FIND THE RIGHT TOOLS, USE THEM FOR LIFE
**A PROUD HERITAGE**  
Since 1925

**CUSTOMER SERVICE**  
Phone: 800-533-6127  
Fax: 800-283-8665  
Email: inquiry@service-solutions.com

**REPAIRS**  
Service Repair  
Phone: 800-344-4013  
Fax: 507-455-4318  
Email: eservice@service-solutions.com

**TECHNICAL SUPPORT**  
Phone: 800-533-6127  
Fax: 800-955-8329  
Email: tech@otctools.com

**INTERNATIONAL SALES**  
Phone: 507-455-7223  
Fax: 507-455-7063  
Email: intl.inquiries@service-solutions.com

**MAILING ADDRESS**  
Bosch Automotive Service Solutions  
28635 Mound Road  
Warren, MI 48092 USA

**PUBLISHER:** Alison Accavitti  
**EDITOR / MEDIA INQUIRIES:** Justin Fisette  
**DESIGN TEAM:** Cameron Payne,  
Kimi Blackledge, Milt Taylor  
**PRODUCT TEAM:** Denny Hanson,  
Rob Kochie, Dirk Skogerboe,  
Marc Rosone

---

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Service</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE &amp; EXHAUST SERVICE</td>
<td>1-20</td>
</tr>
<tr>
<td>FUEL SERVICE</td>
<td>21-32</td>
</tr>
<tr>
<td>OIL SERVICE</td>
<td>33-38</td>
</tr>
<tr>
<td>COOLANT SERVICE</td>
<td>39-42</td>
</tr>
<tr>
<td>LUBRICATE/AIR SERVICE</td>
<td>43-44</td>
</tr>
<tr>
<td>TRANSMISSION SERVICE</td>
<td>45-49</td>
</tr>
<tr>
<td>DRIVE AXLE SERVICE</td>
<td>50-54</td>
</tr>
<tr>
<td>STEERING SERVICE</td>
<td>55-60</td>
</tr>
<tr>
<td>SUSPENSION SERVICE</td>
<td>61-67</td>
</tr>
<tr>
<td>HUB SERVICE</td>
<td>68-72</td>
</tr>
<tr>
<td>BRAKE SERVICE</td>
<td>73-79</td>
</tr>
<tr>
<td>WHEEL &amp; TIRE SERVICE</td>
<td>80-84</td>
</tr>
<tr>
<td>BATTERY SERVICE</td>
<td>86</td>
</tr>
<tr>
<td>ELECTRICAL SERVICE</td>
<td>87-90</td>
</tr>
<tr>
<td>A/C SERVICE</td>
<td>91-92</td>
</tr>
<tr>
<td>BODY SERVICE</td>
<td>93-102</td>
</tr>
<tr>
<td>FASTENER SERVICE</td>
<td>103-108</td>
</tr>
<tr>
<td>PLIERS &amp; CUTTERS</td>
<td>109-114</td>
</tr>
<tr>
<td>STRIKE/STRUCK</td>
<td>115-117</td>
</tr>
<tr>
<td>GENERAL PURPOSE</td>
<td>117-118</td>
</tr>
<tr>
<td>PULLERS</td>
<td>119-136</td>
</tr>
<tr>
<td>MOTORCYCLE/POWERSPORT</td>
<td>137-158</td>
</tr>
<tr>
<td>HEAVY DUTY TOOLS &amp; EQUIPMENT</td>
<td>159-198</td>
</tr>
<tr>
<td>SHOP EQUIPMENT</td>
<td>199-234</td>
</tr>
</tbody>
</table>

---

Cover: Steve Cross, Drop Forge Operator of 40 years

“I’M PROUD OF THE OTC BRAND. I’M MAKING A BRAND THAT’S BEEN AROUND A LONG TIME. ANY GUY THAT’S WORKED ON A CAR HAS HEARD OF THE OTC BRAND, AND THEY PROBABLY HAVE USED IT.”
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGINE</strong></td>
<td></td>
</tr>
<tr>
<td>Ford Engine Tools</td>
<td>2 – 6</td>
</tr>
<tr>
<td>GM Engine Tools</td>
<td>7 – 9</td>
</tr>
<tr>
<td>Chrysler/Jeep Engine Tools</td>
<td>10</td>
</tr>
<tr>
<td>Import Engine Tools</td>
<td>11</td>
</tr>
<tr>
<td>Cam Holders / Sets / Flange-Type Puller Sets</td>
<td>12</td>
</tr>
<tr>
<td>Harmonic Balancers / Belt tools</td>
<td>13</td>
</tr>
<tr>
<td>Serpentine Belts / Pulley Tools</td>
<td>13</td>
</tr>
<tr>
<td>Frost Plug Remover/Installer, Piston Ring</td>
<td>15</td>
</tr>
<tr>
<td>Compressor Sets</td>
<td>15</td>
</tr>
<tr>
<td>Glow Plug Tools / Spark Testers</td>
<td>16</td>
</tr>
<tr>
<td>Compression Tester Kits</td>
<td>17</td>
</tr>
<tr>
<td>Vacuum / Preluber/ Diesel Compression Tester</td>
<td>18</td>
</tr>
<tr>
<td>Double Edge Screw Extractors</td>
<td>19</td>
</tr>
<tr>
<td>Drilling Guide System</td>
<td>19</td>
</tr>
<tr>
<td>Automatic Center Punch</td>
<td>19</td>
</tr>
<tr>
<td>Hose &amp; PVC Cutters</td>
<td>20</td>
</tr>
<tr>
<td><strong>EXHAUST</strong></td>
<td></td>
</tr>
<tr>
<td>Flexihead 02 Sensor Wrench, Oxygen Sensor Sockets and Sets, Exhaust Back Pressure Gauge</td>
<td>20</td>
</tr>
</tbody>
</table>
6690
Ford Master Cam Tool Kit
- Contains 40 tools to ensure correct cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.
- Application guide with diagrams and blow molded case included.

6690-1
Ford Cam Tool Kit Update
- Contains 18 tools, with case locations for addition of the popular 6489 Ford Cam Tools, making a 6690 Kit.
- Ford Cam Tools ensure correct cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.
- Application guide with diagrams and blow molded case included.

6489
Ford Cam Tool Kit
The OTC Ford cam tools ensure correct cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.
Ford cam tool kit containing all 22 cam tools covering 1992 thru 2012 for over 50 applications, in a molded storage case.

FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM

Ford cam tool applications can be found at www.otctools.com by entering the part numbers into the search bar. Note: Some applications require more than one tool to accomplish the task.
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Similar to Ford</th>
<th>6486A</th>
<th>6487</th>
<th>6488</th>
<th>6489</th>
<th>6498</th>
<th>6680</th>
<th>6681</th>
<th>6682</th>
<th>6683</th>
<th>6690</th>
<th>6690-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>6009</td>
<td>Cam positioning Tool (pair)</td>
<td>303-380</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6020</td>
<td>Cam Positioning Tool</td>
<td>303-413</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6024</td>
<td>Crankshaft Positioning Tool</td>
<td>303-448</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6466</td>
<td>Crankshaft Sensor Positioner</td>
<td>303-354</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6467</td>
<td>Cam Sensor Sync Tool</td>
<td>303-358</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6468</td>
<td>Cam Pulley Holding Tool</td>
<td>303-398</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6469</td>
<td>Cam Sensor Sync Tool</td>
<td>303-562</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6470</td>
<td>Cam Sensor Sync Tool</td>
<td>303-630</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6471</td>
<td>Cam Sensor Sync Tool</td>
<td>303-453</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6472</td>
<td>Cam Sensor Sync Tool</td>
<td>303-529</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6473</td>
<td>Cam Sensor Sync Tool</td>
<td>303-589</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6474</td>
<td>Cam Alignment Tool</td>
<td>303-465</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6475</td>
<td>Crankshaft TDC Timing Pin</td>
<td>303-574</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6476</td>
<td>Cam Positioning Tool Set</td>
<td>303-5568</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6477</td>
<td>Cam Holding Tool</td>
<td>303-557</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6478</td>
<td>Cam Gear Holding Tool</td>
<td>303-564</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6479</td>
<td>Crankshaft Holding Tool</td>
<td>303-573</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6480</td>
<td>Cam Holding Tool Adapter</td>
<td>303-576</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6481</td>
<td>Cam Holding Tool</td>
<td>303-577</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6482</td>
<td>Cam Gear Holding Tool Adapter</td>
<td>303-578</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6483</td>
<td>Cam Sensor Sync Tool</td>
<td>303-638</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6484</td>
<td>Timing Chain Tensioner Tool</td>
<td>303-571</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6485</td>
<td>Cam Gear Bolt Socket &amp; Ext.</td>
<td>303-565, 303-575</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525216</td>
<td>Camshaft Positioning Tool Assy</td>
<td>303-445</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525217</td>
<td>Camshaft Holding Tool</td>
<td>303-446</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525218</td>
<td>Camshaft Holding Tool</td>
<td>303-1248</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7419</td>
<td>Tensioner Retaining Pin Set</td>
<td>none</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567611</td>
<td>Timing Chain Tensioner Assy</td>
<td>303-1532</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567613</td>
<td>Crankshaft Alignment Tool</td>
<td>303-645A</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567614</td>
<td>Cam Phaser Holding Tool</td>
<td>303-1046</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567617</td>
<td>Timing Chain Locking Tool</td>
<td>303-1175</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567618</td>
<td>Camshaft Holding Tool</td>
<td>303-1248</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567619</td>
<td>Chain Tensioner Hold Down Tool</td>
<td>303-1530</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567620</td>
<td>VCT Alignment Tool</td>
<td>303-1097</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567621</td>
<td>Camshaft Holding Timing Tool</td>
<td>303-3768</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567622</td>
<td>Crankshaft TDC Timing Pin</td>
<td>303-507</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567623</td>
<td>Crankshaft TDC Timing Pin</td>
<td>303-748</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>567649</td>
<td>Camshaft Holding Tool</td>
<td>303-550</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Engineering Service
Automotive Specialty Tools

6024 Ford Crankshaft Positioning Tool
- Designed for use on Ford 1993–2012 4.2L, 4.6L 4-valve, 5.4L V8, and 6.8L V10 engines when installing timing chains. These engines are not free wheeling, and if an engine has “jumped time,” it is possible the cylinder heads have to be removed because of damage to the valves or pistons.
- Easily installs over the crankshaft and engine front cover alignment dowel to position the crankshaft at top-dead-center — the correct position for timing chain installation. OTC recommends the No. 6024 be used with Nos. 6009 and 6020 (but it is not required).

6680 Ford 3.9L 4V Cam Tool Set
- The 6680 is designed to service Ford 3.9L 4V engines used in 2000-2006 Lincoln LS cars.

6682 Ford 3.5L & 3.7L 4V Cam Tool Set
- Ford 3.5L 4V V6 engines used in 07-12 Edge & MKZ, 07-09 MKX, 08-12 Taurus & Taurus X & Sable, 10-12 Fusion, 10-12 MKZ & MKS & MKT, 11-12 Explorer & F150.
- Ford 3.7L 4V V6 engines used in 09-12 MKS, 10-12 MKT, 11-12 Mustang & F150 & MK2 & Edge.

6683 Ford 3.6L 4V Cam Tool Set
- Works on Ford 1.6L 4V L4 engines used in 11-12 Fiesta.

6684 Ford 3V Valve Spring Compressor
- Designed to compress valve springs on a Ford 3V 4.6L & 5.4L.
- Similar to OE p/n 303-1039.

6498 Ford 4.6L & 5.4L 4-Valve Cam Timing Kit
- Saves time; all tools required for camshaft timing are in one kit.
- Set Includes:
  525216 – Camshaft positioning tool
  525217 – Camshaft holding tool
  6024 – Crankshaft positioning tool
  525218 – Secondary chain tensioner tool

7928 Ford Valve Spring Compressor Tool
- Compresses valve springs for quicker, easier camshaft, valve seal, valve spring, or retainer service—because you don’t have to remove the head from the engine first! It’s an OEM-approved tool that you use with a 3/8” ratchet or breaker bar. Works on: 1991–2004 Ford vehicles with 4.6L, two-valve, V8 engines; 4.6 4V, 5.4 V8 and 6.8 V10.
6918

Ford Spark Plug Remover Kit, 3V Engine
- Unique design helps prevent breakage by locking the plug porcelain core to the plug hex allowing it to turn as one complete unit.
- Will also pull plug porcelain core if plug hex only is removed.
- Detailed Instructions to maximize success rate.

Works on:

6900

Ford Spark Plug Socket
- This unique design works on 2004–newer Ford vehicles with 5.4L, 4.6L, V8, 6.8L, V10, 3-valve engines.
- Socket end is 9/16”. Soft rubber insert holds and protects spark plug during removal and installation.
- Extension is part of the socket. Easily fits down spark plug tube in cylinder head.
- Socket has a 3/8” drive for use with a ratchet or breaker bar.

5607

Compression Tester Ford 14mm Adapter
Use with OTC compression testers to access hard to reach spark plug holes.
- Works on 2004 and 2007 Ford 4.6 and 5.4 L, V-8, 3-valve engines.
- Easy-to-turn feature makes starting thread fast.
- Use with compression testers with 14 mm thread.

5608

Compression Tester Ford 12mm Adapter
Use with OTC compression testers to access hard-to-reach spark plug holes.
- Works on 2008 and newer Ford 4.6, 5.4 and 6.8L 3-valve engines with 12mm spark plugs.
- Easy-to-turn feature makes starting thread fast.

7483A

Water Pump Puller Remover/Installer
Helps remove and install water pump pulleys faster and easier on specific Ford, Lincoln and Mercury 3.0L DOHC engines. The puller works on the below vehicles with a Ford 3.0 DOHC engine:
- Ford Escape 2001–2012
- Ford Fusion 2006–2012
- Ford Taurus 2001–2005
- Lincoln MKZ 2007–2012
- Mercury Mariner/Milan 2006–2011
- Mercury Sable 2001–2005

7834

Ford Rear Crankshaft Seal Installer
- This installer works on crankshaft rear oil seals that come with or without a metal wear sleeve.

7835

Ford Rear Main Oil Seal Kit
- A complete kit with the tools you need to correctly remove and install the rear main oil seal and wear ring on the crankshaft.
- Eliminates makeshift methods of seal removal and installation that could damage the new seal or crankshaft.

7836

Ford Rear Main Seal Installer
- This installer is the most accurate way to ensure that the rear main seal is set to the correct depth on the crankshaft. The installer fits over the seal, and with the two bolts included, attaches to the engine crankshaft.
- By alternately tightening the bolts, the seal is pulled into place quickly, easily, and with no damage to the rear main seal.
**ENGINE SERVICE**

**AUTOMOTIVE SPECIALTY TOOLS**

**EGR Valve Puller**
- Removes EGR valve.
- Similar to 303-1267A

**Ford 6.0L Glow Plug Release Tool**
Safely remove and install the glow plug harness on 2004-2009 Ford 6.0L Diesel engines.

**Ford Diesel Compression Test Adapter**

**Ford Oil Line Disconnect Tool for 6.0 L**
- Use to disconnect the high-pressure oil rail supply line from the fuel rail when removing fuel injectors.

**Ford 5-pin Connector Harness for Glow Plug Testing**
- Provides an easy way to check glow plug resistance without having to remove the valve cover of 1994–98 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
- Used with any standard digital volt ohmmeter to check glow plug resistance.

**Ford Diesel Fan Clutch Wrench**
- This is a required tool to tighten or loosen the fan clutch on the water pump.
- Wrench has a 68.45 mm (2-11/16”) opening.

**Ford Engine Adapters**
- 6.0L and 6.4L Ford engine adapters. (Works with both the OTC 1735 and OTC 1735A).

**EGR Valve Puller**
- Designed for use with OTC No. 7205E1 holding tool to remove fan clutch assembly.
- Has the same size opening as the OTC No. 7205E2 wrench, but has a special bend in the handle to provide clearance for accessories found on some vehicles.

**Ford 6.0L Diesel Fan Clutch Wrench**

**Ford Diesel Fan Clutch Wrench**
- Similar to Ford No. 303-755

**Ford High Pressure Oil Line Disconnect Tool**
- Use to disconnect the high pressure oil line from the cylinder head.

**Ford Engine Adapters**
- Similar to Ford No. 303-591

**Ford 6.0L Diesel Fan Clutch Wrench**
- Similar to Ford No. 303-774

**Compressor Tester**
- Use with OTC No. 5021 diesel engine compression gauge.
GM IN-LINE 4-CYLINDER CAM TOOL SET

6685
GM In-line 4-Cylinder Cam Tool Set
• Comprehensive tool kit designed to save time when servicing GM 4-cylinder engines.

GM cam tool application can be found at www.otctools.com by entering the part numbers into the search bar.
Note: Some applications require more than one tool to accomplish the task.

GM In-line 4-Cylinder Cam Tool Set includes the following:

527045 Camshaft Timing Alignment Pins
Similar to GM J-36008A

527046 Camshaft Sprocket Wrench
Similar to GM J-36013

527049 Camshaft Sprocket Wrench
Similar to GM J-39579

527056 Camshaft Sprocket Holding Tool
Similar to GM J-43655

532174 Timing Chain Tensioner & Shoe Retainer

532195 Timing Chain Tensioner Retainer
Similar to GM J-36589

536172 Camshaft Holding Tool
Similar to GM J-44221

6675 (536173) Timing Belt Adjuster
Similar to GM J-42492A

536174 Camshaft Gear Holder
Similar to GM J-43299

536176 Camshaft Gear Holder
Similar to GM J-43299

536178 Crankshaft Pulley Holder
Similar to GM J-38122

536181 Camshaft Sprocket Holding Tool
Similar to GM J-44222.

536186 Timing Chain Holder
Similar to GM J-44217-1

536187 Timing Chain Holder
Similar to GM J-44217-2

536254 Camshaft Timing Alignment Pin

536255 Timing Chain Tensioner Retainer

536265 Timing Chain Holder
Similar to GM J-44217-46

527061-1 Timing Chain Tensioner Loading Tool
Similar to GM J-45027

527061-2 Timing Chain Tensioner Loading Tool
Similar to GM J-45027

FOR MORE DETAILS VISIT OTCTOOLS.COM
6686
GM NorthStar V8 Cam Tool Set
- Kit is indispensable for quickly and correctly servicing GM NorthStar 4.0L and 4.6L V8 engines.
- Set Includes:
  - Cam Chain Tension Holder
  - Camshaft Holding Tool
  - Cam Gear Holding Tool
  - Crankshaft Sprocket
  - Timing Belt Tensioner
  - Timing Chain Retention Tool
  - Timing Chain Retention Tool (qty. 2)
  - Timing Chain Retention Tool

6687
GM 6 Cylinder Cam Tool Set
- Required tools to adjust and hold camshaft timing on GM 3.0 and 3.2 V-6 engines.
- Kit is designed to save shop time when servicing GM 3.0 and 3.2 V-6 engines.
- Set Includes:
  - Camshaft Locking Tool
  - Camshaft Locking Tool
  - Crankshaft Holding Tool
  - Camshaft Alignment Gauge
  - Timing Belt Installation Tool
  - Timing Belt Tensioner Wrench
  - Crankshaft Socket

6688
GM In-line 5, 6, or V6 Cam Tool Set
- Comprehensive tool kit designed to save time when servicing GM 5-, 6-cylinder engines.
- Tools are actually easier to use than the original OE essential tools.
- Set Includes:
  - Camshaft Holding Tool
  - Camshaft Holding Tool
  - Camshaft Locking Tool
  - Camshaft Locking Tool
  - Timing Belt Tensioner
  - Timing Belt Tensioner
  - Timing Chain Retention Tool
  - Timing Chain Retention Tool

6690A
GM Water Pump Holding Tool
- 1/2” sq. drive for use with 1/2” drive breaker bar or ratchet.
- Tool is designed to self-center in the water pump housing, allowing the tangs to fully engage the water pump for removal or installation.
- Similar to J-38816A

6744
Tensioner Retaining Pin
- Relieves the tension on the timing chain tensioner for camshaft, actuator, and timing chain service. Engages the tensioner arm and moves it forward to disengage the ratchet mechanism. Similar to EN-50837.

6746
Timing Chain Holding Tool
- This holding tool retains the timing chain position relative to the crankshaft position. The tool clamps around the timing chain pins on both the intake and exhaust sides of the cylinder head, allowing the cams to be serviced. Similar to EN-50656.

6754
Diesel Fuel Pressure Gauge
- Designed to test fuel pressure on GM Duramax diesel engines.
- Similar to J-44638.

6757
GM Duramax Injector Pullers
- From 2001 - 2004, Similar to J-44639
- From 2005 - 2011, Similar to J-46594

6777
GM Water Pump Holding Tool
- From 2005 - 2011, Similar to J-44639
- From 2005 - 2011, Similar to J-46594

Similar to J-43651

7911
GM crankshaft balancer pulley adapter set. Includes shoulder bolts and spacer adapter only.

7912
GM Crankshaft Balancer Puller Kit and Adapter Set
- Everything you need to pull harmonic balancers having three tapped holes. The shoulder bolts are designed to prevent them from being installed too deeply, protecting the crank sensor and/or interrupter rings from damage. The spacer adapter gives the puller’s forcing screw something to push against. The kit works on 1990–2002 3300 and 3800 V6 engines. The No. 7911 adapter set consists of the spacer adapter and shoulder bolts only, for use with your No. 518 or No. 6930 flange-type puller.
- Includes No. 518 flange-type puller and No. 7911 adapter set.
6758
Front Crank Seal Installer
- Installs the front crank seal with the cover on or off the engine. The bolt is threaded into the crankshaft and the nut is tightened to seat the seal. Similar to EN-50820 & EN48034.

6668
Harmonic Balancer Puller Kit
A combination puller kit for GM, Ford, and Chrysler. Includes the coverage of the 7912 and 6667 harmonic balancer puller kits.

6706
Injector Rail Assembly Remover
- Used for removal of the direct injection fuel rail without damage. The rail assembly must be removed as straight as possible to prevent damaging an injector bore in the cylinder head or the mount assembly.
- Similar to EN-49248.
- Applications: 2007-2014 General Motors Direct Injection Engines including those used in Pontiac, Saturn, Cadillac and Chevrolet vehicles.

6788
Pan Seal Cutter
Designed to separate oil pan seals, the cutter is pressed into the sealant and struck with a hammer to cut through the oil pan seals. Other methods may damage the oil pan and/or sealing surfaces. Similar to J-37228. Works on most vehicles.

6677
Timing Chain Retainer
The tools retain the timing chain and lower sprocket positions while servicing the upper sprockets, camshafts, valve springs, or valve seals on 2011 and later 2.0L and 2.4L Ecotec engines. The tool has two toothed feet that engage the chain and hold it against the guide to retain tension as the tensioner and upper guide bolt are removed. Also used for cylinder head replacement. Similar to EN-48749.

6553
Connecting Rod Guides
- Set of two connecting rod guides protect the crankshaft bearing surface from damage during piston and connecting rod removal or installation. Guides install onto the connecting rod after the cap is removed and help prevent nicking or scratching. Similar to EN-51454.
- Applications: For use on rods with M8 X 1.0 threads.

6691
Camshaft Retaining Tool
Oversized retaining plates lock camshafts together at top dead center (TDC) on GM 2.8L 3.0L and 3.6L DOHC engines. Three-plate set is used to tighten both sets of cams to prevent them from turning while setting timing. Extra-large size prevents valve covers from being installed with the plates in place, protecting the engine. Similar to EN-48383.
6689 Chrysler/Jeep Cam Tool Set
The Chrysler/Jeep cam timing tools are provided to ensure correct cam timing when servicing timing belts, chains, head gaskets, or performing other valve train repairs. These 15 tools are based on OE designs and are offered to service the following applications:
Cam positioning is an important procedure. If cam timing is not correct, the engine may still run, but emissions and mileage will be affected. The engine computer may also initiate the “Check Engine” light.
Set Includes:
- 513990 Crankshaft Damper Puller
- 522888 Camshaft Alignment Tools
- 522889 Camshaft Sprocket Holder
- 522890 Timing Chain Tensioner Reset Tool
- 522891 Harmonic Balance Holding Ring
- 522892 Timing Chain Wedge
- 522893 Timing Chain Wedge
- 522894 Camshaft Wrench
- 522896 Idler Shaft Remover
- 522897 Tensioner Lock Pin
- 522898 Camshaft Holding Pins
- 522899 Timing Belt Tensioner
- 522900A Timing Belt Tensioner Tool
- 522901 Timing Belt Wrench
- 522902 Secondary Timing Chain Holder

6075 Chrysler Crankshaft Damper Remover/Installer Kit
3-jaw puller is used with the insert to remove the crankshaft damper whenever timing belt, water pump, or front cover service is required. The tool kit includes a damper installing tool with bearing.
• Services Chrysler-built 2.0L, 2.4L, 2.5L, 3.3L, and 3.5L engines.
• 1995–2010 3.3L and 3.5L V6 used in Chrysler New Yorker and Concorde, Dodge Intrepid, and Eagle Vision; 1995–newer 2.0L, 2.4L 4-cyl., and 2.5L V6 used in Cirrus, Stratus, and Breeze; 1995–newer 2.0L 4-cyl. used in Neon.

7999 Chrysler Camshaft Alignment Tool Set
These special brackets are necessary to ensure exact alignment of the camshaft sprockets during timing belt installation on all 1993–2010 vehicles with a 3.5L OHC engine.

7222 Injector Tube Remover/Installer
• Removes injector tubes for service and re-install.
• Fits GM 6.6L Duramax Diesel, 2001 to present.
• Similar to J-45910.

7223 Glow Plug Bore Reamer
• Reams glow plug bores for proper replacement of glow plugs.
• Fits GM 6.6L Duramax Diesel, 2001 to present.
• Similar to EN-51249.

6495 Chrysler Harmonic Balancer Holding Tool
• Designed as a holding ring with three pins to fit into the openings on a harmonic balancer.
• Use with a 1/2” ratchet or breaker bar to hold the harmonic balancer in place when turning the bolt that holds the balancer to the crankshaft. Also use to hold the balancer when removing it from the engine.

6293 Distributor Bushing Installer/Reamer
• Used to install the distributor drive shaft lower bushing into the engine block. Then use this same tool to ream the new bushing so the distributor drive shaft correctly fits into the bushing.
• Works on Chrysler, Dodge, and Plymouth 3.9L V6, 5.2L & 5.9L V8 vehicles with distributors.
• Compatible with OEM and aftermarket distributor drive bushings.

6667 Harmonic Balancer Puller
Designed for removing damper pulleys in tight engine compartments, without removing the radiator. Use on the following:
• Chrysler engines from 1990–later, including 2.0L, 2.4L-cyl. plus 2.5L, 2.7L, 3.3L, 3.5L, and 3.8L V6s.
• Ford 1995–later V8 engines with 3 spoke pressed on damper.
• Mitsubishi Eclipse 1995–1999 2.0L DOHC non-turbo.
• Kit contains the 3-jaw puller, four lengths of forcing rods, and a forcing screw with a 3/8” square drive for ratchet use, and a 3/4” hex for wrench or socket use.
Replacement rods:
- 537757-4 5/16” x 4”
- 537757-5 5/16” x 5-13/32”
- 537757-6 5/16” x 6-1/2”
- 537757-7 5/16” x 7-13/32”

7997 Chrysler Timing Belt Wrench
2011-2012 Volt. Similar to KM-960.

Chevrolet Sonic, 2012 Aveo, 2011-2012 Cruze, Installs front crankshaft seal on 2012-2013

6742
Crankshaft Seal Installer

4731A
Honda/Acura Dampner Holding Tool
• Holds damper for removal/installation of the crank bolt on Honda/Acura engines.
• 4” offset.
• 1/2” square drive can be used with ratchet or breaker bar.

Works on:

4732
Honda/Acura Crankshaft and Harmonic Balancer Holder
• Allows the crankshaft pulley and/or harmonic balancer bolt to break loose.
• Includes tool necessary to properly counter the rotation of the crankshaft pulley/harmonic balancer during removal and reinstallation of crank bolt.
• Secures the pulley in place not allowing it to rotate during removal and reinstallation of crank bolt.

7219
Oil Pressure Adapter
• Allows for engine oil pressure to be measured.
• Installs in place of oil filter providing ports to attach oil pressure tester.
• Dual port for bottom or side tester connection.
• Installs with 11/16” (17mm) hex drive socket.
• Fits GM 4.8L, 5.3L, 5.7L, 6.0L engines, 1996-Present.
• Similar to J-42907.

7447
Cover Alignment Tool
• Aligns front and rear timing chain/crank seal cover.
• Fits GM 4.8L, 5.3L, 5.7L, 6.0L engines, 1996-Present.
• Similar to J-41476.

7481
Supply Tube Removal Tool
• Removes high pressure fuel supply tube.
• Fits Ford 6.0L diesel engines, 2003-2010.
• Similar to 303-1164.

6613
Variable Pin Spanner Wrench
• Universal design fits many different types of pulleys having slots or holes, including camshaft pulleys and crankshaft pulleys.
• Wrench is adjustable from 1-1/4 inch to 5 inches; works with a 1/2 inch ratchet or breaker bar.
Set Includes:
526908-1 3.5 mm pin 526908-5 6 mm pin
526908-2 4 mm pin 526908-6 7 mm pin
526908-3 4.5 mm pin 526908-7 10 mm pin
526908-4 5 mm pin 526908-8 Handle

6795
Mercedes-Benz and BMW Fan Clutch Service Kit
• Mercedes-Benz fan clutch holding wrench holds the water pump pulley to allow release of the fan.
• BMW Fan clutch holding wrench holds the water pump pulley in place while loosening the radiator fan. Works on BMW M10, M20, M30, B other late model vehicles. (Holes at 38 mm & 44.5 mm.)
• Mercedes-Benz fan clutch wrench removes the thermo-viscous radiator fans found on Mercedes-Benz vehicles. Works on M-B engines: M111, OM604, OM605, and OM606 (C & E Class; 36 mm opening).
• Mercedes-Benz fan clutch wrench is used to remove or install the fan clutch assembly. Slim shaft handle lets you easily work in tight spaces. Works on M-B engines: M103, M104, M119, and M120 (35 mm opening).
• BMW Fan clutch wrench is used to remove and install the thermo-viscous fan on BMWs and Fords (32 mm opening).
• Universal fan belt adjustment wrench services Mercedes-Benz, Nissan Quest, and Mercury Villager radiator fans and pulley belts. It also can be used for loosening the A/C idler pulley tensioner lock nuts for A/C belt adjustment or replacement. Also contains 2.5 mm, 8 mm, and 10 mm Allen keys.
ENGINE SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7196 Cam Gear Holder, 2 pack
- The holders clamp between the engine block or head and the back of the gear to lock it in place.
- Use on single, dual, or quad cam engines to hold valve timing during belt replacement.
- Excellent for diesel injection pump belt replacement.

7769 Flange-Type Puller Set (Grade 5)
- Versatile puller capable of removing a wide variety of components having tapped pulling holes, including harmonic balancers, gears, crankshaft pulleys, etc.
- Capable of handling 2- or 3-way bolt pulling applications.
- Works on many cars, pickups, SUVs, and small engines.
- Carries the OTC Lifetime Warranty® against defects in workmanship and material.

525 Flange-Type Puller Combination
Two specialty pullers in one box. You get a flange-type puller for removal of harmonic balancers, timing gears, and other parts with two or three tapped holes. You also get a steering wheel, pulley, and flywheel puller. 525 includes: flange-type puller and steering wheel puller with four sets of cap screws.

6930 Flange-Type Puller Combination
Heavy-duty flange puller features a live center forcing screw. Includes two live center forcing screw tips and two sets of commonly used automotive bolts. Puller will work on bolt circles from 1-1/2” to 4-1/4”. Three cap screws, 3/8-24 x 3” long, and three cap screws, 3/8-16 x 3” long.

7793 Master Bolt Grip Set (Grade 8)
- Multi-Purpose applications such as steering wheels, flywheels, harmonic balancers, pulleys and gears with tapped holes.

Contents of set:
- 4-way slotted puller yoke and 2 lengths of hardened “live-center” forcing screws - a set of 3 interchangeable forcing screw tips is included to optimize pressure and prevent “walking”.
- Blow molded case to prevent spilling and each bolt size is molded into the storage compartment.

- Three each of the following bolt sizes:
  - M8 x 1.25 x 90mm
  - M8 x 1.25 x 45mm
  - 1/4-28 UNF x 3"
  - M8 x 1.25 x 65mm
  - 5/16-24 UNF x 3"
  - 5/16-18 UNC x 3.5"
  - 3/8-24 UNF x 1.5"
  - 3/8-16 UNC x 2"
  - 3/8-16 UNC x 3"
  - M10 x 1.5 x 35mm
  - M10 x 1.5 x 35mm
  - Special Stepped Bolts – 1990 & Newer
AUTOMOTIVE SPECIALTY TOOLS

6505
Master Harmonic Balancer Installer
• 13 special adapters make this a complete master harmonic balancer installer set for most car and light truck applications.
• The heavy-duty 7/8” diameter forcing screw has internal threads to fit the threaded adapters.
• Plastic storage tray keeps set components organized for easy selection.

4531
Harmonic Balancer Puller/Installer Set
• For easy removal and installation of most harmonic balancers and drive pulleys which are press-fitted onto the crank-shaft.
• A bearing-centered circular 2/3-way puller flange handles 2-1/2” – 4-1/4” bolt circles. An assortment of metric and fractional bolts and adapters provide wide pulling coverage.
• A heavy-duty, 3/4” dia. forcing screw is internally threaded to fit the eight adapters to install harmonic balancers. Adapter sizes included: M16 x 2.0, M14 x 1.5, M12 x 1.5, 1/2"-20, 7/16"-20, 3/4"-16, 5/8"-18, and 9/16"-18.
• A blow-molded plastic storage case keeps set contents organized and protected from loss.

7654A
Serpentine Belt Installation Tool
• Durable tool provides extra control and reach during serpentine belt installation.
• Works equally well on V-belts and timing belts.
• Three-pin design for immediate push/pull capacity.
• Handle gives technician twisting control to install belts in confined, hard-to-reach areas.

4645
Serpentine Belt Tool
• Fits tensioner pulleys with 13 mm–16 mm, 18 mm hex or 3/8” and 1/2” square drives.
• For hard to access tensioners; there are 13 mm and 15 mm 12-point wrenches built into the handle.
• 13 mm, 14 mm and 15 mm crows foot wrenches also included.

7161
Cummins Engine Turning Tool
This tool makes easy work of manually rotating a Cummins 855 cubic inch engine. It’s essential hardware when you’re bringing pistons to top dead center to adjust injector timing.

7471A
Cummins Engine Barring Tool
Need to manually rotate an engine? This tool makes the job easy. Just insert the tool into the flywheel housing until it engages the ring gear, then attach a 1/2” square drive ratchet or breaker bar and turn. The tool’s load-bearing collar provides friction-free operation while rotating the tool in the housing.
• Works on Cummins B and C series diesel engines and 5.9L liter diesels used in Dodge pickups.

7425
Stretch Belt Service Set
The Stretch Belt Service Set includes an install tool along with a removal tool. Both tools are placed on a pulley which is turned to slip-on or slip-off stretch fit belts without damage.

7424
Belt Holding Tool
• Keeps belt from falling off of a pulley during belt installation.
• Universal design to fit most pulley styles and sizes.
• Super strong magnet to hold the belt firmly on the pulley.
• Multiple holders can be used for belt applications that fit around many pulleys.
• Durable plastic housing with magnet for steel/iron pulley applications.

FOR MORE DETAILS VISIT OTCTOOLS.COM
7419
Timing Tensioner Locking Pin Set
• This pin set is used to lock timing belt or chain tensioners once they have been compressed, required during the service procedure.
• Once the belt or chain service is complete, the pin is simply pulled out to return the tensioner to functional.
• 6 pin set with clip to cover most all applications.

6673
Universal Belt Tension Gauge
• Belt tension gauges are used to check drive belt tension on drive belts to ensure maximum belt and bearing life.
• Scale reads 30–180 lbs.

4475
Grooved Pulley Strap Wrench
• Use to hold a grooved pulley when servicing alternators, water pumps, power steering pumps, etc. Also may be used to rotate the camshaft or crankshaft for engine service.
• Holds tighter than a standard strap wrench.

4652
Adjustable Fan Clutch Holding Tool
• Adjustable jaws fit various water pump pulley bolt patterns.
• Jaws adjust from 1/2" to 8-5/16" opening.
• Jaws lock in place to securely hold water pump bolts.
• Long handle offers leverage for extra torque.

4754
Universal Pulley Holder
• Universal design fits many different size pulleys having slots or holes, such as camshaft pulleys or crankshaft pulleys.
• Wrench is adjustable from 1-1/2" to 8-5/8"; four different size step pins are interchangeable.
• Long handle enables technician to easily hold the pulley when tightening or loosening retaining bolts.

7403
Steering Wheel, Pulley, and Flywheel Puller
Here’s a puller that works in a variety of applications. It pulls steering wheels on most late model cars. It also works as a regular 2/3-way puller to remove pulleys and small engine flywheels. Cap screws included (pairs): 3/8-16 x 3-1/2 in.; 5/16-18 x 3-1/2 in.; 5/16-24 x 3-1/2 in.; M8-1.25 x 90 mm; and 5/16-18 x 4 in. (SIR).
• Works on domestic cars with or without collapsible steering columns.

6617
Alternator Pulley Service Kit
• Overrunning alternator pulley and overrunning alternator decoupler pulley are designed to extend belt life and belt tensioner life. They also make for quieter and smoother accessory drive operation and reduce vibrations in the passenger compartment.
• These tools hold the alternator shaft still so the pulley can be removed or installed.
• A great time saving tool for the technician and the ability to provide a cost saving service for the vehicle owner.

Kit contains:
Decoupler tool assembly
17 mm hex drive
17 mm Allen wrench
110 mm socket extension
28 mm / 21 mm hex cap nut driver
28 mm / 18 mm hex cap nut driver
22 mm hex cap nut driver

6475
Universal Belt Tension Gauge
• Belt tension gauges are used to check drive belt tension on drive belts to ensure maximum belt and bearing life.
• Scale reads 30–180 lbs.
**4603 Frost Plug Remover/Installer Set**

- Designed to remove and install frost plugs used in liquid-cooled gas and diesel engines found in cars, trucks, SUVs, agricultural equipment, and construction equipment.
- Simply use a hammer with the driver and appropriate disc to install frost plugs ranging from 1" to 2-3/8" in diameter.

**Set contains:**
- 4603-1 Installer Handle (18" lg.)
- 4603-2 Frost Plug Remover
- 4603-3 Frost Plug Disc Set (7 ea., plus 1 retaining nut)

---

**4604 Frost Plug Installer Set**

- Designed to install frost plugs in liquid-cooled gas and diesel engines found in automobiles, trucks, SUVs, agricultural equipment, and construction equipment.
- Simply use an air hammer with the driver and appropriate disc to install frost plugs ranging from 1" to 2-1/16" in diameter.

**Set contains:**
- 4604-1 Driver (14" lg.)
- 4604-2 Frost Plug Disc Set (3 qty.).

---

**4838 Piston Ring Compressor Set, 6 Piece**

This 6 ring set covers 2 7/8" thru 4 3/8" piston diameters. The ring compressor pliers feature a ratcheting lock to hold the handles in position for easy piston installation.

---

**4842 Heavy Duty Valve Spring Compressor**

Used to compress valve springs for removal or installation. The heavy duty C-frame has a 9" opening and a 5" throat. Kit includes 16mm, 19mm, 23mm, 25mm, and 30mm valve spring retainer adapters.

---

**4839 Adjustable Piston Ring Expander Pliers**

These simple pliers include tips designed to capture the ends of piston rings to hold and expand them securely while installing onto pistons.
### Universal Overhead Valve Spring Compressor
- Permits removal and installation of valve springs without removing the cylinder head on many cars and light trucks. Durable steel construction.
- Spring loaded offset jaws easily grip and compress valve springs.

Similar to Ford 303-567

### Ford Valve Spring Compressor Tool
Compresses valve springs for quicker, easier camshaft, valve seal, valve spring, or retainer service—because you don’t have to remove the head from the engine first! It’s an OEM-approved tool that you use with a 3/8” ratchet or breaker bar. Works on: 1991–2004 Ford vehicles with 4.6L, two-valve, V8 engines; 4.6 4V, 5.4 V8 and 6.8 V10.

### Compression Tester - Deep Well Connector
- Solid steel 8” length shaft.
- Upper t-wing grip for ease of installation and removal.
- Popular 1/4 mm thread for both flat and tapered seat plugs.
- Corrosion resistant nickel plated finish.

### Glow Plug Remover
Set includes 10 mm and 12 mm split nuts, three spacers (3/16”, 1/4”, and 5/16”), plastic storage/orGANizer case and instructions. The 10 mm split nut will work on Ford 6.9L and 7.3L diesels; GM 6.2L, and 6.5L diesels; and various diesels in import vehicles. The 12 mm split nut works on various diesels in import vehicles, plus many agricultural and construction diesel applications.

### Electronic Ignition Spark Tester
Check for spark on gasoline engines used in import and domestic cars and trucks, plus small engines.

### Scraper Set
- Scrapers feature polished, heat-treated, stiff, stainless steel blades. Handles are ergonomic two-component plastic and feature a non-slip grip and steel bolstered end.
- Packaged in a storage tray. Includes: 1-1/4” straight blade, 1-1/4” bent blade, and 2” straight blade.

### Hose Pinch Off Pliers Set, 3 Piece
- Designed to remove vacuum hose or fuel lines (3/16” to 1/2”) from fittings or tubing.
- Simply place the black jaw on the fitting or tubing — the jaw will grip the material. Then use the silver jaw to push the vacuum hose or fuel line off the fitting or tube.

### Vacuum Hose and Fuel Line Removal Tool
- Designed to remove vacuum hose or fuel lines (3/16” to 1/2”) from fittings or tubing.
- Simply place the black jaw on the fitting or tubing — the jaw will grip the material. Then use the silver jaw to push the vacuum hose or fuel line off the fitting or tube.
5606 Compression Tester Kit
Designed for complete compression testing on gasoline engines, including domestic, imports, motorcycles, marine, and small engines. Unique problem solving features for today’s limited space engine compartments.
Features and benefits:
• Corrosion resistant nickel plated finish.
• Adapters work on both flat and tapered seat plugs.
• Extra long 2.5” flex hose gauge assembly with quick coupler, allows easy viewing out of cluttered engine compartment.
• 2-1/2” gauge features chrome bezel and rugged protective outer boot.
• Dual scale gauge reads 0–300 psi and 0–2100 kPa.
• 12” flex-14 mm standard reach.
• 12” flex-14 mm long reach.
• 10 mm, 12 mm, and 18 mm thread adapters.
• Rugged blow molded hard case with removable lid.
• Repair parts kit.

5605 Deluxe Compression Tester Kit
Complete with standard and specialty adapters, this deluxe kit offers a complete package for compression testing on gasoline engines. Kit includes the deep well connector used on recessed plug well style heads and the Ford engine adapter using 16 mm thread plugs.
Features and benefits:
• Corrosion resistant nickel plated finish.
• Adapters work on both flat and tapered seat plugs.
• Extra long 2.5” flex hose gauge assembly with quick coupler, allows easy viewing out of cluttered engine compartment.
• 2-1/2” gauge features chrome bezel and rugged protective outer boot.
• Dual scale gauge reads 0–300 psi and 0–2100 kPa.
• 8” deep well 14 mm connector.
• 5” flex Ford 16mm adapter.
• 12” flex-14 mm standard reach.
• 12” flex-14 mm long reach.
• 10 mm, 12mm, and 18 mm thread adapters.
• Rugged blow molded hard case with removable lid.
• Repair parts kit.

5609 Cylinder Leakage Tester Kit
Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit come complete with adapters for most applications.
Features and benefits:
• Dual 2-1/2” gauges feature chrome bezel and rugged protective outer boot.
• Scales read 0-100 psi and 0-700 kPa.
• Pressure regulated manifold includes quick couplers.
• Long flex 24” 14 mm hose.
• 10 mm, 12 mm and 18 mm thread adapters.
• Blow molded hard case with removable lid.
• Detailed instruction chart.

5610 Transmission/Engine Oil Pressure Kit
This professional kit can be used for domestic and import applications. High and low pressure gauges make this kit useful for both transmission and engine work. Kit comes complete with adapter for most applications. Designed to be used for both static and on road testing.
Features and benefits:
• Large 3-1/2” gauges feature a chrome bezel and rugged protective outer boot.
• Low pressure gauge reads 0–100 psi and 0–700 kPa.
• High pressure gauge reads 0–400 psi and 0–2800 kPa.
• Both gauges include rear hook to allow gauge to be hung conveniently out of the way.
• Gauges and hose assembly incorporate quick couplers for easy disconnect.
• Kit includes 13 adapters and a detailed instruction manual.
• Blow molded hard case with removable lid.
5613 Vacuum/Pressure Gauge Kit
Ideal for testing vacuum lines and components. Accurately tests low-pressure fuel systems. Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit comes complete with adapter for most applications. Pin point hard to find problems such as cracked lines, PCV, fuel pump, fuel filters and more.

Features and benefits:
- Large 3-1/2” gauge features a chrome bezel and rugged protective outer boot.
- Dual purpose gauge reads vacuum and pressure.
- Dual scale gauge reads 0-30 in. Hg vac and 0-70 cm Hg, also reads 0-15 psi and 0-100 kPa.
- Built in rear hook allows gauge to be hung at eye level.
- Adapters for most applications.
- Blow molded hard case with removable lid.
- Detailed instruction chart.

6492 Engine Preluber Kit
- Ensures oil is present to internal engine components on the first start of a new or rebuilt engine, or after major engine work is performed.
- Required to prime the oil pump and fill the oil galleries and internal engine components with clean, new oil.
- Connects to engine oil system at the oil pressure sensor on a variety of domestic and import engines.
- Oil pressure sensor adapters included.

Diesel Compression Tester with Adapters
This easy-to-use compression tester is designed for light- and medium-duty diesel engines equipped with glow plugs. A dual-reading gauge, featuring a push-button release valve, measures compression to 1000 PSI and 7000 kPa. The hose end has quick disconnect fittings. The tester comes with glow plug and nozzle adapters in a handy storage case.

Tester services these engines:
- Cummins B and C
- Navistar DT466/DT360
- Ford/Navistar 6.9L & 7.3L
- Detroit 6.2L & 6.5L
- Hino diesel and Mitsubishi Fuso truck engines

5020 Diesel compression tester with adapters.
5021 Universal diesel engine compression gauge.
304802 Replacement gauge.
Replacement Adapters (available separately)
47484 Hino diesel truck engines with 12 mm x 1.25 thread
217791 Cummins B 3.9L 4 cyl. & 5.9L 6 cyl. ‘89 - 98
308472 Mitsubishi Fuso truck 4D & 6D engines with 10 mm x 1.25 thread
310810 Cummins C 8.3L 6 cyl. ‘88 - ‘96
310832 Ford/Navistar 6.9L & 7.3L, Detroit 6.2L & 6.5L with 10 mm x 1.0 thread
310840 Navistar DT466/DT360

4491 Mechanic’s Stethoscope
- Quick and accurate way to locate vehicle noise.
- Spring diaphragm on end of hose amplifies noise.
- Includes two hose ends: long rod helps pinpoint noises in hard-to-access areas; short adapter helps locate noise in a broader area of the vehicle.
6982DEX
3-Piece Double Edge Screw Extractors
Damaged and frozen bolts can ruin a technician’s ability to make rate. Now broken bolts and screws can be easily removed with the 6982DEX 3Pc Double Edge Extractor Set from OTC.
These industrial quality extractors are manufactured from high strength steel and feature a tapered flute for safe and secure engagement in the bore hole and a unique hex shank design to prevent rounded corners. The 6982DEX from OTC covers screw sizes from #10/M5 to 1/2”/M12. Pre-drill bore hole with 1/8”, 3/16” or 1/4” drill bits (not included). Drive extractor into bore hole for secure engagement. Can be turned in clockwise and counter-clockwise directions for both right and left handed threads. Be prepared for broken bolts and screws - make sure you have the 6982DEX 3-Piece Double Edge Screw Extractor Set from OTC within arms reach!

6982DEX-1  No. 1 Dual Edge Screw Extractor (#10 - 1/4”)
6982DEX-2  No. 2 Dual Edge Screw Extractor (5/16” - 3/8”)
6982DEX-3  No. 3 Dual Edge Screw Extractor (7/16” - 1/2”)

6982DGS
Drilling Guide System
Removing a broken stud can be a tricky, time consuming undertaking. Pro’s know boring a well centered hole is key to using extractors effectively. OTC now offers a solution to assist you with drilling a perfectly centered hole! The 6982DGS from OTC allows you to anchor off a good stud to perfectly center a drilling alignment guide over a broken one. Place the slot of the rail guide over any good hole with appropriate size bushing and loosely secure with good stud. Slide/pivot opening in rail guide over broken stud and insert alignment guide for drilling. Tighten stud to hold alignment and begin drilling.
The OTC 6982DGS comes with 4 alignment guides for “progressive drilling”. To cover most applications we also provide 4 bushings in 6mm, 7mm, 8mm, and 10mm sizes. The OTC 6982DGS is another great quality tool you’ll want in your tool box. Lifetime Warranty. Made in USA.

6982DGS-1  4-Pc Bushing Set
6982DGS-2  4-Pc Guide Set
6982DGS-3  Replacement Rail

6982ACP
Automatic Center Punch
Make a center punch mark without using a hammer! The 6982ACP Automatic Center Punch from OTC keeps one hand free to help you place this tool right in the cross hairs to accurately mark the spot. Creates a wide profile mark - ideal to keep drill bits from wandering. Rotate the knurled portion to adjust the striking force (60N to 130N).
The OTC 6982ACP Automatic Center Punch helps the accuracy and professional result of your project. Use to mark for precision drilling for tap setting or general boring. This industrial quality tool is made from machine steel and is nickel plated. Hand guard makes for a comfortable use - further ensuring accuracy. Also may be used as an emergency window breaking tool. Lifetime warranty.
4509 Straight-Blade Hose Cutter
- Cuts rubber hoses ranging from 1/4” to 1-1/2”.
- Simply place hose in tool and squeeze handle to cut.
- Replacement steel cutter blade No. 4509-1 is available. 4509-1 Replacement hose cutter blade.

4411 Ratcheting Hose & PVC Cutter (Standard)
- Cuts hose and PVC up to 1-3/8” dia.
- Features metal frame and ergonomic handles for high leverage.
- Compound ratcheting action provides maximum cutting power.
- Will also cut cable and wires.

4412 Ratcheting Hose & PVC Cutter (Heavy Duty)
- Cuts hose and PVC up to 1-3/4” dia.
- Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
- Compound ratcheting action provides maximum cutting power.
- Will also cut cable and wires.

7215 Exhaust Back Pressure Gauge
Quickly read back pressure to determine the amount of restriction in an exhaust system. This gauge accurately measures through the oxygen sensor hole. Its large dial clearly shows pressure from 0–8 psi. The system has a stainless steel braided tube to withstand high-heat conditions.
- Includes a universal adapter for vehicles with thermactor systems.
- Works on domestic & imported vehicles.

4500 Flexihead O2 Sensor Wrench
- Flexible head design assists in the removal of stubborn O2 sensors that are 7/8” in diameter, a common size to most vehicles.
- Features allow extensions or wrenches to apply force in tight areas, even on seized components.
- Pivots to allow more angles of placement.

4473 7-Piece Sensor Socket Set
Includes:
- 4673-1 29 mm Vacuum Switch and O2 Socket, 1/2” drive
- 4673-2 7/8” Vacuum Switch and O2 Socket (wide slot), 3/8” drive
- 4673-3 27 mm Thermal Sensor Switch, 1/2” drive
- 4673-4 7/8” Vacuum Switch and O2 Socket (narrow slot), 3/8” drive
- 4673-5 1-1/16” & 1” Oil Pressure Sending Unit Socket, 3/8” drive
- 4673-6 7/8” O2 Sensor Socket, offset 1/2” drive
- 4673-7 7/8” O2 Sensor Socket (low profile), offset 3/8” drive.

4673-8 1-1/16” and 1” Oil Pressure Socket (short access), 3/8” drive

4437 8-Piece Sensor Socket Set
Includes:
- 4673-1 29 mm Vacuum Switch and O2 Socket, 1/2” drive
- 4673-2 7/8” Vacuum Switch and O2 Socket (wide slot), 3/8” drive
- 4673-3 27 mm Thermal Sensor Switch, 1/2” drive
- 4673-4 7/8” Vacuum Switch and O2 Socket (narrow slot), 3/8” drive
- 4673-5 1-1/16” & 1” Oil Pressure Sending Unit Socket, 3/8” drive
- 4673-6 7/8” O2 Sensor Socket, offset 1/2” drive
- 4673-7 7/8” O2 Sensor Socket (low profile), offset 3/8” drive.

7215 Exhaust Back Pressure Gauge
- Includes a universal adapter for vehicles with thermactor systems.
- Works on domestic & imported vehicles.

7677 Exhaust Hanger Pliers
Many cars and trucks have rubber blocks supporting their exhaust system hanger brackets. These pliers will enable you to quickly and easily remove those push- through brackets from their hangers. These pliers feature a two- position slip joint for use on many sizes of hanger blocks.
<table>
<thead>
<tr>
<th>Category</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL</td>
<td>Fuel Injection Service Kits and Clean Fluid ....................................................................</td>
</tr>
<tr>
<td></td>
<td>Noid Lite/ IAC Test Kits</td>
</tr>
<tr>
<td></td>
<td>Fuel Pressure Testers, Line Fluid Stopper Kit,</td>
</tr>
<tr>
<td></td>
<td>Fuel line Fittings</td>
</tr>
<tr>
<td></td>
<td>Full-Coverage Disconnect Tool Set</td>
</tr>
<tr>
<td></td>
<td>Fuel Service Disconnect Tools</td>
</tr>
<tr>
<td></td>
<td>Ford 6.0L Service Tools</td>
</tr>
<tr>
<td></td>
<td>Fuel Pump Wrenches,</td>
</tr>
<tr>
<td></td>
<td>Water Sensor Wrench,</td>
</tr>
<tr>
<td></td>
<td>Hose &amp; PVC Cutters, Tubing Bender and</td>
</tr>
<tr>
<td></td>
<td>Tubing Cutters</td>
</tr>
<tr>
<td>OIL</td>
<td>Drain Plug Pro</td>
</tr>
<tr>
<td></td>
<td>Oil Filter Sockets, Oil line Disconnect</td>
</tr>
<tr>
<td></td>
<td>Tools and Stoppers</td>
</tr>
<tr>
<td></td>
<td>Oil Transfer Tankers, Fluid Evacuation / Brake Bleeding</td>
</tr>
<tr>
<td></td>
<td>Oil Filter Crushers</td>
</tr>
<tr>
<td>COOLANT</td>
<td>Cooling System Pressure Test Kits</td>
</tr>
<tr>
<td></td>
<td>Vacuum/Pressure System Tester,</td>
</tr>
<tr>
<td></td>
<td>Cooling System Guns</td>
</tr>
<tr>
<td></td>
<td>Hose Clamps, Cutters, Disconnect Tools</td>
</tr>
<tr>
<td>LUBRICANT SERVICE</td>
<td>Grease Guns</td>
</tr>
<tr>
<td></td>
<td>Air Blow Guns and Technician Gloves</td>
</tr>
</tbody>
</table>
FUEL SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7448A
Canister-type Fuel Injector Cleaner
The 7448A is used exactly the same way as our original product was designed. Disconnect the vehicle fuel pump, adapt the 7448A to the vehicle's fuel rail. Add a chemical cleaner like OTC7060A.

Connect to shop air supply and set pressure – open the ball valve and start vehicle. When engine stalls, the cleaning process is complete.

With the addition of a quick-connect fitting, the hose is now removable improving storage options – and we include a “blow out” fitting to allow your shop’s air supply to remove residual cleaners from the line – improving the overall life of the product.

The 7448A now includes our Fuel Injection Application Manual – showing OE fuel pressure specs, fuel pump disconnect points return line information and the adapter reference to OTC pressure adapter kits (6550PRO)! Covers vehicles from 1997 through 2013 model years.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>581340</td>
<td>Hose (1/8” NPTF x 6’ long) with connector</td>
</tr>
<tr>
<td>213299</td>
<td>Air regulator</td>
</tr>
<tr>
<td>313575</td>
<td>Gauge 0-100 psi</td>
</tr>
<tr>
<td>517145</td>
<td>Gauge cover</td>
</tr>
</tbody>
</table>

HELP ENGINES RUN BETTER, EXPAND SERVICE OPPORTUNITIES

6550PRO
Pro Master Fuel Injection Service Kit
Covers 100% of vehicles sold in North America market 97–13.

Perform fuel pressure testing, diagnose weak fuel pumps or restricted filters, test for fuel flow and perform leak-down tests. Use to clean injectors and intake systems. Kit includes:

- 0 – 100 PSI Fuel Pressure Gauge.
- 47 of the popular OTC fuel injection adapters, each equipped with a quick-connect Schrader valve.
- Replacement seal kit also included.

6550
Master Fuel Injection Kit
Test fuel injection systems on most GMs, including GM TBI, Ford, Chrysler, and Jeep vehicles. Also works on imports, including CIS and CISE fuel systems.

- 0–100 PSI fuel pressure gauge.
- 35 of the popular OTC fuel injection adapters, each equipped with a quick-connect Schrader valve.
- Replacement seal kit also included.
### CONTENTS OF SETS: • 6550PRO • 6550 (also sold individually)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>518483</td>
<td>Hi-Pressure Gauge 3-1/2&quot;, 0-100 psi (0-7 BAR) with quick disconnect, protective gauge boot, and hanger</td>
</tr>
<tr>
<td>518530</td>
<td>Gauge Hose Assembly with Relief Valve</td>
</tr>
<tr>
<td>518356</td>
<td>CIS/TBI Hose Assembly with Shut-off Valve</td>
</tr>
<tr>
<td>518477</td>
<td>Seal Kit</td>
</tr>
<tr>
<td>518480</td>
<td>Double Ended Hose Adapter; 5/16&quot;, 3/8&quot;</td>
</tr>
<tr>
<td>518478</td>
<td>Single End Hose Adapter; 1/4&quot;, 5/16&quot;, 3/8&quot;</td>
</tr>
<tr>
<td>518495</td>
<td>Schrader Fitting, 308x52 thread (Ford EFI, Ford MPI) Adapter</td>
</tr>
<tr>
<td>518542</td>
<td>Schrader Fitting, 7/16&quot;-20 thread (Chrysler, Jeep &amp; GM)</td>
</tr>
<tr>
<td>518476</td>
<td>5/16&quot; T-Fitting Hair Pin Adapter (Ford)</td>
</tr>
<tr>
<td>518527</td>
<td>3/8&quot; T-Fitting Hair Pin Adapter (Chrysler, Jeep, &amp; GM)</td>
</tr>
<tr>
<td>518534</td>
<td>5/8&quot;-18 External Flare with Schrader Adapter</td>
</tr>
<tr>
<td>518535</td>
<td>5/8&quot;-18 Internal Flare with Schrader Adapter</td>
</tr>
<tr>
<td>518481</td>
<td>16mm x 1.5 External O-ring Adapter</td>
</tr>
<tr>
<td>518472</td>
<td>16mm x 1.5 Internal O-ring Adapter</td>
</tr>
<tr>
<td>518473</td>
<td>14mm x 1.5 External O-ring Adapter</td>
</tr>
<tr>
<td>518474</td>
<td>14 mm x 1.5 Internal O-ring Adapter</td>
</tr>
<tr>
<td>518482</td>
<td>14 mm x 1.5 External O-ring Plug</td>
</tr>
<tr>
<td>518487</td>
<td>16 mm x 1.5 In-Line Adapter (GM TBI)</td>
</tr>
<tr>
<td>518499</td>
<td>Ford Spring Lock Coupling Adapter</td>
</tr>
<tr>
<td>518490</td>
<td>M6 x 1.0 External O-ring Adapter</td>
</tr>
<tr>
<td>518491</td>
<td>M8 x 1.0 External O-ring Adapter</td>
</tr>
<tr>
<td>518492</td>
<td>M10 x 1.0 External Banjo Adapter</td>
</tr>
<tr>
<td>518493</td>
<td>M12 x 1.5 External Banjo Adapter</td>
</tr>
<tr>
<td>518494</td>
<td>M12 x 1.25 External Banjo Adapter</td>
</tr>
<tr>
<td>518501</td>
<td>M14 x 1.50 External Banjo Adapter</td>
</tr>
<tr>
<td>518485</td>
<td>M8 x 1.0 Internal O-ring Adapter (CIS)</td>
</tr>
<tr>
<td>518536</td>
<td>M8 x 1.0 External O-ring Adapter (CIS)</td>
</tr>
<tr>
<td>518537</td>
<td>M8 x 1.0 Internal Long Fitting</td>
</tr>
<tr>
<td>518488</td>
<td>M8 x 1.0 External O-ring Adapter (CIS) (Long)</td>
</tr>
<tr>
<td>518484</td>
<td>M10 x 1.0 Internal O-ring Adapter (CIS)</td>
</tr>
<tr>
<td>518489</td>
<td>M10 x 1.0 External O-ring Adapter (CIS)</td>
</tr>
<tr>
<td>518486</td>
<td>M12 x 1.5 Internal Swivel Adapter (CIS)</td>
</tr>
<tr>
<td>518498</td>
<td>M12 x 1.5 External &amp; Internal Swivel Adapter</td>
</tr>
<tr>
<td>518497</td>
<td>1/4&quot; BSPT External &amp; Internal Swivel Adapter</td>
</tr>
<tr>
<td>518496</td>
<td>M16 x 1.5 External &amp; Internal Swivel Adapter</td>
</tr>
<tr>
<td>518490</td>
<td>M14 x 1.5 Inverted Flare Adapter</td>
</tr>
<tr>
<td>518499</td>
<td>M12 x 1.0 Honda Pulse Damper Adapter</td>
</tr>
<tr>
<td>518491</td>
<td>Fuel Pressure Test Adapter, Studded Rail Style (ø.625/16 mm)</td>
</tr>
<tr>
<td>518492</td>
<td>1/4&quot; T-Fitting Hair Pin Adapter (Honda)</td>
</tr>
<tr>
<td>518493</td>
<td>Schrader Fitting, 7/16&quot;-20 Internal 90 Degree Elbow</td>
</tr>
<tr>
<td>518494</td>
<td>Schrader Fitting, .308x32 Internal 90 Degree Elbow (Ford)</td>
</tr>
<tr>
<td>518495</td>
<td>Fuel Pressure Test Adapter (ø.430/11 mm)</td>
</tr>
<tr>
<td>518496</td>
<td>Fuel Pressure Test Adapter (ø.580/15 mm)</td>
</tr>
<tr>
<td>518497</td>
<td>Fuel Pressure Test Adapter (ø.625/16 mm)</td>
</tr>
<tr>
<td>518498</td>
<td>M8 x 1.0 External Double Banjo EFI Pressure Test Adapter</td>
</tr>
<tr>
<td>518499</td>
<td>M12 x 1.25 External Double Banjo EFI Pressure Test Adapter</td>
</tr>
<tr>
<td>518500</td>
<td>M8 Internal Banjo Fitting</td>
</tr>
<tr>
<td>518501</td>
<td>M12 Internal Banjo Fitting</td>
</tr>
<tr>
<td>518502</td>
<td>Decarbonizing Adapter</td>
</tr>
</tbody>
</table>

*6550PRO also sold individually*
4480
**Basic Fuel Injection Service Kit**
- Performs running, residual, rail and flow rate pressure tests.
- Kit includes adapters, hoses and fittings to test fuel injection systems.
- Kit includes two popular adapters for import vehicles as well as the GM TBI adapter.
- Professional dual scale gauge reads 0-100 PSI and 0-700 kPa with relief valve, fuel discharge hose and rubber boot.
- Packaged in blow molded carrying case.

7649A
**Fuel Injector Cleaning Kit**
Clogged fuel injectors cause sluggish engine performance, poor fuel economy, and a rough idle. You can easily correct such problems with this injector cleaning kit. It works on a wide range of engines, both domestic and imported. Using our 7000A-1 Pro Inject-R Kleen fluid, you can effectively clean injectors, restore their spray patterns, and prevent recurring deposits. The kit also enables you to do low- and high-pressure fuel system tests. It will also work with your shop’s pressurized air supply for more powerful cleaning without expensive propellants.
- Removes carbon from intake and combustion systems when used with fitting No. 7666.
- Includes canister, gauge, hose, fittings, operating instructions.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Description</th>
<th>Tool No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>581340</td>
<td>Hose (1/8” NPTF x 6’ long) with connector</td>
<td>518480</td>
<td>Pressure adapter TBI (5/16” and 3/8”)</td>
</tr>
<tr>
<td>213299</td>
<td>Air regulator</td>
<td>549578</td>
<td>Quick-disconnect 90° elbow fitting (7/16”–20 internal)</td>
</tr>
<tr>
<td>313575</td>
<td>Gauge 0-100 psi</td>
<td>528769</td>
<td>Banjo fitting (M8 internal banjo)</td>
</tr>
<tr>
<td>517145</td>
<td>Gauge cover</td>
<td>314651</td>
<td>Banjo fitting (M10 internal banjo)</td>
</tr>
<tr>
<td>518499</td>
<td>Spring lock coupling adapter</td>
<td>518499</td>
<td>Banjo fitting (M12 internal banjo)</td>
</tr>
<tr>
<td>518495</td>
<td>EFI quick-disconnect fitting (.307-32 internal, Ford)</td>
<td>47955</td>
<td>Fuel injector cleaner (canister)</td>
</tr>
<tr>
<td>7666</td>
<td>Decarbonizing Adapter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Pro Fuel Injection Application Manual**

Over 200 pages of valuable fuel system service information for professional technicians. English, Spanish and French translations for:

- Safety Precautions.
- Fuel System Identification.
- Adapter & Tool Identification.
- General Operation instructions
- PLUS 1997 to 2013
- Make/Model/Year Data points for:
  - Fuel Pressure specifications.
  - Fuel Pump Disabling Location and Procedure.
  - OTC adapter reference.
  - Adapter “break-in” location.

**Pro Inject-R Kleen Fluid**

Clean fuel injectors mean cleaner running, more efficient engines – and lower emissions. This fluid restores injectors' original spray pattern, helps prevent recurring problems, and reduces intake and port deposits.

- No mixing; use right from the can.
- Pro Inject-R Kleen fluid. Case of 12 16-oz. cans.

**Pro Inject-R Kleen Fluid**

- Single can.

**Angle-Tip Relay Pliers**

- Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
- Specially coated tips offer a solid grip on the relay.

**Noid Lite/IAC Test Kit**

Noid Lites are a proven test device to quickly determine if the electrical signal is present at the fuel injector.

- Just plug in and turn over the engine; flashing noid indicates good signal.
- Expanded set of eight Noid Lites cover: GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, and now new applications of Bosch 2 and Multec 2.
- Kit comes in molded plastic case and includes a harness extension that allows for convenient remote viewing from the driver’s seat.

**Tool No.**

<table>
<thead>
<tr>
<th>Description</th>
<th>3050E</th>
<th>3054E</th>
</tr>
</thead>
<tbody>
<tr>
<td>7187 GM TBI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>7188 Bosch PFI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>7601 Ford TBI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>6023 GM Multec 2 Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>7602 GM PFI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>7608 Geo TBI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>7828 GM SCPI Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>6266 Bosch 2 Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>6260 Fiber optic Noid Lite</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>3052S ’82 and newer GM TBI/PFI IAC tester with square 4-pin connector</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>3053S ’87 and newer Model 700 TBI/PFI with flat 4-pin connector</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
FUEL SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7211
Gauge and Hose Assembly
This gauge is designed to work with any of our fittings for testing fuel injection systems. It features a sturdy 3-1/2" dial that reads 0–100 psi. It also has a built-in (100–150 psi) retard to prevent excess pressure damage. The assembly’s disconnect fitting has a check valve to lessen chance of fuel spray.
• Includes 6-ft. bleed hose and 30” pressure hose.
• Bleed valve eliminates air from injection system and can be used to reduce pressure when disconnecting hoses.
• Bleed valve also allows gauge assembly to be used to check fuel pump volume.

306905 Optional pressure hose, 70” long.

5630
Fuel Pressure Tester Kit
Quickly and easily locate any malfunctioning fuel system component, including fuel filters, pressure regulators, fuel lines, and fuel pumps without removing it from the vehicle.
Features and benefits:
• Large, easy-to-read 0–100 psi scale, 0–700 kPa.
• Solid brass fittings.
• Pressure relief valve for safe, clean testing.

7269
GM Fuel Line Fitting Set (3/8”)
• Fits GM vehicles with 3/8” fuel lines.
• Will work on low or high pressure TBI systems.
• Quick, easy, safe. Eliminates makeshift connections that can damage plastic fuel lines or the special connector.
• Use when checking fuel pressure or when cleaning injectors.

7628
GM Fuel Line Fitting Set (5/16”)
• Fits GM vehicles with 5/16” fuel lines.
• Will work on low or high pressure TBI systems.
• Quick, easy, safe. Eliminates makeshift connections that can damage plastic fuel lines or the special connector.
• Use when checking fuel pressure or when cleaning injectors.

5613
Vacuum/Pressure Gauge Kit
• Ideal for testing vacuum lines and components. Accurately tests low-pressure fuel systems. Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit comes complete with adapter for most applications. Pinpoint hard to find problems such as cracked lines.
• Large 3-1/2” gauge features a chrome bezel and rugged protective outer boot.
• Dual purpose gauge reads vacuum and pressure.
• Dual scale gauge reads 0–30 in. Hg vac and 0–70 cm Hg, also reads 0–15 psi and 0–100 kPa.

7631
Fuel return line plug (5/16”)

7433
Fuel return line plug (3/8”)

7342
Quick coupler adapter

528776 Ford EFI adapter

528773 O-ring and washer set for European

528774 O-ring and washer set for Asian
If you’re working on Chrysler, Ford, or General Motors vehicles, this set can make your job easier. The tools are designed for heater hoses, transmission oil coolers, air conditioning and fuel lines. They’re approved by vehicle manufacturers and will not damage the fittings being disconnected. Tool Nos. 518092, 518896, 518897, 518898, 518899, 518900, and 518901 are spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

### Full-Coverage Disconnect Tool Set

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6508</td>
<td>Full-Coverage Disconnect Tool Set</td>
</tr>
<tr>
<td>518092</td>
<td>GM hydraulic clutch line disconnect tool</td>
</tr>
<tr>
<td>518896</td>
<td>Fuel line disconnect tool. (Red, 3/8&quot;)</td>
</tr>
<tr>
<td>519068</td>
<td>3/8&quot; Fuel line disconnect tool</td>
</tr>
<tr>
<td>519151</td>
<td>Quick disconnect tool</td>
</tr>
<tr>
<td>519152</td>
<td>Oil cooler line disconnect tool</td>
</tr>
<tr>
<td>519153</td>
<td>Clutch coupling tool</td>
</tr>
<tr>
<td>519154</td>
<td>Fuel line coupling tool</td>
</tr>
<tr>
<td>519155</td>
<td>Chrysler fuel line disconnect tool</td>
</tr>
<tr>
<td>519156</td>
<td>Ford heater hose disconnect tool</td>
</tr>
<tr>
<td>519157</td>
<td>GM heater line quick connect separator</td>
</tr>
<tr>
<td>519158</td>
<td>Fuel line disconnect tool set</td>
</tr>
<tr>
<td>519159</td>
<td>Transmission oil line tool</td>
</tr>
</tbody>
</table>

**GM hydraulic clutch line disconnect tool**

**GM transmission oil cooler line**

**Toyota A/C tool**

**3/8" & 5/16" Fuel line disconnect tool**

**3/8" & 1/2" Fuel line disconnect tool**

**Heater hose disconnect tool**

**Fuel line disconnect tool set**

**Fuel line disconnect tool. (Gold, 5/16")**

**Fuel line disconnect tool. (Red, 3/8")**

**Fuel line disconnect tool. (Black, 1/4")**

**Fuel line disconnect tool. (Yellow, 3/8")**

**Fuel line disconnect tool. (Red, 3/8")**

**Fuel line disconnect tool. (Black, 5/8")**

**Fuel line disconnect tool. (Blue, 1/2")**

**Fuel line disconnect tool. (Green, 1/2")**

**A/C spring lock coupling tool. (Black, 5/8")**

**A/C spring lock coupling tool. (Blue, 1/2")**

**A/C spring lock coupling tool. (Red, 3/8")**

**A/C spring lock coupling tool. (White, 3/4")**
**6517 Disconnect Tool Set**

Designed for A/C lines, fuel lines, and transmission cooler lines.

- Contains the 3/8" and 1/2" fuel line disconnect tool for Ford vehicles.
- Contains the 5/16" and 3/8" fuel line disconnect tools for GM and Chrysler vehicles.
- Contains the transmission oil cooler line disconnect tool used on many GM and Ford vehicles.

**7363 Fuel Line Disconnect Tool Set**

- This set works on quick connect fuel lines on Ford, GM, and Chrysler, and on the spring lock fuel line couplings on Ford’s popular PFI system.
- Won’t damage fuel line or fuel line connectors.
- Used on 5/16", 3/8", and 1/2" fuel lines.
- Two large tools are spring loaded, durable, and completely enclose the hose, which helps deflect any spray.

**7337 Ford Fuel Line Disconnect Tool Set**

These tools will easily disconnect the spring lock couplings of fuel lines on Ford’s throttle body and port fuel injection systems. The tools are spring-loaded and durable, and they enclose the line to help deflect spray.

- Includes 518896 (3/8” yellow) and 518899 (1/2” green) disconnect tools.

**6603A GM Fuel Line Disconnect Tool**

Applications: 2002—newer Tahoe and light-duty trucks with the 5.3L V8 engine.
- This is a required tool to remove the fuel line from the fuel filter.
- Similar to Kent-Moore No. J-46363.

**519154 Ford Fuel Line Disconnect Tool Set**

Here’s the best tool for easy, frustration-free fuel line separation. As you put the tool on the fuel line coupling, its fingers depress the retaining collar to release the fuel line, preventing component damage.

- Works on 1990 to 1995 Ford Ranger and Explorer models fitted with 4.0L, 6-cylinder engines.

**6554 Fuel / AC Line Disconnect Kit**

- Topside disconnects for AC and Fuel lines.
- Clips, disc, and scissor styles for broad applications.
- Hi-visibility line plugs included.

**6509 3/8” & 5/16” Fuel Line Disconnect Tool**

Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel line fittings and fuel filters, fuel rails, or sending units.

- Similar to Miller No. 8218

**6511 3/8” & 1/2” Fuel Line Disconnect Tool**

Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel line fittings and fuel filters, fuel rails, or sending units. This tool is designed to access the center port on GM fuel tank sending unit.

For 3/8” and 1/2” applications; will also service 2001 thru current 3/4- and 1-ton trucks with the Duramax Diesel engines.

**4506 Rubber Line Clamp Set**

- Set of two clamps. Used to quickly shut off flow from vacuum, brake, and fuel lines.
- Enables you to clamp and hold hose without damage.

**4495 A/C and Fuel Line Disconnect Set**

- Used to remove A/C and fuel line quick-disconnect fittings from hard-to-reach areas.
6770 Ford 6.0L Diesel Service Tool Kit
- 8 of our popular 6.0L Diesel Service Tools in one convenient kit.
- Properly test vehicle systems for leaks and blockage.
- Safely remove and re-install harnesses without damage.
- Oil Line Disconnect Tool, EGR Removal Tool.
- IPR Controller, IPR Socket Tool and Fuel Rail Pressure Adapters.

6765 Ford 6.0L Diesel Injector Pressure Regulator Socket
This Injector Pressure Regulator Socket actually combines two OE tools into one. The socket changed in 2005 – so the socket give you the capability to address either platform.

6766 Ford 6.0L Diesel Terminal Release Tool
This Terminal Release Tool is required for removal of the vehicle’s injector wiring harness without causing damage to the component.

6768 Ford 6.0L Glow Plug Release Tool
Safely remove and install the glow plug harness on 2004-2009 Ford 6.0L Diesel engines.

6763 Ford 6.0L High Pressure Oil Pump Adapters
Pair of pressure testing adapters for the high pressure oil pump which drives the injectors on the Ford 6.0L.

6707 Injector Seal Installer Adapters
Two-piece kit includes tools to properly size the seal and install the seals in the proper groove on the injector tip for leak-free operation. Works to install both seals on the injector tip. Similar to EN-S1097.

5089 Air Brake Line Release Tools
Tools used to separate connectors on the P/S system and EGR coolers without damage. Also works on connectors on other liquid and air lines. Each tool has two sizes. 3/8” and 5/8”, 1/2” and 3/4”. Similar to J-45666 & J-42971.
Applications: 2003-later Medium Duty trucks.

6710 Fuel Pump Installation Gauge
Verifies that the camshaft fuel pump lobe is at base circle position before installing the high pressure fuel pump. Tool indicates the pump may be installed when it is flush to manifold surface. Similar to EN-S1092.

6760 Ford 6.0L & 7.3L Fuel Filter Wrench
Designed to remove and install the fuel filters on the Ford 6.0L & 7.3L Power Stroke diesel engines as well as International / Navistar diesel engines.
- Low profile design for easy access in tight areas.
- Reversible Six lug design provides the convenience of two sizes in one tool.
- Light weight low profile for strength and durability.
- 3/8” drive allows the wrench to be used with a variety of drive tools.

5836 FORD 6.0L & 7.3L Fuel Filter Wrench
Similar to Ford No. 303-765 and 303-766.

6708 Injector Retaining Clip Replacer
Removes and installs the injector retaining clips without over-spreading to ensure proper retention of the injector to the rail. Similar to EN-S1097.

6764 Ford 6.0L Diesel IPR Controller
When a hard start or no start condition exists, the 6764 allows a technician to close the Injector Pressure Regulator in order to determine if proper injector control pressure is achieved and sustained for the starting process.
- Tactile On/Off switch with LED confirming power to the tool and signal to the Injector Pressure Regulator.
- Permits a quick initial diagnosis of the pressure regulator when a hard start-no start situation exists.
- Used in conjunction with any scan tool capable of reading fuel pressure on 6.0L Ford Diesel.

6709 Air Brake Line Release Tools
Similar to Ford No. 303-769 and 303-762.

6711 Fuel Pump Installation Gauge
Similar to Ford No. 303-755.

6712 Injector Retaining Clip Replacer
Similar to Ford No. 303-768.

6707 Injector Seal Installer Adapters
Similar to Ford No. 303-1115.

6708 Injector Retaining Clip Replacer
Similar to Ford No. 303-1114.

6709 Air Brake Line Release Tools
Similar to Ford No. 303-1112.

6711 Fuel Pump Installation Gauge
Similar to Ford No. 303-1113.

6712 Injector Retaining Clip Replacer
Similar to Ford No. 303-1116.

6713 Injector Seal Installer Adapters
Similar to Ford No. 303-1117.
FUEL SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7460 Diesel Fuel Line Wrench
Fuel line nuts are often hard to reach, but this unique 3/8” square-drive tool solve that problem. You can loosen or tighten fuel lines at the fuel injector nozzle or fuel injection pump without damaging the nut.
• Fuel line wrench, 2.6” long. For International 6.9L and 7.3L diesel engines. Fits 5/8” hex nut.

7598 Chrysler Fuel Pump Module Spanner Wrench

6599 Fuel Tank Lock Ring Wrench
Universal design allows tool to fit fuel tank lock rings on Ford, Chrysler, and GM vehicles with gas engines.
• Fits 7-5/16” diameter lock rings.
• Tool easily removes and installs lock ring on the fuel tank when servicing the fuel pump or fuel sending unit.
• Used with a 1/2” drive ratchet or breaker bar.

6752 Fuel Injector Storage Rack with Protective Cups
Designed for the diesel truck market, this tool will work for just about any injector you need to remove for service or replacement.

6753 Protector Cups
A set of eight replacement cups for 6752 Fuel injector storage rack.

6556 Fuel Sender Lock Ring Wrench
Designed for removing the newly-designed 4-1/2” fuel sender lock ring on 2003 – 2011 Cadillac CTS, SRX and STS models. The lock ring requires high torque to loosen and tighten, requiring a specialized tool for service. Standard 3/8” square center drive hole for balance and maximum force available to remove and tighten. Similar to J-45747.

6067 Ford Injector Remover / Installer Kit

FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM
6069
Cummins Diesel Fuel Injector Remover Kit
Kit contains a fuel injector connector tube remover and fuel injector puller. The fuel injector connector tube must be removed before removal of the injector, or both will be damaged.

5060
Detroit Diesel Injector Socket
Used on GM 6.2L and 6.5L engines. This 30 mm socket ensures proper fit during nozzle removal and installation. The 3/8” square drive and 7/8” hex permit easy access in tight quarters, and prevent damage to nozzle and related components.

6916
Duramax Water Sensor Wrench
- Used to remove and install the water sensor on the fuel filter.
- Works on 2001 and Newer 6.6L Duramax Diesel found in Chevrolet and GMC Trucks and Vans.
- 3/8” square drive hole.

6914
6915
Davco Diesel Filter Wrenches
- Found on Caterpillar, Cummins, Detroit Diesel, International, Mack, Mercedes-Benz, Volvo and other engines.
- Durable steel construction.
- Precise, laser-cut angles.
- Opens vent cap also.
- Soft, ergonomic handle.
- Fits Davco Diesel filter models, 232-233-234.
- Fits Davco Fuel filters 382 & 384.

6754
Diesel Fuel Pressure Gauge
- Designed to test fuel pressure on GM Duramax diesel engines.
- Similar to J-44638.

5025
OTC DEF Refractometer
SCR & EPA 2010
EPA regulations require all diesel engines manufactured on or after January 1, 2010 to meet lowered NOx emissions standards.
- Most heavy duty engine (Class 7-8 trucks) manufacturers, have chosen to utilize SCR. This includes Detroit Diesel (DD13, DD15, and DD16 models), Cummins (ISX line), PACCAR, and Volvo/Mack.
Application:
The refractometer is a portable, precision, optical instrument used for measuring the Diesel Exhaust Fluid (DEF) concentration. When a liquid sample is placed on the prism, the light passing through it is bent. The more concentrated the liquid, the more the light will bend. The refractometer contains a reticle, or scale, that is enlarged through the eyepiece to measure this light. The values on the scale have been established to evaluate the DEF condition.

6778
6779
GM Duramax Injector Pullers
- Designed to pull injectors on a GM Duramax 6.6L engines.
- 2001 - 2004, Similar to J-44639.
- 2005 - 2011, Similar to J-46594.
4509 Hose Pinch Off Pliers Set, 3 Piece
• Shuts off flow through vacuum lines, fuel lines, coolant lines, etc.
• Cocking ratchet mechanism holds pivoting jaws tightly in place. Heavy-duty swivel jaws pivot to assure parallel pinching.

4509-1 Replacement hose cutter blade.

4510 Straight-Blade Hose Cutter
• Cuts rubber hoses ranging from 1/4” to 1-1/2”.
• Simply place hose in tool and squeeze handle to cut.
• Replacement steel cutter blade No. 4509-1 is available.

4522 Vacuum Hose and Fuel Line Removal Tool
• Designed to remove vacuum hose or fuel lines (3/16” to 1/2”) from fittings or tubing. Simply place the black jaw on the fitting or tubing - the jaw will grip the material. Then use the silver jaw to push the vacuum hose or fuel line off the fitting or tube.

4523 Ear-type CV Boot Clamp Pliers
• Designed to crimp the ear-type CV boot clamps used on front-wheel drive vehicles.
• May also be used to crimp the type of clamps used on fuel and cooling system hoses.
• Ensures even, precise crimping, and eliminates possibility of damage to the clamp, boot, or hose.

4512 Heavy-Duty Tubing Cutter
• Works on tubing sizes 1/8” to 1-1/8” O.D. (3mm to 29mm).
• Easily cuts copper, brass, aluminum, and steel brake lines.
• Reamer folds onto cutter body for storage.
• Extra cutting wheel stored under reamer.

4514 Mini Tubing Cutter
• Works on tubing sizes 1/8” to 5/8” O.D. (3mm to 16mm).
• Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
• Extra cutting wheel stored in knob.

4515 3-in-1 180° Tubing Bender
• Capable of making 180° bends in copper, brass, aluminum, and steel tubing.
• Just one tool works on three sizes of tubing: 1/4”, 5/16” and 3/8”.

4411 Ratcheting Hose & PVC Cutter (Standard)
• Cuts hose and PVC up to 1-3/8” dia.
• Features metal frame and ergonomic handles for high leverage.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4412 Ratcheting Hose & PVC Cutter (Heavy Duty)
• Cuts hose and PVC up to 1-3/4” dia.
• Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4403 Tubing Bender
• For 3/16” and 1/4” dia. tubing.
• Can bend up to 180+ degrees.
• Quick release handle to easily remove tubing from bender.
• Sturdy steel construction.

4404 Tubing Bender
• For 5/16” and 3/8” dia. tubing.
• Can bend up to 180+ degrees.
• Quick release handle to easily remove tubing from bender.
• Sturdy steel construction.
**5911A Drain Plug PRO**
- The OTC 5911A magnetically attaches to pre-loosened oil pan drain plugs so you can remove them without dropping and avoid getting burned with hot oil.
- The patented design provides universal application to hex heads. A flexible shaft can be used in virtually any location and still turn the plug as desired.
- An added feature of the 5911A is a removable magnetic end with 1/4” square drive. When removed, the drain plug pro becomes a flexible-shaft 1/4” bit driver.
- Use for sockets and bit holders to get into hard-to-reach places including under dashboards and in engine bays to remove bolts once loosened. Designed for repetitive daily use with a Lifetime warranty.

**5961 HD Heavy-Duty Drain Plug™**
- For Agricultural, Commercial, and Heavy-Duty Vehicle Applications
- Remove fluid drain plugs without touching the plug or hot fluids!
- No touching hot plugs.
- No hot fluids on hands.
- Attach to pre-loosened drain plugs and rotate to remove.
- Magnetic attachment for internal 1/2” square drive drain plugs.
- Magnetic attachment for large drain plugs.

**8260 Hose Removal Set, 6 Piece**
- Consisting of six (6) hose removal tools which consists of three (3) 10”, soft-handled tools and three (3) 15”, soft-handled tools, each with a hard end-cap.
- They are made of heat-treated, chrome steel with assorted tip shapes.
- Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
- Hose removal tools can also be used on upper and lower radiator hoses, clips, washers, gaskets and other items.
- Packaged in a molded tray which can be placed in tool drawer.

**FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM**

---

**HOT OIL IN THE PAN, NOT ON YOUR HAND**
6784
Euro/GM Oil Socket Kit
Popular oil filter wrenches for the GM, BMW, Audi, and VW. High quality, 3/8" drive, forged sockets designed to last a lifetime.
3-piece oil socket kit contains:
• 27 mm socket for the Cadillac STS 3.2L V6 and the Mercedes-Benz 1.8L I4.
• 32 mm socket for the 2.2L GM Ecotec and Saabs.
• 36 mm for the BMW M52, M60, M62, M70, & M73 engines; M-B OM604, 605, & 606 engines; VW/Audi VR6 engine.

6901
GM Oil Filter Socket
• This is a required tool to remove the oil filter cap from the oil pan to access the filter cartridge.

6903
Ford / Mazda Oil Filter Socket—75.6 mm, 14 Flutes
• Designed at 75.6 mm to fit 2.3L 4-cylinder engines.

6904
Hyundai and Kia Oil Filter Socket—88.5 mm, 15 Flutes
• Works on newer Hyundai Sonata and Santa Fe 3.3L V6 engines.
• Works on newer Hyundai Azeria, Veracruz and Entourage 3.8L V6 engines.
• Works on newer Kia Amanti, Sedona and Sorrento 3.8L V6 engines.

6905
Oil Filter Socket
• Socket fits between the exhaust manifold and the oil filter for easy removal and installation of the filter.
• Fits 66.5mm oil filters with 14 flutes.

6906
Toyota Oil Filter Socket—65 mm, 14 Flutes
Avalon
• 2005–'07 V6 3.5L (2GR-FE), 1995–2004 V6 3.0L (1MZ-FE)
Camry
• 2007 V6 3.5L (2GR-FE), 2004–’06 V6 3.3L (3MZ-FE), 1994–2006 V6 3.0L (1MZ-FE)
Camry Solara
• 2004–’07 V6 3.3L (3MZ-FE)
Highlander
• 2004–’07 V6 3.3L (3MZ-FE) — also works on the hybrid version of this engine
• 2001–’03 V6 3.0L (1MZ-FE)
RAV4
• 2006–’07 V6 3.5L (2GR-FE)
Sienna
• 2007 V6 3.5L (2GR-FE)
• 2004–’06 V6 3.3L (3MZ-FE)
• 1998–2003 V6 3.0L (1MZ-FE)

6908
Toyota Tundra 4.7L Oil Filter Socket—73 mm, 14 Flutes

Similar to Kent-Moore No. J-29142.
4568 Three-Leg Oil Filter Wrench
- Fits filters ranging from 2-1/2" to 5-1/4" (65 mm to 135 mm) in diameter.
- Feature a 1-1/2" wide steel band that can stand up to the high torque needed to remove filters from trucks, tractors, and other heavy equipment.
- Use with a 1/2" drive ratchet or breaker bar.

4582 Jointed Jaw Standard Filter Pliers
- Jointed jaws rotate 180 degrees providing access where standard pliers do not.
- Jaw teeth and cushioned handles provide maximum gripping power for slip free operation.

4584 Jointed Jaw Large Filter Pliers
- Jointed jaws rotate 180 degrees providing access where standard pliers do not.
- Jaw teeth and cushioned handles provide maximum gripping power for slip free operation.

4440 Heavy-Duty 3 Leg Filter Wrench Standard
- Self gripping design for true universal fit from 3" to 4-3/4".
- Heavy duty knurled leg design for extra grip and strength.
- 1/2" square drive with 21mm hex option.

4441 Heavy-Duty 3 Leg Filter Wrench Large
- Self gripping design for true universal fit from 4" to 6 1/2".
- Heavy duty knurled leg design for extra grip and strength.
- 1/2" square drive.

4440 Adjustable Oil Filter Pliers Set (4560 and 4561)
- Forged jaws with sure-grip teeth grab the filter for easy removal.
- Slip-joint ratchet and lock mechanism allows a secure grip on filter diameters of 2-1/4" to 7" (57 mm to 178 mm).

4560 Heavy-Duty Oil Filter Wrench
- Fits filters ranging from 4-1/8" to 5-3/4" (105 mm to 145 mm) in diameter.
- Feature a 1-1/2" wide stainless steel band for positive grip on the filter, swivel handle makes it easy to turn filters in hard-to-reach areas.

4566 Swivel handle oil filter wrench. Fits filters ranging from 2-1/2" to 3-1/8" (64 mm to 80 mm) in diameter.

4567 Swivel handle oil filter wrench. Fits filters ranging from 3-3/4" to 4-3/8" (95 mm to 111 mm) in diameter.
7062A
Universal Filter Wrench
This filter wrench will stand up to the job of removing nearly any spin-on filter (up to 6”). Universal design permits use on most vehicles. The tough 2” wide nylon strap holds firmly. In fact, the more leverage applied, the tighter it grips.
- Accommodates a 3/8” drive ratchet.

6914
Davco Diesel Filter Wrenches
- Found on Caterpillar, Cummins, Detroit Diesel, International, Mack, Mercedes-Benz, Volvo and other engines.
- Durable steel construction.
- Precise, laser-cut angles.
- Opens vent cap also.
- Soft, ergonomic handle.

6915
Fits Davco Diesel filter models, 232-233-234.

6914
Fits Davco Fuel filters 382 & 384.

6703
Line Fluid Stopper Kit
Stop messy fluid leaks and prevent contamination during service.
- Kit seals all types of rubber and steel line found on fuel, brakes, AC, power steering and transmission system.
- Includes two banjo style fitting stoppers, two steel line stoppers, six line plugs, a line disconnect tool, and a long reach line pinch-off tool for hard-to-reach hoses.

6703-1
Banjo Line Fluid Stoppers, 2 pk.
6703-2
Steel Line Fluid Stoppers, 2 pk.
6703-3
Line Plug Fluid Stoppers, 6 pk.

6594
Ford Oil Line Disconnect Tool for 6.0 L
- Use to disconnect the high-pressure oil rail supply line from the fuel rail when removing fuel injectors.

6595
Ford High Pressure Oil Line Disconnect Tool
- Use to disconnect the high pressure oil line from the cylinder head.

4848
Flexible Spout Funnel
Many oil, transmission, and coolant fluid fill caps are located in hard to access areas. This aluminum 5 1/2” funnel features a removable debris screen in the base flowing to a 25” flexible spout designed to reach these difficult fill locations.
Fluid Evacuation / Brake Bleeding Tools

- Use to bleed brake systems and remove a variety of fluid from vehicles, such as antifreeze, oil, transmission fluid, gear lube, etc.
- Quick connect locking hose adapters and ball-style on/off valve on hose prevent fluid leakage.
- Equipped with a relief valve to prevent over-pressurizing the tank.

8100  Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm & 7 mm); 10-liter capacity tank.

8101  Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank.

Transfer Tankers
- Draining oil from a large displacement engine and getting it to your bulk storage container is a snap with OTC’s Transfer Tankers.
- Used oil is collected in a reservoir, and then rolls smoothly on 4” free-wheeling casters to your storage location.
- Pump moves five gallons a minute through the 8-foot transfer hose to the a 15-gallon reservoir.
- Handle is removable for easy storage.
- Screen attached to reservoir allows assembly to be stored on its side.
- Can also be used for transferring antifreeze.

5077A  Low profile Transfer Tanker is only 7-1/2” from floor to top of reservoir. Comes equipped with an electric pump (No. 528093).

5097  Low profile Transfer Tanker is only 7-1/2” from floor to top of reservoir. Comes equipped with a pneumatic pump (No. 529966).

1577

Low Profile Fluid Receiver
- Designed for receiving waste fluid during a wide range of repair jobs.
- Fluid capacity: 7.5 gallons.
- Constructed of polyethylene plastic for heavy-duty use—yet, only weighs 13 pounds.
- Low profile, only 5” high, it easily slides under passenger cars.
- Designed with four casters to provide efficient maneuverability.
- Suitable for cooling system repair jobs—can be used for antifreeze.
- Includes splash screen to prevents pillage and splashing.
- Two-year warranty.
1821
10-Ton Capacity, Air-operated Automotive Oil Filter Crusher
- Crushes up to four automotive filters (3-7/8” dia. x 9” high) at one time, in approximately 20 seconds. Engineered and built for dependable operation. Covered by OTC Lifetime Warranty®.
- 100% air operation eliminates electrical connections. Generous size of crushing chamber easily accommodates the largest automotive spin-on filters.
- Includes mounting stand. No wall mounting or time consuming installation required.

1877
25-Ton Capacity Heavy-Duty Oil Filter Crusher
- Handles the big filters (up to 6” dia. and 12-1/2” long) found in trucks, construction equipment, farm implements, etc. May also be used for automotive and light truck filters. It does it all!
- Crushes filters to 1/4 of original size, removing up to 95% of filter’s oil capacity. Automatic cycle feature: load the filter, push a button, and walk away.
- Air/hydraulic pump works on standard shop air (requires 9 CFM at 100 psi). Special valving returns ram automatically at the end of each cycle. No electrical connections needed.
- Built-in floor stand (completely assembled). Whole unit requires just 5 square feet of floor space.
- Covered by OTC Lifetime Warranty®.

1896
25-Ton Capacity High-Speed Heavy-Duty/Automotive Oil Filter Crusher
- Automotive and heavy-duty filters up to 15-1/4” long and 6” diameter are crushed in approximately 8 to 16 seconds. Filters are reduced to 20% of original size, with 95% of residual oil removed.
- Automatic cycle feature lets you load the filter, push a button, and walk away.
- Powered by 2 hp electric/hydraulic pump, 230 volt, 20 amp, 60 cycle, single phase, 3,450 rpm. Has a 2-gallon reservoir.
- Built-in, heavy-duty floor stand with leveling pads is designed to accept a 30-gallon drum for oil drainage. Comes assembled. Covered by OTC Lifetime Warranty®.

Oil Filter Crusher Comparison Chart

<table>
<thead>
<tr>
<th>No.</th>
<th>Tonnage</th>
<th>Pump</th>
<th>Crushing Time</th>
<th>% Oil Removed</th>
<th>Filter Size</th>
<th>Stand Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1821</td>
<td>10-ton</td>
<td>Air</td>
<td>20 Seconds</td>
<td>95%</td>
<td>Chamber: 8” x 8” x 9” H.</td>
<td>18-1/2” W x 24” D x 63-1/2” H</td>
</tr>
<tr>
<td>1877</td>
<td>25-ton</td>
<td>Air/Hyd.</td>
<td>80 Seconds</td>
<td>95%</td>
<td>6” Dia. - 12-1/2” Long</td>
<td>18-1/2” W x 30” D x 74-1/2” H</td>
</tr>
<tr>
<td>1896</td>
<td>25-ton</td>
<td>Elec./Hyd.</td>
<td>16 Seconds</td>
<td>95%</td>
<td>6” Dia. - 15-1/4” Long</td>
<td>27” W x 30” D x 78” H</td>
</tr>
</tbody>
</table>

Note: Crushing times are approximate; crushing times may vary depending on air pressure available, size of filter, type of filter, etc.

SEE PAGE 35 FOR OIL FILTER WRENCHES
7991
Cooling System Pressure Tester
Now you can pressure test the cooling system on most cars, light commercial trucks, motorcycles, and even marine applications. The tester’s universal fit eliminates the need for multiple adapters.
Note: Will not work on Saturn and Kia cars or Jeep with the plastic reservoir.

7991-2 O-ring repair kit
7991-3 Pump parts kit
7991-4 Gauge spare parts
7991-7 Main body repair kit

6977
Universal Cooling System Pressure Test Kit
A Cooling System Pressure Test Kit with a truly universal approach to testing vehicle cooling system pressure. The tester adapts to cooling system hoses from 1/4” to 5/8” in diameter. Find a coolant hose connection and insert the adapter to match hose diameter, couple the hand pump with integrated gauge to the adapter and you’re ready to test. When finished, relieve system pressure by slowly loosening the cap on the “degas” bottle. Eliminate the search for the right cap adapter and test cooling systems faster.
The hand pump features an easy to read integrated pressure gauge, a padded base to set against vehicle surfaces without scratching and a 36” integrated hosed with a quick-coupler mated to the adapters. The hose adapters use durable brass fittings and include a banded spring clamp for easy attachment. A radiator cap adapter with quick connect fitting is included for older vehicles. Every adapter includes a Schrader valve to prevent spray when disconnecting.
This Cooling System Pressure Test Kit covers virtually any make and model that enters your shop and is stored in convenient blow molded case. Covered by OTC’s Lifetime Warranty.

Product Features
• Hand Pump with integrated gauge
• Dedicated pressure hose with quick-connect
• Raised gauge to reduce chance of damage if tipped
• Padded base to prevent damage to painted vehicle surfaces
• 4 adapters (1/4”, 5/16”, 1/2” and 5/8”) with Schrader valves to prevent spray
• Includes a cap adapter
• Blow molded storage case
6976
**Cooling System Refilling Gun**
The 6976 Cooling System Refilling Gun can eliminate airlocks during cooling system refilling and eliminates the need for system bleeding. Small and large rubber cones suit both passenger and commercial vehicles with no additional adapters needed. Attach the Cooling System Refilling Gun to your shop air supply then insert the nozzle into the cooling system, like the opening on a radiator and establish vacuum. Insert hose into your new coolant reservoir and switch device to vacuum. It will pull air out of the coolant system while new coolant is added.

Avoid wasting time finding a pocket of trapped air that can cause cooling system failures and inaccurate sensor readings. Packaged in a convenient blow molded storage case. Covered by OTC’s Lifetime Warranty.

**Includes:**
- Refilling gun with integrated hose assembly
- Rubber adapter “stepped” for 1/2” to 1-1/2” diameter opening
- Rubber adapter “stepped” for 1” to 2” diameter opening
- Blow Molded Storage Case
- Operating Instructions

6978
**TestVac Vacuum Test Kit**
OTC 6978 Test-Vac Vacuum Test Kit allows fast, efficient testing and monitoring of many vacuum operated components and also allows one man brake bleeding. The new kit can help find vacuum leaks, test fuel, engine and exhaust valves, door locks, and heating/cooling system performance. Included in the kit are the vacuum pump, fluid container, transfer cap, hoses and fittings, packaged in a convenient blow molded storage case and covered by OTC’s Lifetime Warranty.

**Includes:**
- Vacuum pump with integrated vacuum gauge
- Fluid container with transfer cap
- 2 lengths of vacuum hose
- 12 assorted vacuum hose fittings
- 3 brake bleed fittings
- Instruction Manual
- Blow Molded Storage Case
COOLANT SERVICE

AUTOMOTIVE SPECIALTY TOOLS

4502 Hose Clamp Pliers Set (2 piece)
• Includes a cross-slotted jaw pliers and a wide, flat-band hose clamp pliers. Services most ring-type or flat-band hose clamps.
• The clamps are held open with a ratchet locking mechanism. Jaws swivel to access hose clamps in any position.

4496 Hose Clamp Pliers Set
• Contains five different styles of hose clamp pliers, which will service most flat-band and ring-style hose clamps. Also contains a hose removal tool.
Set Contains:
• Straight hose clamp pliers
• Hose removal tool
• Flat-type hose clamp pliers
• Offset hose clamp pliers
• 45° hose clamp pliers

4523 Offset Hose Clamp Pliers
• Head is offset from handle to allow access to hard-to-reach clamps.
• Swivel jaws allow pliers to be used on many different flat-band and ring-type hose clamps.

4523 Ear-type CV Boot Clamp Pliers
• Designed to crimp the ear-type CV boot clamps used on front-wheel drive vehicles.
• May also be used to crimp the type of clamps used on fuel and cooling system hoses.
• Ensures even, precise crimping, and eliminates possibility of damage to the clamp, boot, or hose.

4525 Flexible Hose Clamp Pliers
• Heavy-duty, 24” cable flexes to almost any position.
• Pliers have locking mechanism to hold clamp in the open position, making removal and installation of clamp easier.
• Allows technician to access the flat type hose clamps located in hard-to-reach areas.

4510 Hose Pinch Off Pliers Set, 3 Piece
• Shuts off flow through vacuum lines, fuel lines, coolant lines, etc.
• Cocking ratchet mechanism holds pivoting jaws tightly in place. Heavy-duty swivel jaws pivot to assure parallel pinching.

4524 45° Hose Clamp Pliers
• Jaws are bent at a 45° angle and pliers tips swivel to allow easy access to confined areas.
• Ratchet lock mechanism holds jaws open.
• Works on most flat-band hose clamps.

4597 Flexible Hose Clamp Pliers with Memory
• A heavy duty 24” cable flexes to almost any shape and holds it.
• Pliers have locking mechanism to hold clamp in the open position, making removal and installation of clamp easier.
• Allows technician to access the flat type hose clamps located in hard-to-reach areas.

4597 Flexible Hose Clamp Pliers with Memory
• Head is offset from handle to allow access to hard-to-reach clamps.
• Swivel jaws allow pliers to be used on many different flat-band and ring-type hose clamps.

4525 Flexible Hose Clamp Pliers
• Heavy-duty, 24” cable flexes to almost any position.
• Pliers have locking mechanism to hold clamp in the open position, making removal and installation of clamp easier.
• Allows technician to access the flat type hose clamps located in hard-to-reach areas.
COOLANT SERVICE
AUTOMOTIVE SPECIALTY TOOLS

4509
Straight-Blade Hose Cutter
• Cuts rubber hoses ranging from 1/4” to 1-1/2”.
• Simply place hose in tool and squeeze handle to cut.

4411
Ratcheting Hose & PVC Cutter (Standard)
• Cuts hose and PVC up to 1-3/8” dia.
• Features metal frame and ergonomic handles for high leverage.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4412
Ratcheting Hose & PVC Cutter (Heavy Duty)
• Cuts hose and PVC up to 1-3/4” dia.
• Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4522
Vacuum Hose and Fuel Line Removal Tool
• Designed to remove vacuum hose or fuel lines (1/16” to 1/2”) from fittings or tubing.
• Simply place the black jaw on the fitting or tubing – the jaw will grip the material. Then use the silver jaw to push the vacuum hose or fuel line off the fitting or tube.

4521
Hose Removal Tool
• Unique tip easily fits between hose and fitting to break stubborn hoses loose.
• Large handle provides a good grip on tool during hose removal.
• Works on radiator hoses, heater hoses, transmission lines – any place a rubber hose is clamped to a fitting.

8260
Hose Removal Set, 6 Piece
• Consisting of six (6) hose removal tools which consists of three (3) 10”, soft-handled tools and three (3) 15”, soft-handled tools, each with a hard end-cap.
• They are made of heat-treated, chrome steel with assorted tip shapes.
• Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
• Hose removal tools can also be used on upper and lower radiator hoses, clips, washers, gaskets and other items.
• Packaged in a molded tray which can be placed in tool drawer.

519157
GM Heater Line Quick Connect Separator
• When you need to get at and release the quick connect fitting that connects the heater hose to the engine block and thermostat housing, this little tool is great for saving time and aggravation.
• Works on 1991-current GM vehicles with 3.1L, 3.4L, and 3.8L engines.

519156
Ford and Chrysler Heater Hose Disconnect Tool Set
• Quickly and easily removes heater hose from heater core tube without damaging coupling retainer or hose.
• This set includes the heater hose disconnect tool for 5/8” and 3/4” heater hoses with quick connect couplings at heater core, and an extension handle for easier access.
• For use on 1986-current Aerostar vans and 1991-current full-size vans, 1987 to current Dodge Caravan and Plymouth Voyager vans.

4721
CV Boot Clamp Cutter
• Designed to easily cut the CV boot clamp without damaging the boot.
• Will cut boot clamps up to 10 mm wide and 7 mm thick.
• Handles are spring loaded to the open position to allow easy access to the clamp.
2300  Professional Lever Grease Gun  
- Heavy Duty Die Cast Aluminum Grease Gun Head.  
- Grease Gun Head Fitted with Automatic Air Bleeder.  
- Large Diameter Piston for working in cold.  
- Built-in variable stroke for greasing fittings with limited access.  
- Includes 6" Bent Steel Extension, Easy access 24" High Pressure Hose & 3 Jaw Slim Coupler.  
- 10,000 PSI.  
- For use with 14 oz. grease cartridge.

2304  Professional Pistol Grease Gun  
- Heavy Duty Die Cast Aluminum Grease Gun Head with integrated die cast Fixed Handle.  
- Grease Gun Head Fitted with Automatic Air Bleeder.  
- Large Diameter Piston for working in cold.  
- Built-in variable stroke for greasing fittings with limited access.  
- Includes 4" straight steel extension, easy access 24" High Pressure Grease Hose and 3 Jaw Slim Coupler.  
- 7500 PSI.  
- For use with 14 oz. grease cartridge.

2310  Air Operated Grease Gun - Continuous Flow  
- Heavy Duty Die Cast Aluminum Grease Gun Head.  
- Grease Gun Head Fitted with Automatic Air Bleeder.  
- Larger Pumping Chamber , honed for rapid operation.  
- Includes 6" Bent Steel Extension, Easy Access 24" High Pressure Grease Hose and 3 Jaw Slim Coupler.  
- 4800 PSI.  
- For use with 14 oz. grease cartridge.

2332  Quick Connect Greasing Accessory Kit  
- 7 piece Quick Connect Greasing Accessory Kit  
- Includes 1 each of the following Quick Connect Accessories:  
  1. Recessed Lube Adapter.  
  2. Angle Lube Adapter.  
  3. Narrow Needle Nose Adapter.  
  4. Seal Off Dispenser.  
  5. Right Angled Grease Coupler.  
  6. Heavy Duty Hose fitted with Spring Guard and Slim Coupler.  
  7. Grease Injector Needle 1.42" Long x 18G.

2326  24 inch Grease Gun Hose

2359  Suction Oil Gun  
- For use with gear oils to get them both into/out of gear boxes, transfer cases and differentials.  
- 16 oz capacity and 14" hose.
2423 Stainless Steel Tip Blow Gun
• OTC 2423 is designed for operating pressure of 50 PSI to 235 PSI and temperature range of 14° to 158°F
• When inlet pressure is 90 PSI, venting design prevents pressure exceeding 30 PSI if tip becomes blocked - conforming to OSHA Std 1-13.1
• When inlet pressure is 100 PSI, the noise level is held below 80 db conforming to OSHA Std 1910-95 (b), quieter than an electric drill
• 4-1/2” Stainless Steel Nozzle and Variable Speed Trigger for full control of amount of air dispensed
• Impact & Weather resistant materials and drop resistant construction
• Brass threaded air inlet

2424 PRO Series Safety Blow Gun (Standard Tip)
• Die Cast Aluminum body is non corroding and made to last in the harshest environments
• Ergonomic body design and dip coated operating lever reduce fatigue
• Exclusive venturi mechanism uses side ports to create higher volume of usable output
• Tamper-Proof design reduces output to safe levels if ports are blocked
• Meets OSHA standards for Safety and Noise

2340 Heavy Duty Grease Gun Holder
• Great Grease Gun Storage accessory.
• Can be mounted to walls, machinery, or heavy equipment.
• Design to retain your grease gun in high vibration environments.
• Works with all standard 14 oz. Grease Guns and 16 oz. Suction Guns.

2357 Transfer Pump
• Drain oil from crankcase or ATF through dipstick tube – from underhood – not undercar.
• Includes 24” x 1/2” dia discharge hose
• Includes 40” x 1/4” dia suction hose
• Pumps 3.2 oz per stroke.

2352 Lever Action Bucket Pump
• Fits 5 gallon pails.
• Includes 12” Drum cover.
• 3 Position Handle for different fluid viscosity.
• Steel Discharge Spout.
• Supplied with 5’ Hose.
• Up to 4.6 oz. / stroke.
• For use with transmission differentials and heavier oils.

SmartTech™ Technician Gloves
• Works with touchscreen technology.
• Washable synthetic leather palm with padding ensures comfort and a secure grip.
• Polyester and Lycra material around fingers offer a durable lightweight cover that stretches for a great fit.
• PVC cushions help protect knuckles from injury due to slippage.
• Comfortable polyester back panels include webbing for improved ventilation.

5801SGLV-L Large
5801SGLV-XL Extra large
QUICK FINDER INDEX
AUTOMOTIVE SPECIALTY TOOLS

TRANSMISSION
Transmission Fluid Fill/Extract ............................................. 46
Chrysler Dipstick ................................................................. 46
Clutch Tools ........................................................................ 46
Disconnect Tools .................................................................. 47 – 48
Tubing Cutters ..................................................................... 48
Pilot Bearing Pullers .............................................................. 49
Gear & Pulley Pullers ............................................................. 49
Mounting Fixtures ................................................................. 49

DRIVE AXLE
Axle Nut Sockets ................................................................. 50 – 51
Rear Axle Bearing Puller ...................................................... 52
Axle Seal Installer ................................................................. 52
Drive Axle Pullers, Seal Protector ......................................... 53
CV Joint Puller & Pliers .......................................................... 53
Differential Housing Spreader, Ball Hone Set ......................... 54
7445  
Chrysler Transmission Dipstick  
The OTC 7445 is for the Chrysler vehicles that didn't come with factory installed dipsticks. Fits Dodge Sprinter and Chrysler Crossfire transmissions, 2003 to current.

7446  
Chrysler Transmission Dipstick  
The OTC 7446 is for the Chrysler vehicles that didn't come with factory installed dipsticks. Fits Chrysler, Dodge, Jeep and Volkswagen with NAG1, 42RLE, CV Transmissions, and 62TE Transaxle.

6792  
Transmission Fluid Fill/Extract Kit with Adapters  
Designed for undercar transmission fluid service. The 6-liter sealed reservoir is used with shop air to extract or dispense transmission fluid with a simple control valve. A safety relief valve ensures safe operation. Includes a general universal adapter and storage case with 14 OE-style adapters with easy to read application information. Adapters cover most vehicles. All connections are simply press-on quick connects for ease of use. Pictorial operating instruction decals are on the reservoir - keeping important how to and safety information with the product.

6792-EDB  
Extraction Dispenser Bottle  
• Connect to shop air supply to extract or dispense fluids  
• Automatic pressure relief for safe operation  
• Switch between Dispensing and Extraction by simple turn of valve  
• Easy “Push On” quick connects, and Trigger lock for continuous flow  
• Includes universal flexible nozzle  

6792-TFA  
Transmission Fluid Adapters  
• 14 piece “OE style” ATF adapters  
• Vehicle application reference included  
• Convenient storage case

4528  
Clutch Alignment Tool Set (17 piece)  
• Essential for clutch installation on virtually all cars and light-duty trucks. Aligns clutch plate by using tapered cones and pilot adapters.  
• Includes five metric pilot adapters, 19mm, 17mm, 16mm, 14mm, 12mm, two clutch disc centering adapters, and one alignment shaft.  
• Housed in a blow-molded storage case.

7446A  
Clutch Coupling Tool  
• Disconnects the hydraulic clutch line from the clutch slave cylinder on the following vehicles:  
• Wedge-shaped design allows easy removal of clutch line without damaging clutch line, coupling, or slave cylinder. No need to pry the coupler apart.

6604  
Ford Transmission Fluid Fill Adapter  
• Use to fill or add fluid to the automatic transmission.  
• Works on the SR55W transmission in Ford trucks.

Similar to Ford 307-437

5610  
Transmission/Engine Oil Pressure Kit  
This professional kit can be used for domestic and import applications. High and low pressure gauges make this kit useful for both transmission and engine work. Kit comes complete with adapter for most applications. Designed to be used for both static and on road testing.

Features and benefits:  
• Large 3-1/2” gauges feature a chrome bezel and rugged protective outer boot.  
• Low pressure gauge reads 0–100 psi and 0–700 kPa.  
• High pressure gauge reads 0–400 psi and 0–2800 kPa.  
• Both gauges include rear hook to allow gauge to be hung conveniently out of the way.  
• Gauges and hose assembly incorporate quick couplers for easy disconnect.  
• Kit includes 13 adapters and a detailed instruction manual.

6604A  
Ford Transmission Fluid Fill Adapter  
• Use to fill or add fluid to the automatic transmission.  
• Works on the SR55W transmission in Ford trucks.

Similar to Ford 307-437

6604B  
Buick/Cadillac Automatic Transmission Fill Adapter  
• Use to fill or add fluid to the automatic transmission.  

6604C  
Chrysler Transmission Fill Adapter  
• Use to fill or add fluid to the automatic transmission.  

7024  
Automatic Transmission Clutch Spring Compressor  
• This is a handy, adjustable tool for removing or installing the snap ring on a transmission rear clutch piston. It applies pressure to the clutch drum's retaining washer to compress piston return springs.  
• For use on most American cars and light trucks.

7221  
Flywheel Holder  
• Holds flywheel in a locked position for servicing.  
• Fits GM 6.6L Duramax Diesel, 2001 to present.
6714
Input Shaft Seal Installer
Two-function seal installer. One end installs the input shaft seal into the main housing to the proper depth. The opposing end of the installer installs the side extension housing seal to the proper depth. Similar to DT-50839 & CH-50342.

6724
Trans Mainshaft Bearing and Gear Installer
Designed for use on 2014 and later Chevrolet Corvette 7-speed manual transmission. Kit contains tools to install mainshaft cone bearing, mainshaft rear support roller bearing inner race, countershaft rear bearing cone, and 3rd, 4th, 5th, 6th, 7th, and Reverse gears. Includes a tube installer with a supplied threaded rod assembly, a double end threaded adapter, and tube adapters. These tools prevent damage to components and are necessary as the transmission assembly cannot be mounted in a press or hammered into place. Similar to DT-51076 & DT-51076-10.

4508
Professional Style Seal Puller
• Designed to remove oil and grease seals when servicing cars, SUVs, and light trucks without damaging the housing or bearing.
• Hook tips in two sizes and professional handle design allows removal of hard-to-get-at seals by getting under them.
• The tool is 12’ long and the hook tip is double-secured (versus competitors’ designs), for durability.
• An extra blade is included, and additional replacements (No. 4508-1) may be ordered.

519156
Ford and Chrysler Heater Hose Disconnect Tool Set
• Quickly and easily removes heater hose from heater core tube without damaging coupling retainer or hose.
• This set includes the heater hose disconnect tool for 5/8” and 3/4” heater hoses with quick connect couplings at heater core, and an extension handle for easier access.

519157
GM Heater Line Quick Connect Separator
• When you need to get at and release the quick connect fitting that connects the heater hose to the engine block and thermostat housing, this little tool is great for saving time and aggravation.
• Works on 1991–current GM vehicles with 3.1L, 3.4L, and 3.8L engines.

7907
GM Hydraulic Clutch Line Disconnect Tool
• This is a versatile tool for disconnecting clutch lines when you’re working on clutch assemblies or slave and master cylinders. The bent end, intended for NVG3500 and NV4500 manual transmissions, works on 1996 to 2012 full-size 2WD and 4WD trucks, Chevrolet S-10 Blazer, and pickups. The straight end is for 1993 to ’94 Chevrolet Lumina sedan, 1995 to 2000 Chevrolet Monte Carlo, 1993 to ’99 Buick Regal, 1998 to 2002 Olds Intrigue, 1993 to ’97 Olds Cutlass Supreme and Pontiac Grand Prix.

7937
GM Transmission Oil Cooler Line Disconnect Tool
• Specially designed to work in tight places. So simple to operate, you can do it with just one hand.
• After insertion into the quick-connect fitting on 1/2” dia. lines, a quarter turn of the tool quickly and easily releases the fitting on the transmission end of the transmission-to-radiator oil cooler line.
**AUTOMOTIVE SPECIALTY TOOLS**

**TRANSMISSION SERVICE**

**1/2” is similar to Ford 307-459. 3/8” is similar to Ford 307-441.**

**6593 Ford Transmission Cooler Line Disconnect Set**
- Tool snaps around cooler line and, when pushed into the fitting, releases the fitting.
- The cooler line can then be removed.
- 3/8” disconnect is used on 2003–newer Ford Explorers with the 5R55W transmission.
- 1/2” disconnect is used on 2003–newer Ford Super Duty trucks with the 4R100 transmission.

**6611 Transmission Line Disconnects**
- Used on 2001 to current Chevrolet Corvette with the 4L60E transmission, and 2003 to current Cadillac CTS with the 5L40E transmission.
- 6 per pack.

**6579 Transmission Disconnect (2 pack)**
- Designed to disconnect transmission lines on Ford Taurus/Explorer 2005 and newer.
- Similar to OE p/n 307-569.

**6517 Disconnect Tool Set**
- Designed for A/C lines, fuel lines, and transmission cooler lines.
- Contains 3/8”, 1/2”, 5/8”, and 3/4” spring lock disconnect tools for A/C lines on Ford cars and trucks, Chrysler and Jeep vehicles.
- Contains the 3/8” and 1/2” fuel line disconnect tool for Ford vehicles.
- Contains the 5/16” and 3/8” fuel line disconnect tools for GM and Chrysler vehicles.
- Contains the transmission oil cooler line disconnect tool used on many GM and Ford vehicles.

**6508 Full-Coverage Disconnect Tool Set**
- If you’re working on Chrysler, Ford, or General Motors vehicles, this set can make your job easier.

**519154 Ford Fuel Line Disconnect Tool Set**
- Here’s the best tool for easy, frustration-free fuel line separation. As you put the tool on the fuel line coupling, its fingers depress the retaining collar to release the fuel line, preventing component damage.
- Works on 1990 to 1995 Ford Ranger and Explorer models fitted with 4.0L, 6-cylinder engines.

**6703 Line Fluid Stopper Kit**
- Kit seals all types of rubber and steel line found on fuel, brakes, AC, power steering and transmission system.
- Includes two banjo style fitting stoppers, two steel line stoppers, six line plugs, a line disconnect tool, and a long reach line pinch-off tool for hard-to-reach hoses.
- 6703-1 Banjo Line Fluid Stoppers, 2 pk.
- 6703-2 Steel Line Fluid Stoppers, 2 pk.
- 6703-3 Line Plug Fluid Stoppers, 6 pk.

**6700 Fluid Evacuation / Brake Bleeding Tools**
- Use to bleed brake systems and remove a variety of fluid from vehicles, such as antifreeze, oil, transmission fluid, gear lube, etc.
- Quick connect locking hose adapters and ball-style on/off valve on hose prevent fluid leakage.
- Equipped with a relief valve to prevent over-pressurizing the tank.

**6100**
- Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm and 7 mm); 10-liter capacity tank.

**6101**
- Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank.

**4848 Flexible Spout Funnel**
- Many oil, transmission, and coolant fluid fill caps are located in hard to access areas. This aluminum 5 1/2”funnel features a removable debris screen in the base flowing to a 25” flexible spout designed to reach these difficult fill locations.

**6514 Mini Tubing Cutter**
- Works on tubing sizes 1/8” to 5/8” O.D. (3mm to 16mm).
- Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
- Extra cutting wheel stored in knob.

**6512 Heavy-Duty Tubing Cutter**
- Works on tubing sizes 1/8” to 1-1/8” O.D. (3mm to 29mm).
- Easily cuts copper, brass, aluminum, and steel brake lines.
- Reamer folds onto cutter body for storage.
- Extra cutting wheel stored under reamer.
### Pilot Bearing Pullers

- **Pilot Bearing Puller**
  - Use to pull a pilot bearing from the end of the crankshaft.
  - A restriction plate catches the bridge and prevents the jaws from spinning when force is engaged.
  - The "Tee Handle" design is easy-to-use and eliminates need for other tools.
  - Spread covers ranges of 1/2" to 1-1/2".
  - Reach has a min/max range of 3/16" to 1".

- **Pilot Bearing Puller Attachment**
  - Use to pull a pilot bearing from the end of the crankshaft.
  - Interchangeable jaws. One set of jaws covers a spread of 1/2" to 1-1/2". Other set of jaws covers a spread of 3/8" to 1-3/8". Both sets of jaws have a reach of 1".
  - Reach has a min/max range of 3/16" to 1".
  - Puller attaches to OTC and other slide hammers with 5/8"-18 thread.

- **Pilot Bearing Puller**
  - 7319
  - Capacity: 1/2" to 1-1/2". I.D. reach: 3/4".
  - Pilot bearing puller.
  - Designed to pull flywheel pilot bearings in close quarters where a slide hammer cannot be used.
  - Operates on many models with engine in chassis.

- **Pilot Bearing Puller**
  - 7318
  - Capacity: 1/2" to 1-1/2". I.D. reach: 3/4".
  - Pilot bearing puller. Capacity: 1/2" to 1-1/2". I.D. reach: 3/4".

### Adjustable Hook Spanner Wrench

- **Adjustable Hook Spanner Wrench**
  - A helpful device that enables you to securely hold and rotate small engines, transmissions, and other components while you're working on them.
  - This holding fixture will handle pieces weighing up to 250 lbs., and it offers 360° of rotation with positive stops at 90° increments.
  - Three sides of the mounted unit remain fully exposed.

### Gear and Pulley Pullers

- **Gear and Pulley Pullers**
  - These tools are perfect for removing timing gears, fan pulleys, harmonic balancers, and many other parts having tapped holes.
  - Each puller will spread from 1-1/2" to 4-1/4".
  - The puller blocks are 4-7/8" wide, tapped 5/8" – 18 UNF.
  - Both include two hex head cap screws, 3/8"-16 x 3" long.

### Bench-Mounted Holding Fixture

- **Bench-Mounted Holding Fixture**
  - Converts your OTC engine stand into a transmission service stand.
  - Kit replaces the adjustable arms of the stand to hold and position the transmission at workbench height for repair.
  - The transmission is held with thrust washers, and smaller bearings hidden in a shaft or housing.
  - Jaws require a minimum of 5/8" opening and can range up to a max of 1-1/2" diameter.
  - Min/Max reach is 1/8" to 1".
  - Works with both 5/8-18 as well as M18-1.5 threaded hammer shanks.

### Flywheel Holding Tool

- **Flywheel Holding Tool**
  - Holds the flywheel in place for servicing the balancer or flywheel bolts. Mounts in place of the starter and engages the flywheel ring gear teeth. Applications: 2013-14 Cadillac ATS, 2014 Cadillac CTS, 2013-14 Chevrolet Malibu, 2014 Chevrolet Impala & Buick Regal 2.0L, 2.5L engines.
**Drive Axle Service**

**Automotive Specialty Tools**

4543A Locknut Socket Set – 4WD (6 piece)
- Chrome vanadium steel sockets cover most SLV and light truck applications.
- Sockets have 1/2" square drive, allowing use of a torque wrench, ratchet, or breaker bar.
- Contents of set:

4543A-1 Toyota 4-lug locknut socket. Services high-torque locknuts on Toyota 4WD vehicles having free-wheel (lock out) hubs: 1995—newer Tacoma; 1996—newer T100 and 4Runner.

4543A-2 Ford 4-lug locknut socket for high-shear rotating nuts on 1985—newer F-250 and F-350 truck rear axles, and Dana 80 rear axles of Ford Super Duty trucks.

4543A-3 4-lug socket for removing and installing 4-slot front axle locknuts on 1986—newer F-Series 1/2-ton trucks, full-size Bronco with Dana 44 axle, 1984—92 Ford Ranger, and Bronco II with manual hubs. Also, Dodge trucks using Dana 44 axle with automatic hubs.


4543A-6 FWD front spindle puller. Removes front spindle to access needle bearing, when lubricating and aligning front wheels. 5/8"-18 fine thread permits use with OTC No. 1155 slide hammer. Fits spindle thread sizes 2"—16, 1-5/8"—16 and 38 mm–1.5. Applications: Full-size GM, Ford, Jeep, and international pickups with Dana front axles, plus Ranger and Bronco II.

4547A Axle Nut Socket Set – FWD (7 piece)
- Extra long, 1/2” drive chrome molybdenum sockets for heavy-duty use in removing/installing axle nuts.
- Use with a ratchet, breaker bar, or torque wrench.
- Contained in a blow-molded plastic storage case.
- Contents of set:

4547A-29 29 mm FWD axle nut socket.
4547A-30 30 mm FWD axle nut socket.
4547A-32 32 mm FWD axle nut socket.
4547A-34 34 mm FWD axle nut socket.
4547A-35 35 mm FWD axle nut socket.
4547A-36 36 mm FWD axle nut socket.
4547A-38 38 mm FWD axle nut socket.

4542 7-Piece Wheel Bearing Locknut Socket Set
- For use with 1/2” ratchet or breaker bar.
- Contents of set:

S19097-1 2-3/8” hex locknut socket works on 1984—92 Ford Rangers and Bronco IIIs with automatic locking hubs. Similar to Ford 205-140 (T70T-4252-B).

S19097-2 2-9/16” rounded hex locknut socket works on 1990—93 Dodge trucks with Dana 60 manual hubs.

S19097-3 2-1/2” hex locknut socket fits the hex nut found on rear axles and various front axle applications on light-duty trucks.


S19097-5 2-1/2” rounded hex locknut socket works on 1995—96 Ford F-150 trucks and full-size Broncos with automatic locking hubs. Similar to Ford 205-348 (T95T-1197-A).

S19097-6 2-3/8” rounded hex locknut socket works on 1990—newer Ford Rangers, Bronco II, and Explorers with automatic locking hubs.

S19097-7 55 mm hex locknut socket designed for use on front wheel adjusting nuts found on Toyota models FJ, LN, and RN.

Similar to Ford 205-039 (T70T-4252-B)

1902 Locknut Socket - Ford
Drive 3/4” (6 pt.) 2-3/8” Hex
- This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
- For manual use only, impact wrench voids warranty.

Similar to Ford 205-043 (T70T-4252-W)

Fits special “rounded” hex nut found on Dana axles of some Ford trucks. Depth of locknut sockets is 5”.

1928 Locknut Socket - Ford, Dodge
Drive 3/4” (6 pt.) 2-9/16” Hex
- This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
- Services 1990—93 Dodge truck with Dana 60 manual hubs. 3/4” sq. drive.
- For manual use only, impact wrench voids warranty.

Fits special “rounded” hex nut found on Dana axles of some Ford trucks. Depth of locknut sockets is 5”.

1936 Locknut Socket - Ford
Drive 3/4” (6 pt.) 2-3/8” Hex
- This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
- Services 1990—newer Ford Ranger, Bronco II, and Explorer with automatic hubs.
- For manual use only, impact wrench voids warranty.

7269 Locknut Socket Ford, GM
Services 1985—newer Ford F-series 3/4- and 1-ton trucks with Dana 80 rear axle.
- 1/2” sq. drive.
- Similar to Ford 205-282 (T88T-4252-A)Kent Moore J-42855

6601 Locknut Socket - Ford
- 1/2” sq. drive.
- Similar to Ford 205-448 2-3/4” O.D.
7698 Locknut Socket Isuzu, Honda, Jeep
• 1/2” sq. drive.

7795 Locknut Socket Ford
• 1/2” sq. drive.
Similar to Ford 205-349 (T95T-1197-A)

7796 Locknut Socket Ford
• 1/2” sq. drive.
Similar to Ford 205-349 (T95T-1197-B)

2.366 center to center on pins

6612, 6921
6796, 6928

6612 54 mm hex locknut socket designed for use on front wheel adjusting nuts found on Toyota FJ, LN, and RN models.

6921 2-1/2” hex locknut socket fits hex nut found on rear axles and various front axle applications on light-duty trucks.


6928 2-9/16” rounded hex locknut socket Works on 1990–93 Dodge trucks with Dana 60 manual hubs.

7217 Axle Nut Socket
• Designed to fit the axle nut on Chevy Topkick/Kodiak, 2003–Newer.
• Similar to J-44275.

7218 Axle Hub Nut Socket
• Removes installs the axle hub bearing retaining nut.
• Fits GM 11-1/2” rear axle found on 2011 and newer trucks.
• 9 Pin socket, 1/2” drive.
• Similar to CH-50636.
Differential Bearing Preload Wrench

Differential Bearing Pullers

Slide Hammer Rear Axle Puller

Rear Axle Bearing Puller Set

The tools you need for flange-type rear axle and bearing removal on most late model passenger cars and light trucks. The axle bearing pullers, used with the slide hammer, make short work of removing semi-floating rear axle bearings. Consists of:

- **7374** Rear axle pulling plate with 5 lb. slide hammer.
- **7495A** Rear axle bearing puller. Fits min. bearing tube I.D. of 1" and max. axle tube I.D. of 1-7/8".
- **7496A** Rear axle bearing puller. Fits min. bearing tube I.D. of 15/16" and max. axle tube I.D. of 2-3/8".
- **7497A** Rear axle bearing puller. Fits min. bearing tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".
- **27315** Puller hook for use with the 5 lb. slide hammer. Removes oil seals, bearings, etc.

7248 C-Frame Press

The C-Frame used in conjunction with OTC Ball Joint Adapters. Can also be used for removing/installing, universal joints with needle bearings, pressed in wheel studs, and brake anchor pins on heavy-duty vehicles. Suitable for general pressing operations.

7917 Live Center Forcing Screw Plug

This plug replaces the existing forcing screw on the No. 7248 C-frame to allow its use on heavy-duty ball joints. The shorter length gives the C-frame a wider opening to accommodate the larger ball joints on 3/4- and 1-ton trucks.

6935 U-Joint Service Adapter

For use with the 7248 C-Frame to service the u-joints found on Dana 60 4WD front drive axles.

Application Examples:
- 1977-1991 Chevrolet and GMC 1 Ton
- 1975-2010 Dodge 3/4 and 1 Ton
- 2000-2002 Ford Excursion
- 1999-2010 F250
- 1998-2010 F350
- 1999-2004 F550

6944 Axle Seal Installer

- Designed to install the axle seal on GM Trucks with 10-1/2" ring gear.
- Similar to J-24428-A.

7792 Rear Axle Service Set

The tools you need for flange-type rear axle and bearing removal on most late model passenger cars and light trucks. The axle bearing pullers, used with the slide hammer, make short work of removing semi-floating rear axle bearings. Consists of:

- **7374** Rear axle pulling plate with 5 lb. slide hammer.
- **7495A** Rear axle bearing puller. Fits min. bearing tube I.D. of 1" and max. axle tube I.D. of 1-7/8".
- **7496A** Rear axle bearing puller. Fits min. bearing tube I.D. of 15/16" and max. axle tube I.D. of 2-3/8".
- **7497A** Rear axle bearing puller. Fits min. bearing tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".
- **27315** Puller hook for use with the 5 lb. slide hammer. Removes oil seals, bearings, etc.

6400 Rear Axle Bearing Puller Set

Set contains slide hammer and popular attachments needed for servicing flange-type, floating rear axle bearings and seals in most late model, rear-wheel drive cars and light trucks; comes in a molded case.

- **Rear axle bearing puller** fits min. bearing tube I.D. of 1" and max. axle tube I.D. of 1-7/8".
- **Rear axle bearing puller** fits min. bearing tube I.D. of 1-5/16" and max. axle tube I.D. of 2-3/8".
- **Rear axle bearing puller** fits min. tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".
- **Slide hammer tee bar, slide hammer 5 lb. weight, pulling hook, rear axle pulling plate, bearing cup remover.**

6504 Differential Bearing Puller

For removing differential side carrier bearings on a wide variety of passenger cars and light trucks. Use with step plate adapter Nos. 8060, 8061, 8063, and 8064. (Step plate adapters are not included with 1028 or 1031. See page 125.)

- **1028** Puller with a 3-1/2" maximum reach, 1-1/4" to 4-1/2" spread. Primarily for servicing Ford products.
- **1031** Puller with a 3-1/4" maximum reach, 6" maximum spread. For servicing most General Motors, American Motors, and Chrysler products.

6602 Differential Bearing Preload Wrench

- **Use to adjust differential bearing free play on Chrysler/Dodge vehicles with 7-1/4", 8-1/4", 8-3/4", and 9-1/4" rear axles.**
- **Tool fits inside axle tube to access the threaded adjusters.**
4520
Differential Side Bearing Pullers
- Use to remove differential side carrier bearing. Works on a wide variety of cars and light-duty trucks.
- Includes four step plate adapters to fit carrier bearings.
- Reach: 1-5/8”. Spread: 2-5/8” to 3-3/8”. Forcing screw is 3/4"-16 x 6-11/16" lg.
- Set includes:
  4520-1 Forcing Screw / Cross Block Assembly
  4520-2 Puller Jaws / Pins (set of two each)
  4520-3 Puller Jaws Retaining Yoke
  4520-4 Step Plate Adapters (set of four)
    15/16” – 1-11/32” diameter,
    1-1/8” – 1-1/2” diameter
    1-1/4” – 1-5/8” diameter,
    1-1/8” – 1-3/4” diameter

Specifications
Reach: 1-5/8”
Spread: 2-5/8” on inside holes in crossbar
3-3/8” on outside holes in crossbar
Forcing screw: 3/4”-16 x 6-11/16” lg.
Adapter sizes: 15/16” to 1-3/4” diameter

4508
Professional Style Seal Puller
- Designed to remove oil and grease seals when servicing cars, SUVS, and light trucks without damaging the housing or bearing.
- Hook tips in two sizes and professional handle design allows removal of hard-to-get-at seals by getting under them.
- The tool is 12” long and the hook tip is double-secured (versus competitors’ designs), for durability.
- An extra blade is included, and additional replacements (No. 4508-1) may be ordered.

4508-1 Replacement blade for 4508

7140
Ford Half-Shaft Remover/Differential Rotator
No. 7140 is essential when removing the left-hand half-shaft from Escort/Lynx transaxles. It ensures correct removal and allows the technician to turn the differential.

4522
Large Gear and Pulley Puller
Using this tool, you can easily remove a wide range of gears, pulleys, or other parts that have tapped holes.
- The puller will spread from 2” to 7-3/4”. Its block is 8-1/4” wide, and its forcing screw is 3/4”-16 x 11-5/8” long.
- Accommodates any cap screws up to 1/2” diameter.

7392 7393
Gear and Pulley Pullers
These tools are perfect for removing timing gears, fan pulleys, harmonic balancers, and many other parts having tapped holes.
- Each puller will spread from 1-1/2” to 4-1/4”. The puller blocks are 4-7/8” wide.
- Both include two hex head cap screws, 3/8”-16 x 3” long.

7508
Axle Seal Protector
Protects seal from being cut or nicked, both of which can cause immediate or eventual leaks. Similar to J-44394-A.
Applications: 2011 and later drive axles on most GM vehicles.

7509
Seal Protector
Protects the transfer case Intermediate Drive Shaft (IDS) seal from the splines of the IDS during shaft removal or installation. Similar to DT-50937. Applications: 2013-Later Chevrolet Trax, Buick Encore.

7507
Inner Pinion Bearing Race Installer
DRIVE AXLE SERVICE
AUTOMOTIVE SPECIALTY TOOLS

4722 Heavy-Duty CV Boot Clamp Installer
- Designed to clamp the ear-type CV boot clamps used on front-wheel drive vehicles.
- May also be used to clamp the clamps used on fuel and cooling system hoses.
- Ensures even, precise clamping, and eliminates possibility of damage to the clamp, boot, or hose.

4723 Ear-type CV Boot Clamp Pliers
- Designed to clamp the ear-type CV boot clamps used on front-wheel drive vehicles.
- May also be used to clamp the clamps used on fuel and cooling system hoses.
- Ensures even, precise clamping, and eliminates possibility of damage to the clamp, boot, or hose.

4623 CV Joint Banding Tool and Cutter
- Use to install and tighten the “band-it” or strap style clamps on CV joint boots, or on power steering rack and pinion steering gear boots.
- Once installed into the tool, tighten the band by turning the handle on the tool, use a socket or wrench on the handle to torque the band to OE specifications.
- When the boot clamp has been tightened to specs, cut the band to the correct length by flipping the lever (at the front of the tool) forward.

4724 CV Boot Clamp Pliers
- Special tips work on the ear-less type CV boot clamps.
- Grips clamp in many positions to tighten clamp around boot.

7011 Ball Hone Set, 10 piece
- Ball Hones can be used for refinishing and resizing bores such as found in brake calipers, engine lifters, and u-joint yokes. Also useful for any bearing or bushing application.
- All hones are 180 grit Silicone Carbide for excellent cutting and finish.

Fluid Evacuation / Brake Bleeding Tools
- Use to bleed brake systems and remove a variety of fluid from vehicles, such as antifreeze, oil, transmission fluid, gear lube, etc.
- Quick connect locking hose adapters and ball-style on/off valve on hose prevent fluid leakage.
- Equipped with a relief valve to prevent over-pressurizing the tank.

8100 Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm and 7 mm); 10-liter capacity tank.

8101 Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank.

4295 Wheel Stud Service Kit
- Works on most hubs for installation/removal.
  - All sizes of studs.
  - Installation done by pushing on the head, eliminating the need for threaded adapters.
  - Reduces number of adapters required
  - Reduces damage to studs
  - Increases ease of use
- Remove and install 10 studs in only 10-15 minutes (compared to 20-30 minutes for more expensive competitive products).
- Can be powered with an impact wrench, no hydraulic power source required.
- No need to remove hub from vehicle.
- Reduces risk of damage to hubs, studs, and bearings when using tool.
- Weighs only 12 lbs., assembled to remove studs and 14 lbs, assembled to install studs.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>7011-1</td>
<td>.375”</td>
</tr>
<tr>
<td>7011-2</td>
<td>.500”</td>
</tr>
<tr>
<td>7011-3</td>
<td>.625”</td>
</tr>
<tr>
<td>7011-4</td>
<td>.750”</td>
</tr>
<tr>
<td>7011-5</td>
<td>.875”</td>
</tr>
<tr>
<td>7011-6</td>
<td>1.00”</td>
</tr>
<tr>
<td>7011-8</td>
<td>1.25”</td>
</tr>
<tr>
<td>7011-10</td>
<td>1.50”</td>
</tr>
<tr>
<td>7011-12</td>
<td>1.75”</td>
</tr>
<tr>
<td>7011-14</td>
<td>2.00”</td>
</tr>
</tbody>
</table>

4720 Boot Clamp Pliers – Chrysler
- Required tool for correct installation of strap-and-buckle style CV boot clamps.
- Works on A.C.I. and G.K.N. boots found on various Chrysler, Plymouth, and Dodge front-wheel drive vehicles.
- Prevents damage to CV boot and clamp during installation.

7011 Ball Hone Set, 10 piece
- Ball Hones can be used for refinishing and resizing bores such as found in brake calipers, engine lifters, and u-joint yokes. Also useful for any bearing or bushing application.
- All hones are 180 grit Silicone Carbide for excellent cutting and finish.
STEERING
Pitman Arm Pullers ........................................ 56 – 57
Separator Tools ............................................. 57
Pickle Forks .................................................. 57
Inner Tie Rod Tools ........................................ 58
Power Steering Pumps .................................... 59
Steering Wheel Pullers .................................... 60
Flange-Type Pullers ........................................ 60

SUSPENSION
Strut Compressor .......................................... 61
Ball Joint Tools ............................................. 62 – 64
Ball Joint Separators ....................................... 64
Torsion Bars .................................................. 65
Alignment Tools ........................................... 65 – 66
Strut Tools .................................................... 67

HUB
Hub Grappler™ ............................................. 68
Hub Pullers ................................................... 69
Hub Resurfacing Kit ....................................... 70
Slide Hammer Puller Sets ............................... 70 – 71
Locknut Sockets ............................................ 71 – 72
6295  
**Front End Service Set**
Kit includes five popular tools used for servicing Pitman arms, ball joints, and tie rods on most vehicles.
Set includes:
- 7314A – Pitman arm puller.
- 7315A – Tie rod end remover.
- 7503 – Outer tie rod remover/ball joint separator.
- 6296 – Pitman arm/tie rod end puller.
- 6297 – Ball joint separator.

6296  
**Pitman Arm/Tie Rod End Puller**
The versatile design allows this tool to be used as a Pitman arm remover for many small, domestic rear wheel drive vehicles, or as a tie rod end puller for many domestic and import vehicles. The jaws, with a spread of 1", give a positive grip in tight work places.

6297  
**Ball Joint Separator**
This tool is used to separate the ball joint from the spindle support arm. It works on many domestic and import front wheel drive vehicles, and is adjustable up to 2" for different size ball joints.

6496  
**Pitman Arm Puller**
*Cut Removal Time from 3 1/2 Hours to 40 Minutes*
- Labor intensive removal of steering sector not necessary.
- Compact design allows easy access to the Pitman arm.
- Works on most domestic SUVs and pickups.
- Live center on forcing screw and use of a standard wrench results in less effort required.
- Tool is forged steel for durability and long life.

6497  
**Super-Duty Pitman Arm Puller**
- Allows the Pitman arm to be removed from the steering gear while the steering gear is still in the vehicle.
- Two clamp bolts lock the jaws on the Pitman arm, ensuring a solid grip.
- Maximum jaw spread is 3-1/4".

<table>
<thead>
<tr>
<th>Works on the following four-wheel-drive vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 – 2003</td>
</tr>
<tr>
<td>1997 – 2004</td>
</tr>
<tr>
<td>1991 – 2004</td>
</tr>
<tr>
<td>1992 – 2011</td>
</tr>
<tr>
<td>1988 – 2011</td>
</tr>
<tr>
<td>1995 – 2011</td>
</tr>
</tbody>
</table>

7314A  
**Pitman Arm Puller**
This puller will handle nearly any Pitman arm job on passenger cars and light trucks. It features special forged jaws shaped to fit the job, ensuring a positive grip every time. Spread between jaw tips: 1-5/16".

7315A  
**Tie Rod End Remover**
Redesigned to use on imports and many front wheel drive vehicles, including SUVs with rack and pinion steering. Live center tip on forcing screw swivels to align tool to tie rod stud to ease in removal and prevent damage to stud. Similar to Ford 211-001 (TOOL-3290-D)

7310A  
**Pitman arm puller for medium- and heavy-duty trucks.**
Max jaw spread: 2-1/4”.

7311A  
**Similar to Ford No. 211-003(T64P-3590-F)**

7503  
**Outer Tie Rod Remover/Ball Joint Separator**
This tool is a must when you're servicing outer tie rods and ball joints. It works on imported and domestic models, front or rear wheel drive, cast or stamped-steel steering knuckles.
- Handles up to 5 tons of force.
- Jaws spread to 3" and has a 4" reach.
- Jaws, once tightened, won't slip on the knuckle.

7311A  
**Pitman Arm Puller for cars and light trucks to 2/4 ton. Max jaw spread: 2-1/8"**
8149
Pitman Arm Puller
The 8149 conical tool is designed to fit Pitman arms on compact and intermediate cars.
• Conical design gives increased strength, stability, and fits securely on a Pitman arm.
• Spread is 1-1/4” with a reach of 2-1/4”.
• 3/4-16 x 4-3/4” forcing screw provides enough power to remove stubborn Pitman arms.

8150
Pitman Arm Puller
The No. 8150 conical tool is designed to fit Pitman arms on domestic cars and light-duty trucks.
• Conical design gives increased strength, stability, and fits securely on a Pitman arm.
• Spread is 1-1/2” with a reach of 2-1/2”.
• 3/4-16 x 4-3/4” forcing screw provides enough power to remove stubborn Pitman arms.

6531
Pitman Arm Separator
Separating Pitman arms on cars and light trucks is quick and easy with this wedge and an appropriate sized hammer.
• 11” long and has a 1-1/8” fork spread.

6532
GM Pitman Arm Remover
Removes Pitman arms on pickups and sport utility vehicles. The wedge end is placed between the Pitman arm and steering gear box, and with just a few hammer blows, it separates them. Works on 1988 and newer Chevrolet and GMC 1/2- and 3/4-ton 4WD pickups, Suburban, Tahoe, and Yukon.
• 11-3/4” long with a 1-5/8” fork spread.

6533
Separator Tool
This handy tool is multipurpose. It will remove camber adjustment sleeves on 1980-86 F-150 & F-250 and 1982-88 Bronco II & Ranger Ford pickups that have an adjustable camber. It’s also a separating tool for tie rods on medium- and heavy-duty trucks. And it works as a Pitman arm wedge on light trucks.
• 11-5/8” long with a 1-7/16” fork spread.

6534
Shock Link and Tie Rod Separator
Here’s a tool that will convince even the most stubborn shock links and tie rods to part company. Just insert the tapered wedge between the seized parts, and smack the other end with a hammer.
• 16” long with 11/16” fork spread.

6535
Ball Joint Separator
Ball joint service is easier with this tool. It was designed to remove ball joints from spindle support arms, and can be used on a wide variety of vehicles, from compact cars to light-duty trucks.
• 16” long and has a 15/16” fork spread.

6299
Separator Set (5 piece)
• Features five popular “pickle forks” in a blow-molded case.
• Use to remove shock linkage, tie rods, and ball joints. Also for general service on many cars and light trucks.
Includes:
6531 – Size 11” x 1-1/8” Fork Spread.
6532 – Size 11-3/4” x 1-5/8” Fork Spread.
6533 – Size 11-5/8” x 1-7/16” Fork Spread.
6534 – Size 16” x 11/16” Fork Spread.
6535 – Size 16” x 15/16” Fork Spread.

4559
Manual / Pneumatic Pickle Fork Set
• Use to separate ball joints, tie rods, and Pitman arms.
• Set contains two handles: knurled handle allows use of a hammer; smooth handle fits in a pneumatic hammer.
• Three sizes of pickle forks included: 1-1/8”, 15/16”, and 11/16”.
Set contains:
4559-1 Fork heads (set of three: 11/16”, 15/16”, and 1-1/8”).
4559-2 Handles (set of two: knurled handle for use with a hammer; smooth handle for use with an air hammer).

SEE PAGE 43 FOR GREASE GUNS
5068 Truck Tie Rod Socket
Designed to withstand the force of a 3/4" drive impact wrench, this rugged socket makes truck tie-rod end removal quick and simple.
- Works on inner and outer tie rod ends on 12,000 to 16,000 lb. truck axles.
- Socket I.D. 2-3/4"

6275 Tie Rod/Pitman Arm Adjusting Set
These tools have a unique design that permits 360° rotation of the adjusting sleeve, even where space is limited.
- Accommodates 1/2" drive ratchet or breaker bar.
- Set consists of the following tools in a blow-molded case:
  7095 For compact cars with 3/4" diameter adjusting sleeves.
  7096 For full size cars with 7/8" diameter adjusting sleeves.
  7097 For light trucks with 1-1/8" diameter adjusting sleeves.
  6274 For Ford 3/4-ton and 1-ton trucks with 1-1/3" diameter adjusting sleeves.
  6084 Pitman arm adjusting tool for Ford F-250 thru F-450 trucks with 1-7/16" dia. adjusting sleeves.

6085 Tie Rod Socket for Medium-Duty Trucks
Here's a heavy-duty tool for removing tie rod ends on Chrysler, Ford, and GM 1-ton trucks. It also works on many medium-duty trucks, Class 2 through 6.
- Accommodates a 1/2" drive impact wrench.

7771A Ford Power Steering Pump Pulley Installer
- 8 mm x 1.25" threads fit Ford’s C111 pump.

7595A Inner Tie Rod Removal Set
Remove and install inner tie rods without removing steering gear. The adapters fit into the tie rod socket, and a 1/2" drive ratchet or breaker bar fits the drive end.
- Services both old and new style inner tie rods.
- For use on most Chrysler, Ford, and GM vehicles.
- The socket is 16" long and is “stepped” to accept 1-3/16" tie rods and 1-5/16" tie rods.
- Adapters fit into socket and work on 1-3/16", 1-5/16", and 1-7/16" tie rods.
Important: When removing and installing inner tie rods, hold steering rack shaft to prevent damage to pinion gear.
7220  
**Power Steering Bleeder Adapter**  
- Allows for air to be bled out of power steering systems.  
- Used in conjunction with the vacuum hand pump or brake bleeder.  
- Fits GM and other makes power steering reservoirs.  
- Similar to J-43485.

7209  
**GM Power Steering Pump Pulley Installer**  

7185  
**Power Steering Pump/Alternator Pulley Remover**  
This puller removes pulleys on most Chrysler, Ford, GM, and VW vehicles fitted with Saginaw, Thompson, or Ford’s C2 and C111 power steering pumps; GM belt-driven vacuum pumps on cars, and press-on water pump pulleys on GM 4- and 6-cylinder engines. It works on pulleys with hub diameters of 1-1/8", 1-1/4", 1-5/16", and 1-3/8".  
- Designed to ensure damage-free removal.

7830A  
**Power Steering Pump Pulley Kit**  
- Also includes No. 7931 spacer for work on Chrysler Cirrus, Dodge Stratus, and Plymouth Breeze.

7889  
**Steering Pivot Pin Remover**  
Tilt steering columns are much easier to service when your tool box has one of these pivot pin removers in it. Works on GM, Chrysler, and Ford vehicles with Saginaw tilt steering columns.

4529  
**Power Steering Pump Pulley Service Set**  
- A complete set of tools required to remove and install power steering pump pulleys of most domestic vehicles.  
- Fits pulley hubs with diameters of 1-1/8", 1-1/4", 1-5/16" and 1-3/8".  
- Includes the necessary adapters for servicing: GM 3.1L, 3100, 3400, and 3800 V6 engines, GM 2.3L Quad 4 four-cylinder engines, and Ford 4.6L and 5.4L V8, 6.8 V10 engines.

7122R  
**Ford Lock Pin Remover**  
Removes tie rod inner socket retaining pin on Ford vehicles with rack and pinion power steering. Replacement tips available separately.

Similar to Ford 211-009(T65P-3A733-C)

4530  
**Steering Service**  
- Power Steering Service Tools

7005  
**Power Steering Pump Pulley Installer**  
This is an ideal companion to our No. 7185 pulley remover. It’s a real time saver for installing power steering pump pulleys and GM press-on water pump pulleys.  
- Designed to ensure damage-free installation.  
- Internal roller bearing allows for easy turning.  
- Threads are 3/8”–16 to match pulley shafts.

Similar to Ford 211-016(T69L-10300-B)

37907  
**Tip for 7122R**  
Similar to Ford 211-D002
7984
**Master Steering Wheel Service Set**
- This master set is used for steering column service on most cars and light trucks, domestic and imports.
- This set includes components for steering wheel, lock plate removal, and pivot pin removal.
- Special 5/16-18 x 4” shoulder bolts allow removal of GM steering wheels without damaging the SIR module. Also use the 5/16-18 x 4” shoulder bolt for earlier models without SIR module.
- This set includes a lock plate compressor with M14 x 1.5 and 9/16-18 forcing screws for steering column shafts on GM S.I.R., as well as older GM, AMC, and Chrysler vehicles with tilt, telescoping, and conventional steering columns. Use on steering columns with or without air bag.
- Includes a screw to contain the telescopic steering column on older GM vehicles.
- The pivot pin remover covers tilt steering pivot pins on 1969 and newer GM, Ford, and Chrysler vehicles with Saginaw steering columns.
- Two hook-shaped puller legs and special forcing screw adapter remove the steering wheels without tapped pulling holes.
    - This set includes three each of the following hardened bolts:
      - Washer Head Bolts (Grade 8) 1/4-28 UNF x 3”
      - Hex Head Flange Bolts 3/8-16 UNC x 3.5”
      - Hex Head Flange Bolts 5/16-24 UNF x 3.5”
      - Hex Head Flange Shoulder Bolts 5/16-18 UNC x 4”
      - Hex Head Flange Bolts M8 x 1.25 x 90mm

7790
**Flange-Type Puller Set (Grade 5)**
- Versatile puller capable of removing a wide variety of components having tapped pulling holes, including harmonic balancers, gears, crankshaft pulleys, etc.
- Capable of handling 2- or 3-way bolt pulling applications.
- Works on many cars, pickups, SUVs, and small engines.
- Carries the OTC Lifetime Warranty® against defects in workmanship and material.
- Contents of set:
  - Puller flange: adapts to bolt circle dia. of 1-1/2” to 4-5/8”.
  - Shaft protector: 1-3/16” dia. x 3/4” thick.
  - Three each of the following flat washers: 1/4”; 5/16”, 3/8”.
  - Three each of the following bolt sizes:
    - 1/4”-28 x 3” lg.
    - 5/16”-24 x 3” lg.
    - 5/16”-18 x 3-1/2” lg.
    - 5/16”-18 x 6” lg.
    - 3/8”-24 x 1-1/2” lg.
    - M8 x 1.25 x 90 mm lg.
    - M10 x 1.5 x 35 mm lg.

7927A
**Steering Wheel Remover/Lock Plate Compressor Set**
With this set, it’s easy to remove the steering wheels of most domestic and imported vehicles, with or without tilt steering columns. Also accesses the turn signal switch and SIR modules on current GM vehicles.
- Includes No. 7815 steering wheel lock plate remover, No. 7889 steering pivot pin remover for Saginaw steering columns, No. 7245 steering wheel puller, plus four sets of cap screws (2 of each size: M8-1.25 x 90 mm, 3/8”-16 x 3-1/2”, 5/16”-24 x 3-1/2”, and 5/16”-18 x 4”).
- Contained in convenient plastic blow-molded case.

6930
**Flange-Type Puller Combination**
Heavy-duty flange puller features a live center forcing screw. Includes two live center forcing screw tips and two sets of commonly used automotive bolts. Puller will work on bolt circles from 1-1/2” to 4-1/4”. Three cap screws, 3/8-24 x 3” long, and three cap screws, 3/8-16 x 3” long.

7815
**Steering Wheel Lock Plate Remover**
This is an essential tool for compressing steering wheel lock plates on AMC, Chrysler, and GM vehicles, with or without tilt steering columns. It’s also necessary for accessing the turn signal switch and SIR modules on GM vehicles.
- Also works on metric columns.

7245
**Steering Wheel Puller**
This puller removes steering wheels on most domestic and imported vehicles, with or without telescoping steering columns. Five sets of cap screws are included for various thread requirements. The forcing screw features a swivel end to protect steering shaft. Cap screws included (pairs): 3/8-16 x 3-1/2; 5/16-18 x 3-1/2; 5/16-24 x 3-1/2; M8-1.25 x 90 mm; 5/16-18 x 4 (SIR). Bar measures 4” x 1” x 1”.

7403
**Steering Wheel, Pulley, and Flywheel Puller**
Here’s a puller that works in a variety of applications. It pulls steering wheels on most late model cars. It also works as a regular 2/3-way puller to remove pulleys and small engine flywheels. Cap screws included (pairs): 3/8-16 x 3-1/2 in.; 5/16-18 x 3-1/2 in.; 5/16-24 x 3-1/2 in.; M8-1.25 x 90 mm; and 5/16-18 x 4 in. (SIR).
- Works on domestic cars with or without collapsible steering columns.
**THE 6637 STRUT TAMER II EXTREME SETS A NEW STANDARD IN STRENGTH AND SAFETY FOR STRUT SPRING COMPRESSORS.**

- New forged locking jaws include larger pads and offset to clamp onto and compress springs even tighter than before.
- New extra thick 5/8" compression arms for superior strength, stability and safety.
- New locking trunions for optimal stability during spring compression.
- New Lock rings to hold arms in position – standard. This eliminates arms from spreading or sliding when compressing offset or unique strut configurations. No tools needed to adjust.
- New Spring capacity of 2-1/2" – 10" diameter, 1-1/4" – 24" vertical stroke.
- Extreme duty design to handle the heavier springs found on mid- and some full-size truck strut assemblies.

**6637-ST**
**StrutTamer II Extreme**
with stand
- Height 54" (1372 mm)
- (36" without handle)
- Width 22-1/2" (572 mm)
- Depth 32" (813 mm)

**6637**
**StrutTamer II Extreme**
- Height 29" (736 mm)
- Width 21" (533 mm)
- Depth 20" (508 mm)

**6582**
**StrutTamer Stand**
- Height 44" (1118 mm)
- Width 22-1/2" (572 mm)
- Depth 32" (813 mm)

**6591-1**
**Upper Arm Clamps**

**2:1 Reduction Gearbox - standard**
- Allows a 2:1 torque compression increase when compressing struts.
- Fits on StrutTamer™ or StrutTamer™ HD.

**6494**
**Clamshell Strut Spring Compressor**
- Servicing MacPherson struts is convenient and affordable with this compressor. It fits a wide range of struts and requires no special adapter shoes.
- Locking pins hold the compressor jaws in place.
- Tool compresses springs of 4 in. to 9 in. O.D., with diameters of 7/16" to 11/16".
- Built to use with an impact wrench.

**6583**
**StrutTamer™ Compressor Bridge Accessory**
- Used to compress strut springs if technician prefers to press on the top plate of the strut rather than attaching the locking jaws to the top coils of the spring.
- Attaches to the locking jaws and is manually adjusted to bridge the strut top plate to be compressed. Lower part of spring is still held in the two lower locking jaws.

**Note:** 6637-ST, 6637 can be shipped UPS.
6559
Ball Joint Master Service Kit. The ultimate ball joint service kit!
• The 6559 Ball Joint Master Service Kit offers complete coverage of Car and Truck/Van/SUV applications. With 70+ adapters, c-frame and application guide means there is nothing else to add for servicing ball joints.
• The majority of vehicles have press-in ball joints, so stop searching for make-shift solutions for servicing these vehicles – everything required is laid out in this one complete kit.
• With a kit of this magnitude, finding the correct adapters and using them correctly is key to minimizing service time. That is exactly what the included ball joint application guide is designed to do – contains application charts and diagrams with step-by-step instructions.

6530
Ball Joint Intermediate Service Kit
• This 20+ adapter kit covers many Truck/Van/SUV applications and some car applications.
• With the majority of Cars and Truck/Van/SUV applications having press-in ball joints and universal joints, this kit is designed to service many of those applications.
• This kit is a combination of 7249, 7918, and 7996 kits, and includes 20+ adapters, C-Frame, and Application Diagrams all provided in a case.

6539
Truck Ball Joint Master Service Kit.
• This 50+ adapter kit is the most complete Car ball joint service kit available, and the first of its kind on the market.
• With 70% of OEM’s having cars with press-in ball joints, this kit is designed to service those applications.
• This kit is a subset of the 6559 and includes 50+ adapters, C-Frame, Ball Joint Application Guide, and Location Card all provided in 2 cases.

6529
Car Ball Joint Master Service Kit.
• This 50+ adapter kit is the most complete Car ball joint service kit available, and the first of its kind on the market.
• With 70% of OEM’s having cars with press-in ball joints, this kit is designed to service those applications.
• This kit is a subset of the 6559 and includes 50+ adapters, C-Frame, Ball Joint Application Guide, and Location Card all provided in 2 cases.

8031
Chrysler/Jeep Truck/Van/SUV Service Kit
• This 18 adapter kit covers Chrysler/Jeep Truck/Van/SUV 2WD and 4WD applications.
• Includes Large C-Frame for use with the OEM size ball joint adapters.
• Includes 18 adapters, Large C-Frame, application chart and instructions all provided in a case.

7249
Ball Joint Starter Service Kit
• This starter kit is the backbone to ball joint, U-joint, anchor pins, and many other general pressing operations. Kit includes 5 adapters and C-Frame provided in a case.

7248
U-Joint Removing/Installing Tool
This helpful tool uses a forcing-screw press to safely remove and replace automotive universal joints with needle bearings, including GM plastic pin CV U-joints.
Similar to Ford 205-086 (T74P-4635-C)
7918
Ball Joint Update Adapter Set
• This adapter set will update a 7249 Ball Joint Starter Service Kit to a 6530 Ball Joint Intermediate Service Kit, less the 7996 Honda Ball Joint Lower Ball Joint Adapter Set. Greatly expands the application coverage.

6529-1
BMW Car Ball Joint Adapter Set
• 11 adapters included to remove & install ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

6529-2
Chrysler/Mitsubishi Car Ball Joint Adapter Set
• 20 adapters included to remove and install ball joints.
• Works on upper and lower ball joints on: Chrysler, Dodge, Plymouth, and Mitsubishi cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

8033
Chrysler Ball Joint Socket
• Removes and installs the screw-in type ball joints used on mid-size, rear-wheel drive Chrysler cars.
• Similar to Miller Tools No. C-3560.
• Socket is 2” long with a 3/4” drive; fits 1-59/64” ball joints.

6529-3
Ford/Mazda Car Ball Joint Adapter Set
• 25 adapters included to remove & install ball joints.
• Works on upper and lower ball joints on: Ford, Lincoln, Mercury, and Mazda cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

6529-4
GM Car Ball Joint Adapter Set
• 18 adapters included to remove & install ball joints.
• Works on upper and lower ball joints on: Chevrolet, Buick, Pontiac, Oldsmobile, and Cadillac cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

6529-5
Honda/Acura Car Ball Joint Adapter Set
• 19 adapters for removing & install ball joints.
• Works on upper and lower ball joints on: Honda and Acura cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

6529-6
Import Car Ball Joint Adapter Set
• 15 adapters for removing & install ball joints.
• Works on upper and lower ball joints on: Toyota, Hyundai, Kia, Infinity, Saab, and Nissan cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

6529-7
Ball Joint Starter Service Kit
• 6 adapters to remove & install ball joints.
• Works on upper and lower ball joints on: Honda and Acura cars with press in ball joints.
• Vehicle application chart and diagrams included. Does not include the 7248 C-frame press.

8032A
Ford/Mercury Car Ball Joint Adapter Set
• Allows easy removal and installation of the lower ball joint on 1996–2009 Ford Taurus and Mercury Sable vehicles.
• Lower ball joint can now be replaced without having to replace the entire spindle assembly saving up to an hour of labor.
• Adapters are used with OTC No. 7248 C-frame.

6648
Ford Transit Connect Van Ball Joint Adapter Set
This 4-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on Ford Transit Connect Vans. Set contains adapter part numbers 580517, 580526, 581646, and 581647 for use on 2010-2013 Ford Transit Connect Vans.

6653
Acura/Honda Ball Joint Adapter Set
This 4-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on select Acura and Honda vehicles. Set contains adapter part numbers 580518, 554419, 554414 and 313967 for use on:
• 2009–2014 Acura TL and TSX
• 2008–2012 Honda Accord
• 2010–2011 Honda Accord Crosstour
• 2012–2014 Honda Crosstour

6734
Honda/Acura Car Ball Joint Adapter Set
Use this three-piece tool kit, along with OTC C-frame No. 7248, to remove and install lower ball joints on the following Honda and Acura vehicles:
• Honda Accord Sedan ‘03–08
• Honda Accord Coupe’03–08
• Acura TSX ’04–08

Honda Car Ball Joint and Adapter Set
6649  
**Chevy/GMC Ball Joint Adapter Set**  
This unique 3-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on Chevy and GMC vehicles. Set contains adapter p/n’s 580524, 305227 and 580523 for use on 2011-2017 2500HD and 3500HD:  
- Chevrolet Suburban, Avalanche and Silverado  
- GMC Sierra and Yukon XL

6652  
**Subaru Ball Joint Adapter Set**  
This 3-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on select Subaru vehicles. Set contains adapter part numbers 581996, 581995 and 581994 for use on:  
- 2005-2006 Baja  
- 2016-2017 Crosstrek  
- 1998-Present Forester  
- 1993-Present Impreza  
- 1990-Present Legacy  
- 2000-Present Outback  
- 2015-Present WRX  
- 2014-2015 XV  
- 2013-2015 XV Crosstrek  
- 2006-2007 B9 Tribeca  
- 2008-2014 Tribeca

6647  
**Lexus/Toyota Ball Joint Adapter Set**  
This 4-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on select Lexus and Toyota vehicles. Set contains adapter part numbers 222307, 305227, 204508A and 580569 for use on:  
- 2008-2014 4Runner  
- 2003-2009 GX470  
- 2006-2011 Azera  
- 2006-2010 Sonata

6646  
**Lexus/Hyundai/Kia Ball Joint Adapter Set**  
This 4-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on Lexus, Hyundai and Kia vehicles. Set contains adapter part numbers 554413, 580570, 581426 and 58355A for use on:  
- Lexus - 2006-2011 GS300  
- 2007-2011 GS350  
- 2006-2015 IS250  
- 2016-2017 IS300  
- 2011-2017 IS350  
- 2006-2007 Amanti  
- 2006-2008 Veracruz  
- 2007-2010 Azera  
- 2006-2010 Sonata  
- 2003-2009 Azera  
- 2006-2009 Sonata  
- 2003-2006 Elantra  
- 2006-2010 Tucson

6529-10  
**Car Ball Joint Master Set Upgrade for 6539**  
- 4 additional adapters required to complete a 6529 Car Ball Joint Master Set when added to the 6539 Truck Ball Joint Adapter Set.

6551  
**Mazda CX7 & CX9 Ball Joint Adapter Set**  
This 4-adapter set is used in conjunction with the 7248 C-frame to remove and install ball joints on Mazda CX7 and CX9 vehicles. Set contains adapter part numbers 580585, 554413, 531739 and 554414 for use on 2007-2012 CX7 and 2007-2014 CX9.

6539-1  
**Import Truck Ball Joint Adapter Set**  
- 35 adapters included to remove & install ball joints.  
- Works on upper and lower ball joints on Toyota, Honda, Acura, Hyundai, KIA, Infinity, Isuzu, and Nissan Trucks, Vans, and SUV’s with press in ball joints.  
- Vehicle application chart and diagrams included. Does not include the 7248 C-Frame press.

6539-2  
**Chrysler/Mitsubishi Truck Ball Joint Adapter Set**  
- 35 adapters included to remove and install ball joints.  
- Works on upper and lower ball joints on Chrysler, Dodge, Jeep, Plymouth, and Mitsubishi Trucks, Vans, and SUV’s with press in ball joints.  
- Vehicle application chart and diagrams included. Does not include the 7248 C-Frame press.

6539-3  
**Ford/Mazda Truck Ball Joint Adapter Set**  
- 32 adapters included to remove and install ball joints.  
- Works on upper and lower ball joints on Ford, Lincoln, Mercury, and Mazda Trucks, Vans, and SUV’s with press in ball joints.  
- Vehicle application chart and diagrams included. Does not include the 7248 C-Frame press.

6594  
**Dodge/Jeep Truck, SUV Ball Joint Adapter Set**  
Use with ball joint service set Nos. 6530, 7248, and 7249 to remove or install aftermarket and original equipment upper and lower ball joints, and the offset ball joints used to change caster/camber. Works on '84–'99 "downsized" Jeep Wagoneer, Cherokee and Comanche; '87–'08 Wrangler; '93–'04 Grand Cherokee; '94–'99 Dodge Ram 4WD 1/2-ton pickup.

6735  
**Sprinter Van Ball Joint Kit**  
- Eight piece kit contains the tools needed to service lower ball joints on '04–'09 Dodge and '04–'12 Freightliner® Sprinter vans: tie rod remover / separator; wheel alignment studs; ball joint remover; driver, receiver, and installing rings.  
- Use this kit with OTC No. 6736 C-frame.

6736  
**Large C-Frame**  
- Required for use with No. 6735 Sprinter Van Ball Joint Kit.  
- When used with OTC No. 6730 Update Kit, you can expand the applications of OTC Nos. 7249, 7918, 6529, 6539 and 6530 Ball Joint Kits.

6730  
**C-Frame Update Kit**  
Kit contains two adapters which, when coupled with the large C-frame 6736 included in OTC No. 8031 SUV Ball Joint Kit, make it possible to use any adapter designed for use with the smaller OTC No. 7248 C-frame.
6539-4  
GM Truck Ball Joint Adapter Set  
• 28 adapters included to remove & install ball joints.  
• Works on upper and lower ball joints on Buick, Cadillac, Oldsmobile, Pontiac,  
Chevrolet, GMC, and Hummer Trucks, Vans, and SUV’s with press in ball joints.  
• Vehicle application chart and diagrams included. Does not include the 7248  
C-Frame press.

6539-10  
Truck Ball Joint Master Set Upgrade for 6529  
18 additional adapters required to complete a  
6539 Truck Ball Joint Master Set when added to  
the 6529 Car Ball Joint Adapter Set.

6731  
Ford Truck Ball Joint Adapter Update Kit  
Three-piece kit contains specialty ball joint adapters for use with the industry standard OTC  
No. 7248 C-frame. Designed to work with the following Ford vehicles: F-150 ’97-’03, F-250  
’97-’99, Expedition ’97-’02, Explorer ’95-’05, Ranger ’98-’08.

7825  
Ford Van Ball Joint Adapter  
This tool enables you to quickly remove the  
lower ball joint on ’92 to ’08, 3/4- and 1-ton vans (E-250 and E-350) when used with ball  
joint service set Nos. 6530, 7248, and 7249.

7919  
Ford 2WD Van Ball Joint Adapter Set  
This set is designed to remove/install press-fit  
upper and lower ball joints. Fits most Ford  
’92 to ’04 2WD 3/4- and 1-ton vans.

6733  
Honda/Toyota Truck/Van/SUV Ball Joint Adapter Set  
Two-piece kit contains specialty ball joint adapters for use with the industry standard OTC  
No. 7248 C-frame. Designed to work with the following Honda and Toyota vehicles:  
• Honda CR-V ’97-’06, Honda Odyssey ’95-’06  
• Toyota 4 Runner ’96-’02, Toyota Sequoia ’01-’08  
• Toyota Tacoma ’95-’04

6529MAN-17  
Ball Joint Application Guide  
Reference all ball joint adapter applications. Can be used with all ball joint kits and  
adapter sets.  
• New application guide to cover Car and Truck/  
Van/SUV makes and models thru 2017.  
• References Bolt In/Press Fit, Removal/  
Install adapter p/n’s, and replace control arm  
applications.  
• Includes Remove/Install diagrams with adapter  
p/n’s to eliminate guess work.  
• Quick Reference Chart to quickly determine if  
tools are required and which kit contains them.

7704  
Domestic 4WD Truck Ball Joint Adapter Set  
This kit is used with ball joint service set Nos.  
6530, 7248, and 7249 to remove and install  
upper and lower ball joints on ’67 to ’92  
1/2- and 3/4-ton 4WD vehicles fitted with Dana  
44 front axles (found on Ford, Dodge, GM,  
International, and Jeep vehicles).

7080  
Domestic 4WD Truck Ball Joint Spanner Wrench  
Designed for removal and installation of ball  
joint adjusting sleeves on 1/2-, 3/4-, and  
1-ton Dana 44 open yoke front axles found on  
Chrysler, Ford, GM, International, and Jeep 4WD  
vehicles.  
• Permits easy torquing with 1” socket for  
correct upper ball-joint preload.

Sample of Diagram and Application Chart
SUSPENSION SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7068 Upper Control Arm Bushing Service Set
Now you can easily replace press-in type upper control arm bushings on most rear wheel drive Chrysler, Ford, and GM vehicles. Mechanical screw power does the work. Set includes C-frame, screw assembly, and all adapters needed for quick removal or installation of bushings without removing or damaging the control arm.

7822A GM Torsion Bar Unloading Tool
This rugged tool is built for 2010 and older GM K-3500 series trucks with heavy-duty chassis and a larger torsion bar. It features a larger C-frame opening to accommodate beefier torsion bars. The tool holds the torsion bar while you make adjustments. It also works on 1988 to 2012 GMC and Chevrolet 1/2-, 3/4-, and 1-ton pickups; the S-10 Blazer and S-15 Jimmy; 4WD pickups with 4.3L V-6 engines; and 1991 to 2001 Oldsmobile Bravada.

7832 GM Torsion Bar Unloader
• Larger design to also cover the newer GM truck applications.

7832-1 GM Torsion bar unloader
7852-2 Forcing Screw
Similar to Ford 204-185 (T95T-S310-AR)

7816 Ford Torsion Bar Adjustment Tool
Before servicing a torsion bar on 1995–2001 Ford Explorer and 1998–2001 Mercury Mountaineer vehicles, you must first contain the bar to avoid possible damage. This tool securely accomplishes that task, allowing you to make adjustments.

6535 Ball Joint Separator
Ball joint service is easier with this tool. It was designed to remove ball joints from spindle support arms, and can be used on a wide variety of vehicles, from compact cars to light-duty trucks.
• 16’ long and has a 15/16” fork spread.

7829 Ford Truck Torsion Bar Tool

7826 Ford Truck Torsion Bar Tool

7840 GM Caster/Camber Adjusting Tool
This tool is designed to make caster/camber adjustments quick and easy. Simply place it into the holes in the cross-member and lower control arm, then turn the tool’s turnbuckle nut to hold the correct adjustment. This allows you to tighten the adjusting bolts. For use on 1993 to 2000 Chevrolet Camaro and Pontiac Firebird. Also works on 1986–92 Buick Riviera, Cadillac Seville, Oldsmobile Toronado, and 1986–91 Buick Regal.

7537 18 mm hex wrench for use on U.S.-built 1985 to ’90 GM Astro vans.


Upper Arm Alignment Wrenches
These specialized 1/2” drive wrenches provide easy access to the upper control arm bolts for front wheel alignment jobs.

7537 18 mm hex wrench for use on U.S.-built 1985 to ’90 GM Astro vans.

7917 Live Center Forcing Screw Plug
This plug replaces the existing forcing screw on the No. 7248 C-frame to allow its use on heavy-duty ball joints. The shorter length gives the C-frame a wider opening to accommodate the larger ball joints on 3/4- and 1-ton trucks.

7588A Ford 4WD Caster/Camber Sleeve Puller
Rusted or seized bushings are no match for this puller. It easily pulls most aftermarket and OEM bushings on Ford 4WD vehicles. It’s the only tool that works on any angle OEM bushing, removing it quickly and without damage. For 1980 to ’96 Ford Broncos, full-size E- and F-series vans and pickups; 1983 to ’89 Ranger and Bronco II. The puller comes with adapters to pull most aftermarket bushings having removable retaining rings.

6007 Lower Control Arm Prying Tool
Installing a ball joint on a lower control arm typically requires the effort of two people. However, with this tool and our No. 7420 or 7421 pry bar – or any 7/8” diameter pry bar – it’s a one-person job.

221476 Arnwood-style bushing adapter.

Similar to Kent Moore J-38658
6939
Broken Bolt Extractor Tool
• Remove frozen, broken or cut off bolts within steering or suspension bushings.
• Can also be used to remove and install wheel studs and other general pressing needs.

6939-1
Broken Bolt Extractor Adapter Set
Available for use with the 7248 C-Frame.

5057
Broken Bolt/Clevis Pin Extractor Tool
Used for smaller application.

7544
Strut Rod Nut Socket (24 mm)
This specially designed socket is needed to loosen and tighten the top strut nut when servicing the strut spring or strut cartridge. The socket is used with a 1/2" ratchet or breaker bar to turn the strut nut while holding the strut rod with the appropriate wrench. The socket fits 24 mm strut rod nuts found on many domestic FWD vehicles including 1988–96 Pontiac Grand Prix, 1988–98 Olds Cutlass Supreme & Chevrolet Lumina sedan, 1995–99 Chevrolet Monte Carlo, and 1988–96 Buick Regal.

7707
VW and Audi Strut Nut Socket
This 1-3/4" long socket is built for VW and Audi FWD cars in which the top shock-retaining nut is recessed inside the strut tower. The tool’s center bore allows you to hold the strut shaft from turning, using a 7/8” (22 mm) hex key and appropriately sized wrench.

4533
GM W-Body Strut Tool Kit
• Includes one T50 TORX® bit, a universal drive handle, and a double-ended socket.
• Use one end of the socket to remove/install the jounce bumper; the other end to remove/install the strut cap nut.
Works on GM W-body vehicles:
– 1988–96 Pontiac Grand Prix
– 1995–99 Chevrolet Monte Carlo
– 1988–96 Buick Regal

7491C
GM Upper Control Arm Knock-Out Tool

7045B
Front Coil Spring Compressor
This compressor fits most late-model rear wheel drive domestic vehicles in which the coil springs are between the upper and lower control arms. The tool features four case-hardened, self-aligning plates to ensure correct load distribution under tension. Includes two 3-3/8” ID plates and two 4” ID plates. Will not work on Mercedes-Benz vehicles.

6578
Pinch Mount Expander Kit
• For servicing struts, ball joints, or steering knuckles with pinch bolt mounts.
• Remove most stubborn struts and ball joints with ease.
• This separator mounts in the pinch bolt holes and drives the anvil into the pinch slot, expanding the mount for easy component removal.
• Use on aluminum or cast iron pinch mounts; includes 2 dowel sizes.

7294
MacPherson Strut Spring Hook Compressor
These devices quickly and easily compress most sizes of MacPherson strut springs. Setup is fast and simple. Compression is achieved by alternating from one assembly to another. Each device has a heat-treated alloy thrust screw (5/8”–11 x 12”) with forged hooks.
Hub Grappler™ Complete solution for servicing wheel hubs and bearings on the vehicle without removing the steering components or knuckle, eliminating unnecessary alignments or the use of a shop press.

6575 Hub Grappler™ Kit
- Jaws designed and sized to properly fit hub applications and is quickly located on the puller bar without the use of fasteners.
- 3/4” custom drive screw coupled with the special equalizer washer provides smooth operation while proprietary heat treating extends its life 5-10 times longer than similar designs.
- Six adapters increase application coverage. Includes tie rod/ball joint tool and two Ford axle installers.
- Included Application Guide is the most comprehensive on the market.

6575H Hydraulic Hub Grappler™ Kit
- An economical way to increase the performance and speed of wheel bearing and hub service.
- Kit includes a through hole 9-ton ram, OTC 2510A air/hydraulic pump, 6 ft. hose with couplers, drive screw and nut.
- Jaws designed and sized to properly fit hub applications and is quickly located on the puller bar without the use of fasteners.
- 3/4” custom drive screw coupled with the special equalizer washer provides smooth operation while proprietary heat treating extends its life 5-10 times longer than similar designs.
- Six adapters increase application coverage. Includes tie rod/ball joint tool and two Ford axle installers.
- Included Application Guide is the most comprehensive on the market.

6575-1 Hub Grappler™ Puller
- The new Hub Grappler Puller is specifically designed to apply maximum force with minimal effort from an impact gun to also minimize service time.
- The new jaws are designed and sized to properly fit hub applications and can be quickly located on the puller bar without the use of fasteners.
- The new 3/4” custom drive screw coupled with the special equalizer washer provides smooth operation while the proprietary heat treating extends its life 5-10 times longer than similar designs.

6575-2 Hub Tamer™ to Grappler Update Kit
- This kit includes everything to update the previous Hub Tamer Kit to the New Hub Grappler kit.
- Includes the Hub Grappler Puller, 6 new adapters, misc. hardware and the new Hub Grappler Application Guide.

6575-2C
- Same as above, also includes Hub Grappler case 6575-4.

6575-3 Hub Grappler™ Hydraulic Kit
- The Hub Grappler Hydraulic Option is an economical way to increase the performance and speed of wheel bearing and hub service.
- Kit includes a through hole 9-ton ram, OTC 2510A air/hydraulic pump, 6 ft. hose with couplers, drive screw and nut.

6575-4 Hub Grappler™ Case
- Fits the Hub Grappler puller and adapters.
Samples of Application Diagram and Chart.

6290A Front Hub Puller for 4WD Vehicles
• For removal of the front hub assembly, necessary for wheel bearing or brake rotor service. Provides the mechanical advantage and straight pull not possible with a slide hammer.
• Will not work on trucks with dual rear wheels.

Services:

7901 Front Hub Puller for 4WD Vehicles
This puller is required for removing a front hub assembly in 3/4- and 1-ton 4WD pickups with 8-bolt hubs. It works on 1994 to 2014 Dodge Ram and 1988 to 2014 Ford and GM.
• Fits bolt hole pattern 8 x 6.5".
• Will not work on trucks with dual rear wheels.
• Use with our No. 7703 10-lb. slide hammer for maximum pulling force.

6574 Universal Hub Puller HD with Plate
• Universal Hub Puller HD – the “Final Answer” to frozen hubs, axle shafts, and other tough pulling applications.
- Adjustable sliding puller legs can be positioned anywhere on the puller center hub for a true universal fit on wheel hubs with 5”-8” bolt circles.
• Pulling plate allows for quick attachment and an even pull on the popular 5 bolt hubs with 4”-5” bolt circles.
• Forged puller assembly coupled with a 1” drive screw capable of 20 tons of force.
• Drive screw approved for use with an impact gun and can be struck with a hammer.
• Additional puller legs may be added to the center hub for special applications.

7394 Universal Hub Puller
With its adjustable sliding arms, this puller makes wheel-hub removal quick, easy, and damage free. It has maximum bolt circle of 7-1/2”.
- The No. 32937 puller leg is available separately to complete the five necessary for Cadillac and Jeep hub removal.
- Includes striking wrench and puller screw.

32937 Puller leg

6574-1 Puller Plate
Optional Puller plate with screws for 7394.

7208A Hub remover to push the axle shaft from the front hub

7135A Installer is used to pull the axle shaft into the front hubs on Ford Taurus/Sable vehicles. Fits axle shafts with 20 mm x 1.5 thread.

7924A Installer is used to pull the axle shaft into the front hub. Fits axle shafts with 22 mm x 1.5 thread on Ford Contour/Mystique, Probe, and Focus.

6577 Dodge Hub Service Set
• Removes stubborn hubs, using 2 methods.
- First, the 6576 Hub Pressing Tool is used to press off the hub with the aid of the power steering. The tool locates spacers between the U-joint yoke and axle housing. Unique design makes this a one person operation to remove the hub with the bearing in tact.
- In the event the Hub Pressing Tool does not budge the hub, the 6577 Hub & Bearing Housing Puller is used. This may separate the bearing, but the unique dual pattern design fits both the wheel hub and bearing housing, capable of applying 20 tons of force.
• Will not work on trucks with dual rear wheels.


7932 Ford Vacuum Front Hub Release Tool Set
Here’s the equipment you need to safely remove the plastic vacuum hubs on Ford pickups. Standard tools won’t work for the job, but this set has special clips that slip into slots on the hub to release it.
• For use on 1998 to 2000 4WD Ranger with vacuum front hubs.

Hub & Bearing Housing Puller
This may separate the bearing, but the unique dual pattern design fits both the wheel hub and bearing housing, capable of applying 20 tons of force.

Universal Hub Puller
With its adjustable sliding arms, this puller makes wheel-hub removal quick, easy, and damage free. It has maximum bolt circle of 7-1/2”.
- The No. 32937 puller leg is available separately to complete the five necessary for Cadillac and Jeep hub removal.
- Includes striking wrench and puller screw.

32937 Puller leg

First, the 6576 Hub Pressing Tool is used to press off the hub with the aid of the power steering. The tool locates spacers between the U-joint yoke and axle housing. Unique design makes this a one person operation to remove the hub with the bearing in tact.
- In the event the Hub Pressing Tool does not budge the hub, the 6577 Hub & Bearing Housing Puller is used. This may separate the bearing, but the unique dual pattern design fits both the wheel hub and bearing housing, capable of applying 20 tons of force.
- Will not work on trucks with dual rear wheels.


7932 Ford Vacuum Front Hub Release Tool Set
Here’s the equipment you need to safely remove the plastic vacuum hubs on Ford pickups. Standard tools won’t work for the job, but this set has special clips that slip into slots on the hub to release it.
• For use on 1998 to 2000 4WD Ranger with vacuum front hubs.
Slide Hammer Puller Set

Pulling Hook

Hub Resurfacing Kit

Ford Axle Shaft Seal Installers

6695 Ford Axle Shaft Seal Installer

6697 Ford Axle Shaft Seal Installer
Works on 2005-newer Ford F-250, F-350, 4x4s having the vacuum-operated front axle.

6698 Ford Axle Shaft Seal Installer
Works on 2005-newer Ford F-450, F-550, 4x4s having the vacuum-operated front axle.

8342 Hub Resurfacing Kit
- Fits your power drill to quickly sand rust off studs and mounting surfaces where it is important to have a clean and debris-free surface.
- The tool features a 1/4" dia. shank and a stud clearance pilot hole that accepts up to 1/2" studs.
- Sanding pads attach with Half turn thread.
- Includes holder and five sanding discs.
- Run at speeds between 5,000 - 20,000 rpm or less for best results.

552948 10 pack of replacement sanding pads

6578 Pinch Mount Expander Kit
- For servicing struts, ball joints, or steering knuckles with pinch bolt mounts.
- Remove most stubborn struts and ball joints with ease.
- This separator mounts in the pinch bolt holes and drives the anvil into the pinch slot, expanding the mount for easy component removal.
- Use on aluminum or cast iron pinch mounts; includes 2 dowel sizes.

1181 Multipurpose Puller Set
This assortment of puller tools gives you a wide range of job versatility. You get a 5 lb. slide hammer puller, hub puller, two sizes of OTC Grip-O-Matic® jaw-type pullers, a bearing pulling attachment, plus a cross-bar gear and pulley puller, all contained in a handy plastic storage case.

Set No. 1181 consists of:

- No. 1177 Slide hammer puller with a 5 lb. hammer, 2-way and 3-way heads. Reversible: either two or three jaws may be used to handle both “inside” and “outside” pulling jobs.
- 7208A Front hub puller for servicing front-wheel-drive cars. Includes a spare locknut, which permits use with a No. 1177 slide hammer for rear axle flanges.
- 1023 2-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 3-3/8” max. reach, 4-1/4” max. spread.
- 1027 5-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 5-1/2” max. reach, 7” max. spread.
- 7393 Bar-type gear and pulley puller with a 5-1/2” long screw. Includes two hex head cap screws, 3/8”-16 x 3” long. Spread range: 1-1/2” to 4-1/4”.
- 1122 Bearing pulling attachment for use with No. 1027 and No. 7393 pullers. Has 2” max spread, 1/8” min. spread.

4508 Professional Style Seal Puller
- Designed to remove oil and grease seals when servicing cars, SUVS, and light trucks without damaging the housing or bearing.
- Hook tips in two sizes and professional handle design allows removal of hard-to-get-at seals by getting under them.
- The tool is 12” long and the hook tip is double-secured (versus competitors’ designs), for durability.
- An extra blade is included, and additional replacements (No. 4508-1) may be ordered.

4508-1 Replacement blade for 4508

5 lb. Hammer in Polished Chrome Finish.

6541 Pulling Hook
- This slide hammer puller attachment is used to remove seals, bearings, and other press-fit parts.
- Designed to be used with OTC No. 1155 (5 lb.) or No. 1156 (2-1/2 lb.) slide hammer, or other slide hammers having 5/8-18 threads.

27315 Pulling Hook
- This slide hammer puller attachment is used on oil seals and bearings in situations where conventional methods won’t work.
- Designed to be used with OTC No. 1155 (5 lb.) or No. 1156 (2-1/2 lb.) slide hammer, or other slide hammers having 5/8-18 threads.

4579 9-Way Slide Hammer Puller Set
- Pulls flange-type rear axles and most front-wheel drive hubs.
- Internal and external jaws provide a variety of combinations to pull bearings, gears and seals.
- Two- and three-way cross blocks and cone provide the perfect jaw configuration for most jobs.
- Set also includes a grip wrench adapter and a deep puller attachment for sheet metal or other unique pulling requirements.
- Designed for use with other OTC 5/8”-18 thread slide hammer attachments.
- Packaged in blow-molded case.
Bearing Cup Remover
Ideal for servicing hubs on today’s popular front-wheel-drive small cars. The cone holds the jaws in place during pulling. Perfect for pulling internal bearing cups, seals, bushings, etc. Jaw spread: 15/16” to 3-1/4”, reach to 3-1/2”. Use with any slide hammer having a 5/8”–18 thread (OTC No. 1155 or No. 1156 or the No. 927 Push-Puller).

6402 Adjustable Bearing Race and Seal Driver
• Universal and fully adjustable.
• Twist head to adjustable from 3/4” to 3.5” (19mm to 89mm).
• Lock bolt holds jaws to preferred diameter.
• Steel striking cap mounted on aluminum handle and head provides a weight under 2 lbs.

1928 Locknut Socket – Ford
Drive 3/4” (6 pt.) 2-9/16” Hex
• This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
• For manual use only, impact wrench voids warranty.

4507 Bearing Race and Seal Driver Set (10 piece)
• This aluminum constructed set permits installation of tapered bearing races and seals without damage to the component or housing.
• Tapered side of driver is used to install races. Invert the driver to the flat side to install seals.
• Housed in a blow-molded plastic storage case.
• Includes driver handle with bolt, plus these tool sizes: 1.565”, 1.750”, 1.965”, 2.325”, 2.470”, 2.555”, 2.830”, 2.995”, and 3.180”.

Similar to Ford 205-039 (T70T-4252-B)

1902 Locknut Socket – Ford
Drive 3/4” (6 pt.) 2-3/8” Hex
• This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
• Services 1990–93 Dodge truck with Dana 60 manual hubs. 3/4” sq. drive.
• For manual use only, impact wrench voids warranty.

Fits special “rounded” hex nut found on Dana axles of some Ford trucks. Depth of locknut sockets is 5”.

1936 Locknut Socket – Ford
Drive 3/4” (6 pt.) 2-3/8” Hex
• This high-grade truck wheel bearing locknut sockets are made of high-strength steel and resist rounding out.
• Services 1990–90 Ford Ranger, Bronco II, and Explorer with automatic hubs.
• For manual use only, impact wrench voids warranty.

Fits special “rounded” hex nut found on Dana axles of some Ford trucks. Depth of locknut sockets is 5”.

5452 7-Piece Wheel Bearing Locknut Socket Set
For use with 1/2” ratchet or breaker bar. Set contains:

519097-1 2-3/8” hex locknut socket works on 1984–92 Ford Rangers and Bronco IIs with automatic locking hubs. Similar to Ford 205-040 (T70T-4252-B).
519097-2 2-9/16” rounded hex locknut socket works on 1990–93 Dodge trucks with Dana 60 manual hubs.
519097-3 2-1/2” hex locknut socket fits the hex nut found on rear axles and various front axle applications on light-duty trucks.
519097-5 2-1/2” rounded hex locknut socket works on 1995–96 Ford F-150 trucks and full-sized Broncos with automatic locking hubs. Similar to Ford 205-348 (T95T-1197-A).
519097-6 2-3/8” rounded hex locknut socket works on 1990–newer Ford Rangers, Bronco II, and Explorers with automatic locking hubs.
519097-7 55 mm hex locknut socket designed for use on front wheel adjusting nuts found on Toyota models FJ, LN, and RN.

Similar to Ford 205-043 (T70T-4252-W)

7948 Ten-way slide hammer puller set
• 2-3/8” Jaw (3 each)
• 3-3/4” Jaw (3 each)
• 6-1/2” Jaw (3 each)
• 3-Way Puller Head
• Adjusting Cone
• Hex Jam Nut, 5/16–24
• Hex Head Cap Screw, 5/16–24 x 11/8”
• 5 Lb. Hammer
• Shank and Tee Bar Assembly
• Cross Block
• Forcing Screw, 7/16–20 x 6.5”
Honda Locknut Socket
Toyota Locknut Socket
GM Locknut Socket
Ford Locknut Socket
Dodge Locknut Socket

6006
Locknut Socket - Dodge
- Services 1994–newer Dodge 1/2-ton 4x4 pickups with Dana 44 front axle and Dana 60 axle with vacuum disconnect front axle.

6601
Locknut Socket - Ford
- 1/2" sq. drive.
  Similar to Ford 205-448

6602
Locknut Socket - Honda

7157
Locknut Socket Ford, Dodge, GM
- 1/2" sq. drive.
  Similar to Ford 205-192 (T83T-1197-A)

7158
Locknut Socket Ford, Dodge, GM
- 1/2" sq. drive.
  Similar to Ford 205-D065 (D85T-1197-A)

7269
Locknut Socket Ford, GM
- 1/2" sq. drive.
  Similar to Ford 205-282 (T88T-4252-A) Kent Moore 3-42855

7612
Locknut Socket Toyota
- 54 mm hex socket fits front wheel bearing adjusting nut of Toyota FJ, LN, and RN. Has 1/2" square drive end, permitting use of a torque wrench.
- 1/2" sq. drive.

7698
Locknut Socket Isuzu, Honda, Jeep
- 1/2" sq. drive.

7795
Locknut Socket Ford
- 1/2" sq. drive.
  Similar to Ford 205-348 (T95T-1197-A)

7894
Locknut Socket Ford
- 1/2" sq. drive.
  Similar to Toyota 09318-12010-01.

7900A
Locknut Socket Ford, GM
- 1/2" sq. drive.
  Similar to Ford 205-D001 (D78T-1197-A)

7927A
Locknut Socket Ford, Dodge
- 1/2" sq. drive.
  Similar to Ford 205-244 (T86T-1197-AR)

6612
Locknut Socket Ford, Dodge
- 2-9/16" rounded hex locknut socket designed for use on front wheel adjusting nuts found on Toyota FJ, LN, and RN models.

6921
Locknut Socket Ford
- 1/2" sq. drive.

6928
Locknut Socket Ford
- Designed to fit the axle nut on Chevy Topkick/Kodiak, 2003 - Newer.
  Similar to J-44275.

7217
Axle Nut Socket
- Designed to fit the axle nut on Chevy Topkick/Kodiak, 2003 - Newer.

7218
Axle Hub Nut Socket
- Removes/install the axle hub bearing retaining nut.
  Fits GM 11-1/2" rear axle found on 2011 and newer trucks.
  9 Pin socket, 1/2" drive.
  Similar to CH-50636.
QUICK FINDER INDEX
AUTOMOTIVE SPECIALTY TOOLS

BRAKE
Brake Pad Gauge, Brake Fluid Tester .......................................................... 74
Brake Drum and Rotor Puller .............................................................. 74
Brake Caliper Tools, Disc Brake Tools & Brake Spring Tools ...................... 75 – 76
Flare Nut Locking Pliers .................................................................. 76
Brake Flaring Tools, Tubing Cutters ..................................................... 77
Vacuum Brake Bleeder, Vacuum Pumps ............................................... 78
Bending Tools .................................................................................. 78
Ball Hone Set, Brake Pressure Kit ....................................................... 79

WHEEL & TIRE
Tire Bead Seater, Dual/Single Wheel Separator .................................... 80
Tire Spoons ..................................................................................... 81
Tire Bead Breakers, Tire Service Hammers ........................................ 82
Tire Spoon Holding Pliers, Hub Cap Removal Tool ................................ 83
Hands Free Air Chuck, Torque Wrenches & Wheel Dollies .................... 84
**6596**

**Brake Pad Gauge**
- The 6596 Brake Pad Gauge allows for a definitive measurement of brake pads to determine remaining life.
- Unique design allows for measurement on the vehicle without the removal of any components in most cases (wheel assembly or brake caliper).
- Quick reference of brake pad condition via color code scale.

<table>
<thead>
<tr>
<th>Barrel Measurement</th>
<th>Quick Reference Color</th>
<th>Brake Pad Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 mm or more</td>
<td>Green</td>
<td>No replacement necessary</td>
</tr>
<tr>
<td>3 mm to 8 mm</td>
<td>Yellow</td>
<td>Suggest replacement soon</td>
</tr>
<tr>
<td>0 mm to 3 mm</td>
<td>Red</td>
<td>Recommend replacement</td>
</tr>
</tbody>
</table>

**4598-DOT3**
**Tester ON;**
- No water in brake fluid.
- Less than 1% water.
- Approx. 2% water.
- Brake fluid should be changed soon.
**DANGER!**
- At least 4% water.
- Immediately change brake fluid.

**4598-DOT4**

**6980**

**Brake Drum and Rotor Puller**
- Handles large components such as brake drums, rotors, drive wheels, gears, flywheels, and pulleys.
- One person can easily set the tool in place and use for tough pulls even where there is little access to insert the jaws.
- Spread to 12-3/4” and 5” of reach.
- 7-tons of force, yet weighs less than 10 pounds.
- Can be used with air tools to reduce time and fatigue.

**6979**

**Brake Drum and Rotor Puller**
- Designed for Medium/Heavy Duty Brake Drums/Rotors
- Accommodates brake drums and rotors up to 17.5” diameter
- Two screws included for standard and tall drum applications
- Puller reach is 12.25’
**4589 Disc Brake Piston Tool**
- This “cube” tool rotates pistons back into brake calipers when replacing brake pads on vehicles with rear wheel disc brakes.
- Tool has 3/8” square drive, provides six drive pin configurations to fit most cars and light trucks. This updated version fits more applications than many competitors’ tools.

**6093 Disc Brake Pad Spreader**
- Can be used on or off the vehicle during brake pad replacement to push the piston back into the caliper. Thick pushing plate (3/16”) and wide, threaded collars are designed for heavy-duty applications.
- Works on single and dual piston calipers.
- Slotted plate design provides universal fit on dual piston caliper applications.

**7317A Disc Park Brake Caliper Tool Kit**
- Includes caliper piston adapter from 1-1/2” to 2-1/2” to service most Audi, Chrysler, Ford, GM, Honda, Jaguar, Mazda, Mitsubishi, Nissan, Saturn, Subaru, Toyota, VW, Volvo, Saab vehicles with 4 wheel disc brakes.

**7034 Disc Brake Pad Spreader**
- For use on all standard and four-piston caliper disc brakes.
- Retracts piston and holds pads snugly in place for easy assembly of caliper over rotor.
- An extremely rugged tool that’s easy to use.

**4743 Motorcycle Brake Caliper Spreader**
- Compresses the brake pistons on most style calipers for easy pad replacement.
- Fits all front and some rear disc brakes.
- Range: .25” (5 mm) to 2.25” (58 mm). Works on all automotive applications in this range.

**4799 Brake Piston Removal Locking Pliers**
- This specially designed locking pliers allows the removal of brake caliper pistons during service or rebuild. The pliers is simply clamped into the I.D. of the caliper piston allowing it to be pulled out of the caliper. Range: 5/8” to 2-1/4” diameter pistons.

**6703 Line Fluid Stopper Kit**
- Stop messy fluid leaks and prevent contamination during service.
  - Kit seals all types of rubber and steel line found on fuel, brakes, AC, power steering and transmission system.
  - Includes two banjo style fitting stoppers, two steel line stoppers, six line plugs, a line disconnect tool, and a long reach line pinch-off tool for hard-to-reach hoses.

**FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM**
**6516**
**Brake Tool Set (8 piece)**
- Set contains the most popular brake tools for servicing drum brakes on many import and domestic vehicles.
- Includes three different brake spoons to adjust most brake drums, five different brake spring tools that will service most drum brakes.

**7299**
**Ford Caliper Pin Remover**
This is the damage-free way to remove brake caliper pins on 1986 to '88 Aerostar, Bronco, and E- and F-series pickups; 1983 to '88 Ranger, and 1984 to '88 Bronco II.

**7661**
**Caliper Hanger Set**
These hangers are designed to hold brake calipers out of your way during brake, bearing, suspension, or axle work. In doing so, they make the jobs easier and faster, and reduce possible brake hose damage.

**4590**
**Brake Spring Pliers and Claw**
- Effectively removes and replaces shoe return springs of drum brakes on domestic cars and trucks. Thin, narrow point provides straight, in-line pull on spring.
- Robust handle provides powerful leverage. Double-ended design. Plated steel resists corrosion.

**4591**
**Brake Spring Compressor Tool**
- Provides leverage to remove and install stubborn hold down springs of drum brakes on cars and light trucks.
- Special beveled cup end and notched design grips the retaining washers (11/16" to 7/8") used to hold the springs in place. Comfortable handle and knurled base for solid gripping.

**7302**
**Brake Caliper Pin/Bolt Remover Set**
- Allows for removal of inboard facing pins or bolts to be removed from the outboard side of the brake caliper or vehicle component.
- For caliper pin removal, simply back the pin bolt out half way and place the tool over the bolt shank to strike against the bolt head.
- Fits all sizes of pins or bolt shanks ranging from 1/4" (6mm) to 5/8" (16mm).
- Set includes:
  - 7302-1 A striking version.
  - 7302-2 Air hammer adapter.

**6720**
**Flare Nut Locking Pliers Set (3 pcs.)**
- Designed for use on new or damaged flare nuts that have been rounded or rusty.
- Fits Standard or Metric nuts and bolts.
- Angled jaws allow for clearance around frames and bulkheads.
  - 6720-1 Covers 1/4" to 5/16" (6mm to 8mm).
  - 6720-2 Covers 3/8" to 7/16" (9mm to 11mm).
  - 6720-3 Covers 1/2" to 5/8" (12mm to 16mm).

**6722**
**Brake Spring Locking Pliers**
- Designed to compress parking brake springs and hold them in a compressed position while servicing the brake cable or other brake components.
- Ford and Dodge applications.
**Mini Tubing Cutter**
- Works on tubing sizes 1/8" to 5/8" O.D. (3mm to 16mm).
- Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
- Extra cutting wheel stored in knob.

**Heavy-Duty Tubing Cutter**
- Works on tubing sizes 1/8" to 1-1/8" O.D. (3mm to 29mm).
- Easily cuts copper, brass, aluminum, and steel brake lines.
- Reamer folds onto cutter body for storage.
- Extra cutting wheel stored under reamer.

**Double Flaring Tool Kit**
- Designed for double or single flare in copper, aluminum, soft steel brake line, and brass tubing (to 45 degrees).
- Also performs 45° single flares on 4 mm, 4.75 mm, 6 mm, 8 mm, 10 mm, 12 mm, and 14 mm copper, aluminum, brass, and magnesium tubing.
- Includes five adapters 3/16" through 1/2" (4.8 mm through 12.7 mm).

**Bubble (I.S.O.) Flaring Tool Kit**
- Designed for crack-free bubble flares on soft steel tubing used in automotive brake systems.
- Also performs 45° single flares on 3/16" (4.8 mm), 1/4" (6.3 mm), 5/32" (8 mm), 3/8" (9.5 mm), 7/16" (11.1 mm), and 7/16" (11.1 mm) copper, aluminum, brass, and magnesium tubing.
- Includes four dies: 4.75, 6, 8, and 10 mm adapters.
- Forged steel yoke, flaring bar, and all the adapters needed for ISO bubble flaring.
- The most economical “Bubble” flare tool to date. Housed in a blow-molded storage.

**Double Flaring Tool Set with Cutter**
- Designed for steel brake lines where double flaring is required.
- Includes the No. 6514 tubing cutter and adapters for double flaring 4 mm, 4.75 mm, 6 mm, 8 mm, and 10 mm tubing.
- Housed in a plastic blow-molded case.

**Metric Double Flaring Tool Set with Cutter**
- Designed for metric, steel brake lines where double flaring is required.
- Also performs 45° single flares on 4 mm, 4.75 mm, 6 mm, 8 mm, 10 mm, 12 mm, and 14 mm copper, aluminum, brass, and magnesium tubing.
- Includes the No. 6514 tubing cutter and adapters for double flaring 4 mm, 4.75 mm, 6 mm, 8 mm, and 10 mm tubing.
- Housed in a plastic blow-molded case.

**Master Brake Flaring Tool Kit**
Covers Single, Double, and Bubble type flares:
- Single Flare Standard Lines 3/16" – 1/2".
- Single Flare Metric Lines 4mm – 14mm.
- Double Flare Standard Lines 3/16" – 1/2".
- Double Flare Metric Lines 4mm – 10mm.
- Bubble Flare Standard Lines 3/16" – 1/2".
- Bubble Flare Metric Lines 4.75mm – 10mm.
- Kit contains flaring bar, arbor press, adapters, tube cutter, deburring tool, all in a hard case.
**BRAKE SERVICE**

**AUTOMOTIVE SPECIALTY TOOLS**

---

**4403**

Tubing Bender
- For 3/16" and 1/4" dia. tubing.
- Bend die approximately 1/2" radius.
- Can bend up to 180+ degrees.
- Quick release handle to easily remove tubing from bender.
- Sturdy steel construction.

**4404**

Tubing Bender
- For 5/16" and 3/8" dia. tubing.
- Bend die approximately 3/4" radius.
- Can bend up to 180+ degrees.
- Quick release handle to easily remove tubing from bender.
- Sturdy steel construction.

**6515**

3-in-1 180° Tubing Bender
- Capable of making 180° bends in copper, brass, aluminum, and steel tubing.
- Just one tool works on three sizes of tubing: 1/4", 5/16" and 3/8".

**4401**

Tube Bending Pliers
- Bends tubing from the side allowing for use in limited access areas.
- 3/16" and 1/4" dia. tubing.

**8106**

Master Cylinder Auto Filler
- Automatically refills the brake fluid reservoir during brake bleeding.
- Base plate retaining clip provides positive attachment to all master cylinder reservoir types.
- Positive venting system supplies unbroken, continual fluid flow.
- Height adjustment allows user to maintain correct fluid level on all reservoir types.
- On/Off tap allows installation and storage without drips or spills.
- Suitable for use on any level controlled re-filling application (e.g. clutches).

**8104A-SET**

Brake Bleeder with Auto Filler Set
This one man brake bleeding system allows for fast and efficient vacuum brake bleeding. The Vacuum Brake Bleeder has a universal rubber fitting that holds securely on brake bleeder screw. Attach shop air and use the quick release trigger for on-demand vacuum and hands free operation. 6 L capacity.

The Master Cylinder Auto Filler automatically refills the brake fluid reservoir during brake bleeding. Base plate retaining clip and height adjustment allows fit on all reservoir types. On/Off tap allows installation and storage without drips or spills. 20 oz. (600ml) capacity.

**8104A**

Vacuum Brake Bleeder
This one man brake bleeding system allows for fast and efficient vacuum brake bleeding. Universal rubber fitting holds securely on brake bleeder screw. Attach shop air and use the quick release trigger for on-demand vacuum and hands free operation. Compact size and 17 oz. (500ml) capacity.

**8106**

Master Cylinder Auto Filler
- Automatically refills the brake fluid reservoir during brake bleeding.
- Base plate retaining clip provides positive attachment to all master cylinder reservoir types.
- Positive venting system supplies unbroken, continual fluid flow.
- Height adjustment allows user to maintain correct fluid level on all reservoir types.
- On/Off tap allows installation and storage without drips or spills.
- Suitable for use on any level controlled re-filling application (e.g. clutches).

**8101**

Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank.

**8100**

Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm and 7 mm); 10-liter capacity tank.
7011 Ball Hone Set, 10 piece
- Ball Hones can be used for refinishing and resizing bores such as found in brake calipers, engine lifters, and u-joint yokes. Also useful for any bearing or bushing application.
- All hones are 180 grit Silicone Carbide for excellent cutting and finish.

One-Man Brake Bleeder Hose
- Removes air from brake system, one wheel at a time, and eliminates the need for an assistant.
- Hose easily attaches to bleeder screw, which holds hose in place and prevents leaking.
- Check valve on end of hose prevents air from entering brake system when pumping brake pedal.

4599 One-man brake bleeder hose, one only.
4809 One-man brake bleeder hose, set of four. Do all the wheels at the same time. Includes four of the No. 4599.

4546 Steering Wheel Holder & Pedal Depressor Kit
- This kit has two applications: 1) holds steering wheel in position for alignment adjustments, and 2) depresses brake pedal for various brake checks, including brake lamp operation.
- Rod easily slides in actuator for fast, easy installation of tool on brake pedal or steering wheel. Simply hand squeeze the actuator to accomplish fine adjustments.
- Kit includes: actuator assembly; extension rod for actuator (use when depressing brake pedal); hook assembly (hooks on steering wheel when depressing brake pedal or holding steering wheel); and flat pad (rests on front seal when holding steering wheel).

4546-1 Handle and Rod.
4546-2 Steering wheel and pedal holder.
5702 Tire Bead Seater
The 5702 OTC Tire Bead Seater provides many of the great features of its 5713 big brother, at a more economical price!
• The trigger style discharge valve allows for optimum airflow control while allowing both hands to firmly hold the tank/valve assembly, critical for effective and safe use.
• Unique nozzle design significantly reduces “blowback recoil” and contains discharge holes strategically placed for optimum inflation of a wide range of tire sizes and wheel diameters.
• Inline design allows for a comfortable distance from the tire and wheel while seating.
• ASME approved 2-gallon tank with inlet valve, pressure gauge, and relief pressure valve for safety.

5700A Accessory Tire Bead Seater
• Provides the ability to control the blast with both hands firmly on the nozzle assembly, increasing effectiveness and safety.
• Includes all the fittings to adapt the hose to most surge tanks found on tire changers. A tank hook is also included to hang the nozzle when not in use.
• Long 6-1/2” hose will reach all positions on the tire.

5735-PACK Tire Spoon Pack with Hang Rack
An upgraded pack of popular tire spoons features the 35” Double End Tire Spoon with Grip Grooves (5735 35G), 35” Curved/Flat Tip Curved Tire Spoon (5735-35) and 30” Curved Tire Spoon (5736-30), along with a FREE rack (5715) that can be hung on a toolbox or wall for easy organization.

5789-PACK Tire Service Display
Includes 23 popular tools for changing a tire.

5715 Tire Spoon Rack
• Designed to hold OTC Tire Spoons by the handle upset.
• Also holds tools with 3/4” or smaller diameter shafts.
• Can be hung on end of tool box or mounted to the wall via holes on 16” center.
**Convex Slip Head** - Unique “Convex Slip Head” curved design allows the spoon to slide easily into the tire bead while the spoon bump limits the depth for quick-and-easy operation.

**Grip grooves** - Eliminate spoon slippage on the wheel rim while mounting or demounting the tire. The grooves also limit the depth of the spoon to help eliminate pinching tire tube applications.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>5716</td>
<td>HD Sliding Tire Spoon</td>
<td>38” extends to 52”, 3/4” diameter. Inner slide bar provides hammer action to easily insert and remove the spoon.</td>
</tr>
<tr>
<td>5716G</td>
<td>HD Sliding Tire Spoon with Grip Grooves</td>
<td>38” extends to 52”, 3/4” diameter. Inner slide bar provides hammer action to easily insert and remove the spoon.</td>
</tr>
<tr>
<td>5720</td>
<td>Sliding Dual Tire Spoon</td>
<td>35” and 3/4” diameter. Unique configuration provides mount and demount heads on either end with the aid of a slide hammer mounted mid bar, allowing for hammering either end in or out of the tire bead. Twist-lock feature locks 3.5 lb. slide weight in position.</td>
</tr>
<tr>
<td>5724</td>
<td>Extending Tire Spoon</td>
<td>22” extends to 34”, 3/4” diameter. Twist-lock feature allows the spoon to be extended to any length and locked into position with a twist of the collar.</td>
</tr>
<tr>
<td>5734-18</td>
<td>Tire Machine Spoon, Double End</td>
<td>18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.</td>
</tr>
<tr>
<td>5734-18G</td>
<td>Tire Machine Spoon, Double End with Grip Grooves</td>
<td>18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.</td>
</tr>
<tr>
<td>5735-18</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>18” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-18G</td>
<td>Double End Tire Spoon with Grip Grooves</td>
<td>18” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-35</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>35” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-35G</td>
<td>Double End Tire Spoon with Grip Grooves</td>
<td>35” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-42</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>42” Same great design as the original double end mount/demount tire spoon, but in a 42” length for added leverage. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-42K</td>
<td>Double End Tire Spoon with Kick Start</td>
<td>42” Includes kick loops to allow the spoon to be forced into tight bead locations with the help of foot pressure. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-18</td>
<td>Curved Tire Spoon, 18”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-18G</td>
<td>Curved Tire Spoon with Grip Grooves, 18”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-24</td>
<td>Curved Tire Spoon, 24”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-24G</td>
<td>Curved Tire Spoon with Grip Grooves, 24”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-30</td>
<td>Curved Tire Spoon, 30”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5737-30</td>
<td>Flat Tip Curved Tire Spoon, 30”</td>
<td>Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5739-24</td>
<td>Curved Shank Tire Spoon, 24”</td>
<td>The curved shank allows improved access for the spoon head around the tire bead or wheel rim. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5739-30</td>
<td>Curved Shank Tire Spoon, 30”</td>
<td>The curved shank allows improved access for the spoon head around the tire bead or wheel rim. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
</tbody>
</table>
Tire Service Hammers, Indestructible Handle
- Indestructible handle – never needs replacement!
- Ergonomic rubber grip handle reinforced with steel bars resists breaking while absorbing impact and vibration.
- Drop-forged head is induction-hardened for long life, and contains steel locking plates that are specially bonded to ensure the head never becomes loose.
  - Use top hook as a wheel tipper; sledge end hook to drag tire into position.
  - Bead breaking wedge has grooves and a convex shape to help drive tire lube into the bead.

5789ID-520 5 lb. head, handle length 20”, total weight 7.3 lbs.
5789ID-1032 10 lb. head, handle length 32”, total weight 14.4 lbs.

5728 Tire Bead Breaker
- This tool will break beads in applications where other bead breakers have failed. A tire with a very weak or damaged sidewall due to a zipper rupture, or driven too far while flat, can be near impossible to break the bead with conventional bead breakers. Other applications like extremely soft sidewall tires, such as ATV tires, is where this unique bead breaker works and other do not.
- Unique head is designed to provide a large striking area for all angles, while providing the mass needed to break the tire bead.
- This design puts the force exactly where it’s required and eliminates the possibility of accidentally hitting the wheel, problems typically encountered while using larger swing hammer style bead breakers.

5727 Sliding Bead Breaker
- The unique wedge design allows for consistent and accurate impact angle without adjusting the handle angle.
- The split head design provides wider tire force area while reducing drag on the wheel rim.
- Foot loops allow for extra foot pressure for bead breaking with fewer strikes.
- The head is also designed to tip tires from either side of the wheel. Includes wheel tipping slots to easily flip 290 lb. tires without hurting your back.
- Hammer shaft does not fall out of hammer body like competitive units.

5752 Wheel Loader & Tipper
- The new ergonomic wheel loader and tipper integrates two very helpful tools into one.
- The wheel loader feature allows a technician to lift various sizes and types of wheels and tires in and out of a truck bed.
- The wheel tipper feature allows the technician to flip a wheel over during tire service, or just tip up a wheel and tire to move.
- Both of these features allow the technician to easily and safely service and lift wheels by eliminating the need to bend over to lift, dramatically reducing the risk of back injury.
- Works on steel or aluminum wheels, inflated or deflated.

5750 Wheel Tipper
- This ergonomic wheel tipper allows the technician to flip a wheel over during tire service, or just tip up a wheel and tire to move.
- Allows the technician to easily and safely service wheels by eliminating the need to bend over to lift, dramatically reducing the risk of back injury.
- Works on steel or aluminum wheels, inflated or deflated.

5729 Outside Dual Wheel Bead Breaker
- Breaks the inner bead on the outside tire without removing the wheel from the truck.
- Unique design places pressure in the exact location required to quickly and easily break the inner bead.
- Simply pull up on the handle and the bead is forced off the wheel rim.

5047LP Lug Nut Cap Remover Locking Pliers
- Designed to remove lug nut caps found on many heavy-duty trucks and trailers quickly and easily without damage. Caps can be easily damaged by prying or using standard cap removers.
- Locking pliers design with specially coated jaws apply maximum grip on the lug nut caps without damage.

5047 Lug Nut Cap Remover
- Chrome-plated lug nut caps found on many heavy-duty trucks and trailers can be tough to remove, and they’re easily damaged if you pry them off or use an ordinary cap remover.
- This tool avoids those problems. It is ruggedly built and features specially coated jaws that won’t slip off the caps, no matter how much squeezing force you apply.
- Features cushioned handles.
**5731 Tire Bead Locking Pliers**
- Prevents the tire from slipping while mounting the top bead.
- Quick and easy universal clamping design.
- Rugged rubber coated jaw to protect wheel finish.
- Prevents tire from contacting costly TPM Sensors.

**5732 Tire Spoon Holding Pliers**
- Tire Spoon Holding Pliers is the 3rd hand needed to ease mounting and demounting of tires with tire spoons.
- Quick and easy universal clamping design.
- Rugged rubber coated jaw to protect wheel finish.

**5733 Tire Bead Wedge Pliers**
- Tire Bead Wedge Pliers keeps the tire in the bead drop area to ease mounting and demounting of larger truck and agricultural tires.
- Quick and easy universal clamping design.
- Rugged rubber coated jaw to protect wheel finish.

**5726 Bead Breaking Tool**
Designed to break down motorcycle, ATV and small garden tractor tires. The two-tool set includes a locking pliers and pry tool to quickly and easily break the bead. The locking pliers clamps to the wheel rim by forcing the wedged jaw into the tire bead. The pry tool incorporates a second wedge and a loop that quickly hooks to the locking pliers wedge jaw. The pry tool is then pushed down, breaking the tire bead.

**5758 Hub Cap Removal Tool**
- Unique slide hammer design eliminates prying against the wheel finish and potential scratches.
- Opposite end has a rubber bumper used to re-install cap with a simple tab.

**5730 Motorcycle Bead Holding Pliers**
Specialty locking pliers designed to hold the tire bead either up or down when mounting or demounting a tire. Clamp the non-marring pliers onto the wheel rim and use tire spoons to mount or demount the tire. The pliers eliminate the need to leave a tire spoon in position to hold the tire bead.

**5759 Bolt Circle Gauge**
- Universal and fully adjustable.
- Measures 4, 5, 6, 6 1/2 bolt patterns on wheels and hubs.
- Measurement units in Inches and MM.
Wheel Dollies

Torque Wrench Sets

Preset Torque Wrench Sets

Tire Pressure/Tread Depth Gauge

TPMS Tire Deflator/Locator;
Tire Valve Installer/Remover Tool
Hands Free Air Chuck
Tire Valve Stem Punch Kit

AUTOMOTIVE SPECIALTY TOOLS
WHEEL & TIRE SERVICE

5747
Tire Valve Stem Punch Kit
- Quickly and easily remove old valve stems from a wheel with a swing of a hammer.
- Simply place the punch tip on the inside of the valve stem and strike the punch to force the old valve stem out of the wheel.
- The unique punch tip is heat treated and shaped to remove all types of valve stems, including 10mm nickel plated, steel, and brass.
- Works on 412, 413, and 418 valve stems.
- Includes hand protecting grip with interchangeable 5” and 8” punch adapters for car and truck wheel applications.

5747-2 Tire valve punch tip, 5”
5747-3 Tire valve punch tip, 8”

5745
Hands Free Air Chuck
- Perfect for applications where the tire valve is facing the floor while seating the tire bead, such as most dual wheel configurations.
- Hooks on the top bead seat of the wheel and the spring pressure holds the chuck on the tire valve pointing to the opposite side.
- Ball valve included to allow inflation only when needed.
- Allows for safe tire inflation when used with a 6” to 8” inflation hose.

4750
Tire Valve Installer/Remover Tool
This 14” steel tire valve tool includes a stepped rubber sleeve that can be positioned on the handle for optimum pulling angle of the valve, while protecting the wheel finish. Removes and installs snap-in style tire valves.

5744
TPMS Tire Deflator/Locator;
- Evacuates air from the tire without removing the valve core.
- Tire location is marked on the color coded deflectors so TPMS sensors can be replaced to the original location, eliminating the need for resetting.

4751
Tire Pressure/Tread Depth Gauge
This 3-in-1 gauge will measure tire pressure, lower tire pressure, and measure tread depth all in one gauge. Rugged cast housing for strength and long life.

5776 Preset Torque Wrench Set;
These color coded click torque wrenches are preset to the most common lug nut torque settings, making them perfect for tire shops.
- No need for adjustments
- Durable satin finish
- 1/2” Drive, 36 tooth
- Quick release ratchet head
- Perfect for Wheel / Tire shop
- Accuracy better than ±3% CW
Sold Individually:
5776-1 Preset Torque Wrench, 1/2” 65 lb-ft
5776-2 Preset Torque Wrench, 1/2” 80 lb-ft
5776-3 Preset Torque Wrench, 1/2” 100 lb-ft
5776-4 Preset Torque Wrench, 1/2” 120 lb-ft
5776-5 Preset Torque Wrench, 1/2” 140 lb-ft

1770A 1,500 lb. Capacity Dual Wheel Dolly
- Hydraulic jack provides almost 5” of lift and tilts wheel assembly 4° to prevent damage to wheel seal.
- Independent lifting rack provides maximum stability; rollers won’t catch on load.
- Swivel casters for easy maneuverability.
- 6” chain holds load in place.
- Covered by OTC Lifetime Warranty®.

5105B 1,100 lb. Capacity High-Lift Dual Wheel Dolly
- Effortless air-powered hydraulic lift system for a variety of applications.
- 0 to 42” lifting range.
- Six-inch lateral adjustment.
- Tilt adjustment of +15° to −8° ensures easy alignment.
- Features four swivel casters, two locking, for enhanced mobility.

5100 Wheel Mate™ Wheel Handler
- Enables truck technicians to easily remove, install, rotate, and transport single tire-wheel assemblies. Internal ratcheting jack with 14 inches of vertical travel — almost a foot higher than conventional dollies.
- U-shaped chassis that provides close, unhindered access to work area.
- A design that accommodates — and securely holds — almost any truck wheel, including wide-based singles, without restraining chains.
- Heavy-duty ball-bearing wheels mounted under ball bearing swivel casters for maximum maneuverability.
- Foot-operated wheel lock.
- Rugged structural steel tubing construction that meets the demands of the toughest shop environments.
**QUICK FINDER INDEX**

**AUTOMOTIVE SPECIALTY TOOLS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BATTERY</strong></td>
<td>86</td>
</tr>
<tr>
<td>Battery Terminal Tools</td>
<td>86</td>
</tr>
<tr>
<td><strong>ELECTRICAL</strong></td>
<td>87, 88</td>
</tr>
<tr>
<td>Crimping Pliers &amp; Wire Strippers</td>
<td>87</td>
</tr>
<tr>
<td>Wire Holders, Heat Shrink Tubing &amp; Heat Gun</td>
<td>88</td>
</tr>
<tr>
<td>Terminal Release tools, Anti-static Wrist Strap &amp; Radio Tool Sets</td>
<td>89</td>
</tr>
<tr>
<td>Air Bag Release Tools, Ford 6.0L Diesel Tools</td>
<td>90</td>
</tr>
<tr>
<td><strong>A/C</strong></td>
<td>91, 92</td>
</tr>
<tr>
<td>A/C Clutch Tools, &amp; Tubing Benders</td>
<td>91</td>
</tr>
<tr>
<td>Disconnect Tools, &amp; Line Fluid Stopper</td>
<td>92</td>
</tr>
</tbody>
</table>
4611 Battery Terminal Puller
- Designed to remove the battery cable clamp from the post without causing damage to the battery.
- Spring-loaded sharp jaws get under the clamp for a secure grip.

4612 3-Way Battery Post Cleaner
- Steel blades quickly clean top-post battery terminals and cable clamps; cleaners are marked “positive” and “negative.”
- Rema is tapered to clean both positive and negative battery cable clamps.

4613 Battery Pliers
- Serrated jaws firmly grip the battery terminal nut or bolt.
- Offset handles allow access in hard-to-reach areas.
- Works on top-post and side-post battery terminals.

4614 Side Terminal Battery Wrench
- Designed for use on GM side-terminal batteries, or any 5/16” hex head battery bolt.
- 5/16", 6 point, box end, 5-1/2” long, ratcheting wrench; insulated handle.

4615 Long-Side Terminal Battery Wrench
- Designed for use on GM side-terminal batteries, or any 5/16” hex head battery bolt.
- Long handle allows access to hard-to-reach battery terminal bolts.
- 5/16", 6 point, box end, 10” long, ratcheting wrench; insulated handle.

4616 Battery Terminal Wrench – 10mm
- Designed for use on 10 mm battery terminal bolts found on many import and domestic vehicles.
- 10 mm, 12 pt., box-end ratcheting wrench; 5-1/2” long with insulated handle.

4617 Side Terminal Battery Brush
- Designed to clean corrosion from side post batteries.
- One brush used to clean battery terminals; other brush used to clean battery cable ends.
- Plastic handle resists battery acid.

4618 Battery Brush
- Cleans dirt and corrosion from positive and negative battery posts and cable clamps.
- Plastic case resists battery acid and most cleaning solvents.

4619 Professional Battery Hydrometer
- Displays a battery’s specific gravity on an easy-to-read float; scale ranges from 1.100 to 1.300.
- Thermometer indicates what must be added or subtracted from the float reading to arrive at an accurate specific gravity reading for each battery cell.
- Flexible tip offers easy access to the battery cells while the battery is still in the vehicle.

4620 Battery Carrier
- Use to lift and install most top post and side terminal batteries.
- Designed to transfer lifting force to a secure hold on the battery; teeth on jaws offer a secure grip.
- Vinyl strap resists battery acid and will not conduct electricity.

4621 Two-Liter Battery Filler
- Replenish battery water the easy way! The fill nozzle on this container has an automatic shut-off that prevents overfilling; the handle on the side of the container makes the job a snap. Container holds up to two liters of distilled water.

4622 Battery Cable Cutter
- Designed to cut copper battery cable and aluminum electrical cable. IMPORTANT: Do not cut steel cable; damage to blades will occur.
- Precision-ground cutting blades provide a clean, square cut.
- 7” long handle gives extra leverage when cutting.

4677 3/8” Cable Cutters
- Perfect choice for cutting heavier copper and aluminum cables.
- This tool is especially valuable for battery service where replacing a terminal is required.
- Clean cut with minimal mushing of wire strands.

4639 Battery Terminal Service Kit (7 piece)
4611 – Battery terminal puller.
4612 – 3-way battery post cleaner.
4613 – Battery pliers.
4614 – Side terminal battery wrench.
4615 – Long-side terminal wrench.
4616 – Battery terminal wrench - 10mm.
4617 – Side terminal battery brush

4631 Battery Terminal Service Kit (8 piece)
Kit includes:
4611 – Battery terminal puller.
4612 – 3-way battery post cleaner.
4613 – Battery pliers.
4614 – Side terminal battery wrench.
4615 – Long-side terminal wrench.
4616 – Battery terminal wrench - 10mm.
4617 – Side terminal battery brush
4622 – Battery Cable Cutter

7645 Parasitic Draw Test Switch
Finding electrical problems that drain the battery is getting harder all the time. But using No. 7645 with your digital amp meter takes the guesswork out of a complicated job. Attach the test switch between the negative battery cable and the battery, and then road-test the vehicle. Next, connect an amp meter to the switch to determine the parasitic amperage draw, and locate the excessive electrical drain on the battery. Works on any vehicle with side- or top-post batteries.

6945 Parasitic Draw Test Switch
Test switch is used with an amp meter to isolate parasitic amperage draws on all GM vehicles or any vehicle with a side- or top-post battery. This tool attaches between the negative battery lead and the battery, then the vehicle road is tested. The next step is to connect an amp meter to each side of the switch, thereby allowing all available current to pass through the meter. Fuses are then removed one at a time until the circuit source of the parasitic draw is located. Similar to J-38758.
ELECTRICAL SERVICE

AUTOMOTIVE SPECIALTY TOOLS

5950K
CrimPro™ 4-in-1 Wire Service Set
CrimPro™ 4-in-1 Wire Service Set includes both the OTC 5950S CrimPro™ 4-in-1 Wire Tool and OTC 5950A CrimPro™ 4-in-1 Angled Wire Tool.

5950S
• Compact 7-inch design used 4 ways.
• Gripping nose - to pull, twist, bend, and shape.
• Crimper - crimps 12-20 AWG insulated and non-insulated wire.
• Stripper - strips 12-20 AWG wire.
• Cutter - ability to make cuts below pivot.

5950A
• The angled feature allows access to close quarters and facilitates superior crimps.
• Compact 7-inch design used 4 ways.
• Gripping nose - to pull, twist, bend, and shape.
• Crimper - crimps 12-20 AWG insulated and non-insulated wire.
• Stripper - strips 12-20 AWG wire.
• Cutter - ability to make cuts below pivot.

5912
Crimpwell™ Angled Crimping Pliers
• Universal crimping design accommodates soft wire – solid or stranded – 10-22 AWG.
• Cutting feature included for quicker preparation.
• 9” (228mm) in length, with protective grips to increase leverage and secure crimp.
• Angled design keeps the connector, the wire, and the crimper “in-line” – improving visibility and access in hard to reach places.
• Designed to not pierce connector insulation and also works on un-insulated connectors.
• Service tech can use as much force as desired to ensure connection and it will not damage connector insulation.
• Easy-to-use: Simply insert the connector into the crimping feature, slip over the connector and squeeze.

4498A
7-in-1 Wire Stripper and Crimper
• Strips insulation off electrical wires ranging from 10 AWG—22 AWG (0.6mm—2.6mm) in diameter. Pliers on tip of jaw for looping or grabbing wire in tight places.
• Heat-treated steel jaws cut solid or multi-strand wire.
• Screw cutter shears screws clean, with no thread clean-up required. Works on machine screw sizes 4–40, 5–40, 6–32, 8–32, 10–24, and 10–32.
• Crimps insulated and non-insulated wire terminals, 7mm—8mm spark plug wire connectors.

4467
Automatic Wire Stripper
• Quick removal of insulation on wire AWG 12-20.
• Comes with adjustable depth gauge (8mm to 12mm).
• Sharp v-shaped tooth easily removes insulation without any damage to soft wire strands.
• Cutting tool stored below the stripper.
• Features a space saving locking mechanism for pockets or tool drawer storage.

4484
Weather Pack Ratcheting Crimper Kit
Manage environmentally-sealed connection systems with the OTC 4484 Weather Pack Crimper Kit. Weather pack connection systems are designed to protect against exposure to heat, moisture and contaminants. Includes:
• Two interchangeable crimping dies coverage wire range AWG 22 / 20-18 (DIN: 0.35 / 0.5-0.8mm) and AWG 16-14 / 12 (DIN: 1.0-2.0 / 3.0mm).
• Dies are magnetically secure and easily changed.
• Instructions clearly illustrate how to create a weather-proof seal.
• Connections found on motorcycles, Class 7 – 8 tractors, automobiles and more.

4484-1
Ratcheting Weather Pack Crimper Chassis
4484-2
H6 Die AWG: 22/20-18 (Din 0.35/0.5-0.8 mm²)
4484-3
H7 Die AWG: 16-14/12 (Din 1.0-2.0/3.0 mm²)
4462 Wire Loom Threading Kit
The 4462 Wire Loom Threading Kit from OTC is a clever grouping of wire fishing tools for the automotive technician. Whether general wiring R&R - or adding Gauge Packs, Sound Systems, Vehicle Security and Camera Systems, these tools simplify placing the wiring within the protection of existing wiring looms, without cutting tape or zip ties and without damage to other wires.

There are 3 wire pulling tools in 15", 10" and 5.5" lengths for common automotive applications, the grommet insertion tool allows the wire to be captured within the tool to hold once it is placed, so you can grab from the opposite side of the firewall – and the pigtail tool assists when building a new harness on the workbench.

5953 Dual End Wire Holder
• Holds wire and connectors solidly during soldering or other wire service.
• Unique design allows connection to be held firmly on both sides with infinite adjustability.
• Insulated clips act as heat sinks to protect shrink tubing or other sensitive parts from heat.

5955 Magnetic Clamp Wire Holder
• Holds wire and connectors solidly during soldering or other wire service.
• Unique design allows connection to be held firmly on both sides with infinite adjustability.
• Insulated clips act as heat sinks to protect shrink tubing or other sensitive parts from heat.
• Clamp with magnet allows for attachment to a work bench, vehicle, or any other object for a firm base.

4470 Butane-Power Flameless MicroTorch
• Cordless 650° (1250°F) flameless heat.
• Waterproof piezo electronic ignition with locking trigger.
• Refillable fuel cell uses standard butane lighter fluid (butane NOT included).
• Ideal for automotive and heat shrink projects.

4813 Heat Shrink Tubing Set (171 Piece)
Protection and insulation for solder connections and components. 2 to 1 shrink ratio with flame or heat gun.

4814 Waterproof Heat Shrink Tubing Set (106 Piece)
Waterproof protection and insulation on solder connections and components. Adhesive lined inner wall to seal out moisture. 3 to 1 shrink ratio with flame or heat gun.

4460 2-Piece Electrical Connector Separator Tool
• Releases locking tabs on electrical connectors, component connections & wiring harness connectors.
• Eliminates damage to the tab or connector.
• This pair of tools permits access to electrical connectors in any position.
4493
Angle-Tip Relay Pliers
• Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
• Specially coated tips offer a solid grip on the relay.

4461
Terminal Release Tool Set
• Save time and money. Repair or rebuild a wiring harness without having to order the entire OE replacement.
• Services most OE terminal connectors. Insert the appropriate release tool to depress the locking tab and the individual wire slides out for service or replacement.

Kit includes:
7737
Computer edge board and header release tool. Works on various domestic and import models.
7738
Weather Pack sensor terminal release tool. Works on various domestic and import models.
7740
Micro-style terminal release tool. Works on various domestic and import vehicles.
7741
Specifically designed to release ID computer terminals on 1988 thru current GM W bodies, 1990 thru current Chevrolet Lumina sedans, and various other domestic and import vehicles.
7742
Universal harness release tool designed for the RWAL (rear wheel anti-lock) microprocessor found on 1988 thru current GM pickups. Also works on various other domestic and import vehicles.
7743
Releases terminals on most body wiring connectors on various domestic and import vehicles, including cold start injector and timer, water, O2, vacuum, and air temperature sensors.

4448
Door Buzzer Shutoff Tool
• This simple tool allows for work with the vehicle door open without the annoying door buzzer on.
• High tension spring can be placed in the door jamb to close the door buzzer switch typically found by the hinges.

7744
Anti-Static Wrist Strap
Virtually eliminates the possibility of static electricity causing damage while working on electronic components.
• One-size-fits-most adjustable wrist strap.
• Includes a 6’ coil cord with alligator clip.

7737
7738
7740
7741
7742
7743
7744
7745
Ford 5-pin Connector Harness for Glow Plug Testing
• Provides an easy way to check glow plug resistance without having to remove the valve cover of 1994–98 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
• Used with any standard digital volt ohmmeter to check glow plug resistance.

4712
Euro Radio Removal Tool Kit
• Includes the popular tools needed to remove the radio from the dash on the following European vehicles: BMW, VW, Audi, and Mercedes-Benz.
• Easily removes the radio without damaging the radio or the dash panel.

4715
Deluxe European Radio Tool Set
• 18-piece set of tools used to remove radios on most European vehicles sold in the U.S. and Europe.
• Quickly and easily removes the radio from the dash without damage to the radio or dash.

Replacement Parts
4715-1 Removal Keys (4 pieces) Audi, Becker, Mercedes-Benz, VW.
4715-2 Removal Keys (2 pieces) Becker, Mercedes-Benz, Porsche.
4715-3 Removal Keys (2 pieces) VW.
4715-4 Removal Keys (2 pieces) Skoda.
4715-5 Removal Keys (2 pieces) Becker.
4715-6 Pentagon Wrench BMW.
4715-7 Bent U-hook (2 pieces) Blaupunkt.
4715-8 U-hook (2 pieces) Audi, Blaupunkt, Ford, Grundig, VW.
4715-9 Allen Hex Wrench BMW, Opel.

4711
Deluxe Radio and Antenna Service Kit
• Eleven-piece kit in molded case.
• Universal antenna wrench.
• Ford radio removal tool.
• Deep sockets to remove and install the tamper-proof radio nuts from many GM, Chrysler, and other aftermarket radios.
• Antenna nut sockets cover most import and domestic antenna nuts.
**ELECTRICAL SERVICE**
**AUTOMOTIVE SPECIALTY TOOLS**

**7575 Ford Radio Removal Tool Kit**
These dual-purpose tools release the retaining clips of a radio faceplate so you can pull the radio from the instrument panel. For use on 1987 to current Mustang; 1988 and newer Tempo/Topaz; 1989 to current Lincoln Continental; 1990 to current Taurus/Sable, Ranger/Bronco II, Probe, Lincoln Town Car, Mark VII, Crown Victoria/ Grand Marquis, Thunderbird/Cougar, F-series pickups and E-series vans; 1991 to current Explorer; 1995 to 2003 Windstar.

**5945 Air Bag Release Tool Kit**
- Use to remove the air bag module from the steering wheel.
- Work on many GM, Ford and Mercedes Benz vehicles.

**Applications:**
- GM 1999-2005 Chevrolet Impala, Lumina, Monte Carlo, Venture, Pontiac Bonneville, Grand Prix, Montana, Buick LeSabre, Century, Regal, Olds Intrigue, Cadillac El Dorado, Deville, STS, SLS.

**6711 Mercedes-Benz Dashboard Service Tool Kit**
- 8-piece tool kit contains:
  - 2) removal tools for ignition lock on model W126.
  - 2) removal tools for ignition locks on models W124 & W201.
- Covers virtually all Mercedes-Benz models since 1992.

**6764 Ford 6.0L Diesel IPR Controller**
When a hard start or no start condition exists, the 6764 allows a technician to close the Injector Pressure Regulator in order to determine if proper injector control pressure is achieved and sustained for the starting process.
- Tactile On/Off switch with LED confirming power to the tool and signal to the Injector Pressure Regulator.
- Permits a quick initial diagnosis of the pressure regulator when a hard start-no start situation exists.
- Used in conjunction with any scan tool capable of reading fuel pressure on 6.0L Ford Diesel.

**6766 Ford 6.0L Diesel Terminal Release Tool**
This Terminal Release Tool is required for removal of the vehicle’s injector wiring harness without causing damage to the component.

**6768 Ford 6.0L Glow Plug Release Tool**
Safely remove and install the glow plug harness on 2004-2009 Ford 6.0L Diesel engines.

**6756 Air Bag Simulator**
Ford air bag simulator. Special two-ohm resistor for use on 1993 and newer Ford system II air bags. When plugged into the vehicle harness connector, power is restored to simulate a complete circuit for diagnostic purposes.
A/C SERVICE
AUTOMOTIVE SPECIALTY TOOLS

4536
A/C Clutch Pulley Puller Set
- For removal of stubborn air conditioning clutch pulleys. Also used on many alternator, generator, power steering, and crankshaft pulleys, harmonic balancers, and fiber timing gears.
- Set includes drop-forged components: one 3/4"-16 x 5" live-center forcing screw, 5-1/2" crossbar with three spread settings, two pairs of jaws, and a clamp bolt.
- Spread: 3" to 5"; Reach: 1" to 5".
- Includes blow-molded plastic case.

4537
A/C Clutch Holding Tool
This three-stud spanner wrench keeps the A/C clutch from turning when loosening or tightening the retaining nut. Adjusts quickly with brass thumbscrews to fit various styles of A/C compressors used on GM, Ford, and Chrysler vehicles. Also fits a variety of other pulleys.

4535
A/C Clutch Hub Remover/Installer Set
- For damage-free removal and installation of the clutch hubs on these air conditioning compressors: GM-Harrison DA-6, HR-5, V-5, A-6, and early R4; Nippondenso Ford/Chrysler AS90, C171, FS-6, 6P148A (new style); Sanden & Sankyo; York/Tecumseh HR980; Zexel/ Mitsubishi CH series.
- Set includes a removing flange, plus forcing screws and adapter assemblies to remove and install virtually all clutch hubs.
- Includes blow-molded plastic case.

6720-4
Flare Nut Locking Pliers
- Covers sizes 11/16" to 7/8" (17mm to 22mm). Fits nut sizes found on power steering and AC lines.
- Designed for use on new or damaged flare nuts that have been rounded or rusty.
- Fits Standard or Metric nuts and bolts.
- Angled jaws allow for clearance around frames and bulkheads.

6515
3-in-1 180° Tubing Bender
- Capable of making 180° bends in copper, brass, aluminum, and steel tubing.
- Just one tool works on three sizes of tubing: 1/4", 5/16" and 3/8".

6512
Heavy-Duty Tubing Cutter
- Works on tubing sizes 1/8" to 1-1/8" O.D. (3mm to 29mm).
- Easily cuts copper, brass, aluminum, and steel brake lines.
- Reamer folds onto cutter body for storage.
- Extra cutting wheel stored under reamer.

6514
Mini Tubing Cutter
- Works on tubing sizes 1/8" to 5/8" O.D. (3mm to 16mm).
- Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
- Extra cutting wheel stored in knob.
A/C SERVICE
AUTOMOTIVE SPECIALTY TOOLS

A/C spring lock coupling tool
Spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

$18900 – Red, 3/8"
$18898 – Blue, 1/2"

A/C spring lock coupling tool
Spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

$18897 – Black, 5/8"
$18901 – White, 3/4"

7238
Spring Lock Coupler Disconnect Set
Set includes four sizes for use on 3/8", 1/2", 5/8", and 3/4" tubes. Allows quick, safe disconnect of spring lock couplers on late model Ford systems and Tecumseh HR980 compressors.

$18900 3/8” (red) Same as Ford 412-026 (T81P-19623-G1).
$18898 1/2” (blue) Same as Ford 412-027 (T81P-19623-G2).
$18897 5/8” (black) Same as Ford 412-038 (T83P-19623-C).
$18901 3/4” (white) Same as Ford 412-040 (T85L-19623-A).

6517
Disconnect Tool Set
Designed for A/C lines, fuel lines, and transmission cooler lines.
- Contains the 3/8” and 1/2” fuel line disconnect tool for Ford vehicles.
- Contains the 5/16” and 3/8” fuel line disconnect tools for GM and Chrysler vehicles.
- Contains the transmission oil cooler line disconnect tool used on many GM and Ford vehicles.

6508
Full-Coverage Disconnect Tool Set
If you’re working on Chrysler, Ford, or General Motors vehicles, this set can make your job easier. The tools are designed for heater hoses, transmission oil coolers, air conditioning and fuel lines. They’re approved by vehicle manufacturers and will not damage the fittings being disconnected. Tool Nos. 518902, 518906, 518897, 518898, 518899, 518900, and are spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

7242
A/C Spring lock coupler 1/2"

7239
A/C Spring lock coupler 3/4"

6509
3/8” & 5/16" Fuel Line Disconnect Tool
Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel line fittings and fuel filters, fuel rails, or sending units.

4495
A/C and Fuel Line Disconnect Set
- Used to remove A/C and fuel line quick-disconnect fittings from hard-to-reach areas.
**BODY SERVICE**
- Trim, Upholstery, Door Panels, Mirror .......................... 94 – 95
- Lockout Tools, Air bag, Windshield tools .......................... 95
- Hole Punch Kit, Punch Sets ........................................ 97
- Dent Puller .......................................................... 97
- Collision Repair .................................................... 98 – 99
- Pry Bars, Slide Hammers ........................................... 100
- Radio Removal Tools, Hose Removal Sets ..................... 101
- Hammers, Wire Crimping & Stripping Tools ................... 102

**FASTENER**
- Torx® Socket Sets .................................................... 103 – 104
- Screw Extractor, Drilling Guide System ......................... 104 – 105
- Impact Drivers, Thread Chaser, Battery .......................... 106
- Terminal Wrenches, Spanner Wrenches ......................... 106
- Torque Wrenches, Torque Multipliers, ......................... 107
- Torque Angle Gauges and Meter ................................. 107
- Giant Adjustable Wrenches, Strap Wrenches, Chain Wrenches, SmartTech™ Technician Gloves .......................... 108

**PLIERS & CUTTERS**
- Magnetic Pick Up Tool, Clutch Holder ......................... 109
- Retaining Ring Pliers .............................................. 110 – 111
- Hose & PVC Cutters, Hose Pinch Off Pliers .................. 112
- Angled Crimping Pliers .......................................... 113
- Pry Bars .............................................................. 114
- Hose Removal Set, Pick & Hook Set, O-ring Picks ........... 114

**STRIKE / STRUCK**
- Sledge Hammers ..................................................... 115
- Punch & Chisel Set, Bushing Driver Sets ...................... 116 – 117

**GENERAL PURPOSE**
- Work Lights .......................................................... 117
- Holder, Ball Hone Set, Air Blow Guns, Universal Pulley Holder, Service Cart ......................... 118
BODY SERVICE

AUTOMOTIVE SPECIALTY TOOLS

2551
Steering Column Anti-Rotation Pin
Installs into the steering column of most General Motors vehicles to keep the steering wheel orientation correct. Similar to J-42640.

2549
Cigarette Lighter Socket Remover
Universal tool removes cigarette lighter socket without damage to socket or dash. Tool end lines up with the two tab windows of the lighter socket for easy, damage-free removal. Handle hole allows for easy hanging or can be used as leverage point for difficult to remove sockets. Similar to J-42059.

2550
Key Fob Fixture
Used for removal and installation of the key blade pins in GM flip key fobs when replacing the fob and retaining the original key blade. Includes holding tray and drift pin for use with a hammer. Eliminates damage to all parts. Similar to BO-51098.

6644
Door Handle Spring Retainer
This tool allows for door handle replacement without having to remove the interior door panel on 2014 and later Cadillac ATS and Escalade, Chevrolet Colorado, Impala, Silverado, Suburban and Tahoe models. The tool installs into the door handle cavity and under the handle return spring to prevent it from unloading. Similar to BO-51363.

2497
3 Piece Push Pin/Body Clip Pliers Set
Remove plastic body fasteners and clips faster in nearly any location. A set of three push pin / body clip pliers includes straight, 45° and 90° jaws to reach in wheel wells, under bumpers and behind the dash to remove retaining clips. The various jaw angles help access hard-to-reach places while providing maximum leverage to remove clips quickly and without damage. The unique design lifts the center pin and pulls body clips without damaging anchors, eliminating the need to provide replacement clips. Reusing these fasteners saves money and time searching for replacements of various shapes and sizes. The 3-piece set comes with an OTC lifetime warranty against defects in material or workmanship.

4549
Door Panel & Upholstery Tool Set
Heavy-duty door panel and upholstery tools
4549-1
Removes window and door handle clips, and upholstery tucking.
4549-2
V-notched door panel clip removal tool
4549-3
U-notched door panel clip removal tool

4551
Door Panel & Upholstery Tool Set
Heavy-duty U-notched and V-notched tools with stainless steel blades used for removing small door panels and upholstery clips.

4489
Trim Fastener and Molding Removal Set
• Set includes five different sizes and styles of tools that allow easy removal of trim fasteners, moldings, and wheel hubs.
• Tools are made of plastic to prevent damage to trim, moldings, alloy wheels, or vehicle paint.
• Can be used on trim fasteners and moldings inside, or outside, the vehicle.

4492
E-Clip Tool Set, 5-piece
• Dual operation tool: one end of tool releases e-clip, other end of tool installs e-clip.
• Tools fit four sizes of e-clips: 6 mm, 7 mm, 8 mm, and 9 mm.
• Each tool easily locks into handle provided.
6642 Trim Tool Kit, 11-Piece
Includes 11 specialty tools designed to remove trim strips, panels, wheel caps, bezels, liners, shrouds, fascia, and more.
- Tools are constructed of durable, impact-resistant nylon that will not damage non-metal interior trim surfaces.
- Cloth pouch rests flat on a dashboard or fender for easy access to tools and then folds up with tools inside for storage.
- Kit has multiple applications in the automotive, aviation marine, and other industries.

6785 Euro Door Handle Kit
- This kit contains the tools needed to service most door hinges and door handles on Audi, Mercedes-Benz, Porsche, and Volkswagen vehicles.
- Kit includes: A ratchet wrench with three 12-point bits (4 mm, 8 mm, 10 mm), one T40 and one T45 TORX® bit, a T30 TORX® long handled driver; and a T20 TORX® T-handle driver.
- T30 driver, 14” long; T20 driver, 9-1/2” long; hex ratchet, 9-1/2” long.

4680 Wiper Puller
The 4680 Wiper Puller from OTC has a unique design where jaws are forged with radius to hug the center screw for minimal spread, and for accessing recessed components. The radius also ensures optimal contact with object being pulled. It comes with 2 pair of legs - 9/16” width and 1” width - for many types of small component applications. The leg shoulders fit easily over the hex bar and can be snugged into position with a simple turn of a wing nut. Where there is minimal clearance, or deeply recessed access, the 4680 is a great tool choice to overcome these obstacles. Spread: 1” to 2-1/2”; Reach: 2-1/2”. Lifetime Warranty.

5945 Air Bag Release Tool Kit
- Use to remove the air bag module from the steering wheel.
- Work on many GM, Ford and Mercedes Benz vehicles.

4800A Ford Mirror Removal Tool
Save shop labor time and cost by allowing mirror to be removed without damaging or removing the mirror assembly.
**Works on these outside door mirrors:**
- Windstar, Crown Vic, Grand Marq, Marauder, Taurus, Sable, Mustang, Town Car, Ranger, Excursion, Super Crew (F-250 – F-550), F-650, F-750, Escape, Thunderbird, Explorer, Mountaineer, Expedition, Navigator, F-150, E-Series van, LS, Explorer Sport, Explorer Sport Trac, Aviator, Dual arm mirror used on Excursion, Super, Crew (F-250 – F-550), F-650, F-750
- Also works on 1999 and newer Ford interior / rearview.

4658 Windshield Spray Nozzle Needle
- Makes quick work of clearing obstructions from the windshield washer spray nozzle.
- Easily pierces corrosion or remove blockage.
- The barrel is knurled for grip and control.
- Threaded end caps keep the needle points covered when not in use. The pocket clip keeps the tool handy.

4676 Truck Windshield Wiper Puller, 18mm
- Designed to remove aluminum wiper arm from the steel stud that often galvanizes, locking the arm and stud together.
- Investment cast design is strong, easier to use, and saves time.
- Live center and more precise alignment save labor. Works on these and many other vehicles: Jeep Liberty, Grand Cherokee, Dodge Caravan, Stratus, Ram Diesels, Dakota & PT Cruiser, Chrysler LHS, Town & Country, Saturn Vue Buick Rendezvous, Cadillac CTS, Ford Focus, Ford Windstar, Honda Civic, Odyssey Toyota Camry.
4448 Door Buzzer Shutoff Tool
- This simple tool allows for work with the vehicle door open without the annoying door buzzer on.
- High tension spring can be placed in the door jamb to close the door buzzer switch typically found by the hinges.

4449 Air Wedge Lockout Tool
- Air wedge is designed to create working room around the window frame when using other lockout tools.
- Adjustable inflation and release valve provides versatile use.

4546 Steering Wheel Holder & Pedal Depressor Kit
- This kit has two applications: 1) holds steering wheel in position for alignment adjustments, and 2) depresses brake pedal for various brake checks, including brake lamp operation.
- Rod easily slides in actuator for fast, easy installation of tool on brake pedal or steering wheel. Simply hand squeeze the actuator to accomplish fine adjustments.
- Kit includes: actuator assembly; extension rod for actuator (use when depressing brake pedal); hook assembly (hooks on steering wheel when depressing brake pedal or holding steering wheel); and flat pad (rests on front seal when holding steering wheel).
- 4546-1 Handle and Rod.
- 4546-2 Steering wheel and pedal holder.

4452 Master Lockout Tool Set
- Set includes:
  - Lock Knob Puller
  - Slide Lock Linkage Hook
  - Under Window Knob Puller
  - Under Window Lock Button Depressor
  - Under Window Slide Lock Puller
  - Lockout Wedge
  - Porsche Lock Button Depressor
  - Toyota/Chrysler Key Hole Lever
  - GM/Ford Linkage Slider
  - Ford Vent Window Lever
  - Vent Window Button Depressor
  - Vent Window Lever Puller
  - Bell Crank Thin Bar
  - Bell Crank Wide Bar
  - Mercedes/Vovlo Lock Linkage Puller
  - 119-2 Gas Cap Key
  - Instruction Manual

4485 Spot Weld Cutter Set
- Use with electric drill or air drill to cut 5/16” and 3/8” spot welds.
- Cutter bits have cutting teeth on each end.
- Replacement kit No. 4485-1 consists of (3) 5/16” cutter bits; (3) 3/8” cutter bits; and (4) centering tips.
- 4485-1 Spot weld cutter bits

7956 Air Bag Simulator
Ford air bag simulator. Special two-ohm resistor for use on 1993 and newer Ford system II air bags.
When plugged into the vehicle harness connector, power is restored to simulate a complete circuit for diagnostic purposes.

4450 Lockout Tool Set, 6-piece
- Set includes:
  - Lockout Wedge
  - Lock Knob Hook
  - Slide Lock Linkage Hook
  - Toyota/Chrysler Key Hole Lever
  - Vent Window Lever Puller
  - Bell Crank Thin Bar
  - Instruction Manual

4485-1 Spot weld cutter bits

4651 Screw Extractor Set
- Removes broken studs and bolts.
- Includes ten guide bushings, five drill bits and five screw extractors with extractor nuts.
- Drill bits are left handed to help removal.
BODY SERVICE

AUTOMOTIVE SPECIALTY TOOLS

4383 Hole Punch Kit
- Easy, smooth operation. Will pierce up to 14 gauge steel.

4629 Brass Hammer and Punch Set
- Brass-head hammer and punches are ideal to use where sparks from ferrous metals would be hazardous, or where precision metal parts could be damaged by steel tools.
- Two hammer head weighing 24 and 12 oz.
- Two tapered punches 14" x 5/8", 10" x 5/8".
- One hex tapered punch 8" x 5/8".
- Two drift punches 10" x 3/4", 8" x 1/2".
- Two pin punches 6" x 3/8", 4" x 1/4".

5900A-PLUS Master Torx® Bit Socket Set, 53-piece
Updated 53-piece Master Torx® Bit Socket Set plus special 24mm External Torx PLUS Socket (p/n 5932-24) required for Ford Super Duty pickup beds starting model year 2017. Socket kit includes various sizes of Torx, Torx PLUS, Tamper Resistant Torx, Bit Sockets and External Torx Sockets in 1/4", 3/8" and 1/2" square drive. Stored in a convenient hard plastic clamshell case for protection and organization. Not rated for use with impact tools.
Sizes included:
- Standard Torx: 1/4" Sq Dr T6, T8, T10, T15, T20, T25, T27, T30
- Standard Torx: 3/8" Sq Dr T40, T45, T50, T55
- Standard Torx: 1/2" Sq Dr T60, T70
- External Torx: 1/4" Sq Dr E4, E5, E6, E7, E8
- External Torx: 3/8" Sq Dr E10, E12, E14, E16
- External Torx: 1/2" Sq Dr E18, E20, E22, E24
- Torx PLUS: 1/4" Sq Dr TP8, TP10, TP15, TP20, TP25, TP27, TP30
- Torx PLUS 3/8" Sq Dr TP40, TP45, TP50, TP55
- Torx PLUS 1/2" Sq Dr TP60
- Torx Tamper Resistant 1/4" Sq Dr TT8, TT10, TT15, TT20, TT25, TT27, TT30
- Torx Tamper Resistant 3/8" Sq Dr TT40, TT45, TT50, TT55
- Torx Tamper Resistant 1/2" Sq Dr TT60
- External Torx PLUS 1/2" Sq Dr EP24

6627 Grip Wrench Adapters
- For grip wrenches using single-lead thread adjusting screw.
- Adapter threads onto a slide hammer with a 5/8"–18 thread.

205378 Grip wrench threads onto a 7/16"–14 end of adapter for pulling use.

557479 Grip wrench threads onto a 5/16"–18 end of adapter for pulling use.

557480 Grip wrench threads onto a 1/4"–20 end of adapter for pulling use.

898A Body and Fender Dent Puller
Often, the biggest time-consuming part of dent removal is the removal and installation of interior panels and upholstery. This tool eliminates those steps. Simply drill a hole at the base of the dent and thread in the tool’s self-tapping screw. A few sharp blows of the slide hammer will pull the dent out.
- Puller is 17" long with Pyralin handle grip.
BODY SERVICE
AUTOMOTIVE SPECIALTY TOOLS

4509
Straight-Blade Hose Cutter
• Cuts rubber hoses ranging from 1/4” to 1-1/2”.
• Simply place hose in tool and squeeze handle to cut.
• Replacement steel cutter blade No. 4509-1 is available.
4509-1 Replacement hose cutter blade.

4411
Ratcheting Hose & PVC Cutter (Standard)
• Cuts hose and PVC up to 1-3/8” dia.
• Features metal frame and ergonomic handles for high leverage.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4412
Ratcheting Hose & PVC Cutter (Heavy Duty)
• Cuts hose and PVC up to 1-3/4” dia.
• Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4818
Multi-purpose Scissors
Will cut hose, wire and cables, wood dowel, PVC, and thin sheet metals in addition to general cutting. The hardened stainless steel blades have an angle ground into one that eliminates slipping when cutting round materials.

Hydraulic Spreader
• Included as standard equipment with our collision sets, these versatile hydraulic spreader tools are also available individually. Ideal for removing dents and creases, performing straightening jobs, or for use as a clamp. Makes working in tight spots easy.
• Maximum spread is 3-1/4”.
9101B 1/2-ton spreader with 1/4” NPT ram half coupler
9102 1/2-ton spreader with 3/8” NPT ram half coupler

Hydraulic Rams for Collision Repair Sets
These premium quality rams are designed for long, trouble-free service. Backed by a life-time warranty, they are ideal replacements for worn-out, leaky rams. They feature a special piston rod that permits their use with the snap-together components of OTC’s collision repair sets, or with most similar competitive products.

4082B 4-ton ram with 5” stroke and special piston rod end designed to fit most collision repair set components.
4083B 10-ton ram with 6-1/8” stroke and special piston rod end designed to fit most collision repair set components.

Specifications
<table>
<thead>
<tr>
<th>Min. height</th>
<th>Max. height</th>
<th>Spring return</th>
<th>Rod end dia.</th>
<th>Max. operating Pressure</th>
<th>Oil cap. (cu. in.)</th>
<th>Oil port</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-7/8”</td>
<td>15-7/8”</td>
<td>Yes</td>
<td>86”</td>
<td>8.950</td>
<td>4.78</td>
<td>1/4” NPT</td>
</tr>
<tr>
<td>14-5/8”</td>
<td>20-3/4”</td>
<td>Yes</td>
<td>9.186</td>
<td>13.69</td>
<td>1/4” NPT</td>
<td></td>
</tr>
</tbody>
</table>

Hydraulic Spreader, 1-ton Capacity
This hydraulic spreader is rated at a full 1-ton capacity at 10,000 PSI and that’s enough for a wide variety of jobs. Working in tight spots is no problem—it needs only a 9/16” clearance to engage the jaws. With a big 4” spread, it’s ready for a variety of applications: straightening work, removing dents and creases from sheet metal, or as a clamp. The device’s spring-return jaws are made of high-strength alloy steel. It can be dead-ended at 4” spread under full load. Ideally suited to work with No. 4012 hand pump (not included).

4085

4083C

Specifications
<table>
<thead>
<tr>
<th>Min. height</th>
<th>Max. height</th>
<th>Spring return</th>
<th>Rod end dia.</th>
<th>Max. operating Pressure</th>
<th>Oil cap. (cu. in.)</th>
<th>Oil port</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-3/8”</td>
<td>15”</td>
<td>Yes</td>
<td>8.74”</td>
<td>8.950</td>
<td>4.97</td>
<td>1/4” NPT</td>
</tr>
<tr>
<td>14-3/8”</td>
<td>21”</td>
<td>Yes</td>
<td>8.950</td>
<td>13.69</td>
<td>1/4” NPT</td>
<td></td>
</tr>
</tbody>
</table>

4082B

9110B
10-ton ram with 6” stroke and special piston rod end designed to fit most collision repair set components.

9104B
4-ton ram with 4” stroke and special piston rod end designed to fit most collision repair set components.

Specifications
<table>
<thead>
<tr>
<th>Min. height</th>
<th>Max. height</th>
<th>Spring return</th>
<th>Rod end dia.</th>
<th>Max. operating Pressure</th>
<th>Oil cap. (cu. in.)</th>
<th>Oil port</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-3/8”</td>
<td>15”</td>
<td>Yes</td>
<td>8.74”</td>
<td>8.950</td>
<td>4.97</td>
<td>1/4” NPT</td>
</tr>
<tr>
<td>14-3/8”</td>
<td>21”</td>
<td>Yes</td>
<td>8.950</td>
<td>13.69</td>
<td>1/4” NPT</td>
<td></td>
</tr>
</tbody>
</table>
Collision Repair Sets, Stinger Series 4- and 10-Ton
- Very competitively priced, yet high quality sets include single-speed hydraulic hand pump, hose, and ram.
- Components snap together for quick setups to apply pushing, spreading.
- Components include: hydraulic pump, hose, and ram; ram flat base; extension tubes (4); 1/2-ton spreader; tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

**1513B** 4-ton collision repair set. Has single speed hydraulic hand pump and ram with 4" stroke.

**1515B** 10-ton collision repair set. Has single speed hydraulic hand pump and ram with 6" stroke.

Collision Repair Sets, OTC Series 4- and 10-Ton
- We’ve matched our OTC hydraulics with versatile tooling.
- Components snap together, permitting you to apply pushing, spreading.
- Components include: hydraulic pump, hose, and ram; ram flat base; 1/2-ton hydraulic spreader; extension tubes (4); tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

**1517B** 4-ton collision repair set. Has single speed hydraulic hand pump (4000A) and ram (4082B) with 5" stroke.

**1519B** 10-ton collision repair set. Has two-speed hydraulic hand pump (4012A) and ram (4083C) with 6-1/8" stroke.

**5086** Collision Repair Set, 10-Ton
- Exert hydraulic force just where it’s needed to lift, spread, bend, or straighten. Handles the high-force jobs you face daily in trailer maintenance or other applications.
- Includes reliable components including 10-ton, 10-1/8" stroke hydraulic ram; air/hydraulic pumping unit; hydraulic hose; four snap-together extension tubes; extension tube coupling; serrated saddle; flat base; 90° wedge head; flex head; storage case.
- All set components are covered by OTC Lifetime Marathon Warranty®.
BODY SERVICE
AUTOMOTIVE SPECIALTY TOOLS

7176
4 Piece Rolling Head Pry Bar Kit
Here’s a set of tools anyone working in the trades will appreciate owning: The 7176, 4 Pc Rolling Head Pry Bar set from OTC! OTC has manufactured some of the very best pry bars in the business and these rolling head designed pry bars are no exception.
Forged, and swaged processing creates the tool, then our special thermal treating process locks in the strength you count on. Won’t bend, or break. Backed by our lifetime warranty Includes:
7162 6” Rolling Head Pry Bar
7163 12” Rolling Head Pry Bar
7164 16” Rolling Head Pry Bar
7179 21” Rolling Head Pry Bar
5801SGLV-L SmartTech Work Glove

7177
Heavy Duty Extendable Indexing Pry Bar
Designed for heavy duty uses such as positioning/repositioning engines or equipment, aligning heavy steel plates or panels, prying large heavy objects such as decking, grates, covers and general movement of obstructions. The combination extendable reach and pivoting head permits access to many jobs where traditional pry bars may be limited. The prying head is 13/16” wide and can be extended from 34” to 53” using 31 preset positions set in 5/8” increments. Extension and indexing adjustments are done with separate oversized pins allowing length and angle adjustments to be made quickly.
Optimal loading of 1500 lbs. to 2200 lbs. is made possible by the bar’s heavy duty 13/16” steel bar and 1-3/8” tubular extension. Knurling has been added at the base of the handle for a strong, secure grip. A must have tool for the next time you need serious leverage for service and maintenance in industry, automotive, construction, agriculture, rigging, or any heavy duty vocational application. Covered by the OTC Limited Lifetime Warranty.

7179
21-Inch Rolling Head Pry Bar
The OTC 7179 is a 3/4” bar featuring an upset rolling head on one end and an alignment drift on the other. Made in USA and Lifetime Warranty

7703
Slide Hammer Puller, Ten-Pound
This heavy-duty slide hammer puller gets tough with those really stuck parts. It has all the features of our smaller versions – heat treated, 24” long, and a 5/8”–18 threaded end to adapt to any of OTC’s pulling attachments. The difference is the ten-pound hammer that gives you the extra muscle for really stubborn pulling jobs.

8203L
3-piece Long Handled Pry Bar Set
A set of 3 made-in-the-USA pry bars with comfortable, sturdy rubberized grips. Each bar is drop-forged in Minnesota with a hand-ground chisel end for wedging into tight spaces. Special tempered steel provides extra strength, durability and leverage for tough jobs. A dedicated striking cap provides a big target to drive the pry bar in to help separate components faster. Includes lifetime warranty.
8224 24” handled pry bar
8236 36” handled pry bar
8248 48” handled pry bar

8203S
3-Piece Short Handled Pry Bar Set
A 3-piece Handled Pry Bar Set that includes 8”, 12” and 18” lengths for moving or separating components with maximum leverage. Each bar is made from tempered square steel for durability and strength. The dual durometer handle provides a comfortable and secure grip, reducing hand fatigue. A black chrome striking cap will take hammer blows without handle damage, and a polished tip and black oxide finish resists rust and wear during use. Covered by OTC’s Lifetime Warranty.
8208 8” handled pry bar
8212 12” handled pry bar
8218 18” handled pry bar

Basic Slide Hammer Units
May be used with an OTC internal pulling attachment (page 127), or with internal or external-internal threaded adapters (page 125).
1155 Slide hammer unit is 24” long with a 5 lb. hammer, 5/8”–18 threaded end.
1156 Slide hammer unit is 24” long with a 2-1/2 lb. hammer, 5/8”–18 threaded end.

1155
18" Indexing Pry Bar Set, 3-piece
• Sizes 10”, 12” and 15”.
• Indexible to 180° for better access.
• 14 locking positions for leverage in multiple applications.
• Knurled handle assures a sure grip.
• Meets or exceeds ANSI specifications for pry bars.
7172 10” Indexing Pry Bar
7173 12” Indexing Pry Bar
7174 15” Indexing Pry Bar
BODY SERVICE

AUTOMOTIVE SPECIALTY TOOLS

EASILY REMOVE HOSES, CLIPS, WASHERS AND GASKETS

8260M
Short Pick, Long Pick and Hook Set (14-piece)
- Combines 8260, 8262 and 8263 sets.
- Packaged in molded trays which can be placed in tool drawer.

8263
Long Pick and Hook Set (4-piece)
- Consisting of four (4), 6.5”, soft-handled picks.
- They are sturdy, with both stainless steel shafts and tips, with assorted tip shapes designed for marking, removing o-rings, accessing snap ring and other assorted applications.
- Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
- Multi-use tools to scribe, align piece, clean or remove o-rings, shaft seals, cv boot and motorcycle fork seals and dust hoods.
- Packaged in a molded tray which can be placed in tool drawer.

4515
Mini Pick and Hook Set – 4-piece
- Sturdy stainless steel points and shafts designed for marking, removing o-rings, accessing snap rings, and performing other tasks. Assorted angle tips allow you to reach awkward locations.
- Knurled shaft design enhances finger control for delicate jobs.

8260
Hose Removal Set, 6-piece
- Consisting of six (6) hose removal tools which consists of three (3) 10”, soft-handled tools and three (3) 15”, soft-handled tools, each with a hard end-cap.
- They are made of heat-treated, chrome steel with assorted tip shapes.
- Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
- Hose removal tools can also be used on upper and lower radiator hoses, clips, washers, gaskets and other items.
- Packaged in a molded tray which can be placed in tool drawer.

7575
Ford Radio Removal Tool Kit
These dual-purpose tools release the retaining clips of a radio faceplate so you can pull the radio from the instrument panel. For use on 1987 to current Mustang; 1988 and newer Tempo/Topaz; 1989 to current Lincoln Continental; 1990 to current Taurus/Sable; Ranger/Bronco II; Probe; Lincoln Town Car; Mark VII; Crown Victoria/Grand Marquis; Thunderbird/Cougar, F-series pickups and E-series vans; 1991 to current Explorer; 1995 to 2003 Windstar.

Similar to Ford T87P-19061-A, 415-001

4711
Deluxe Radio and Antenna Service Kit
- Eleven-piece kit in molded case.
- Universal antenna wrench.
- Ford radio removal tool.
- Deep sockets to remove and install the tamper-proof radio nuts from many GM, Chrysler, and other aftermarket radios.
- Antenna nut sockets cover most import and domestic antenna nuts.

4712
Euro Radio Removal Tool Kit
- Includes the popular tools needed to remove the radio from the dash on the following European vehicles: BMW, VW, Audi, and Mercedes-Benz.
- Easily removes the radio without damaging the radio or the dash panel.

4715
Deluxe European Radio Tool Set
- 18-piece set of tools used to remove radios on most European vehicles sold in the U.S. and Europe.
- Quickly and easily removes the radio from the dash without damage to the radio or dash.

Replacement Parts

4715-1 Removal Keys (4 pieces) Audi, Becker, Mercedes-Benz, VW.
4715-2 Removal Keys (2 pieces) Becker, Mercedes-Benz, Porsche.
4715-3 Removal Keys (2 pieces) Skoda.
4715-4 Removal Keys (2 pieces) Becker.
4715-5 Penton Wrench BMW.
4715-6 Bent U-hook (2 pieces) Blaupunkt.
4715-7 U-hook (2 pieces) Audi, Blaupunkt, Ford, Grundig, VW.
4715-8 Allen Hex Wrench BMW, Opel.
BODY SERVICE
AUTOMOTIVE SPECIALTY TOOLS

OTC BFH HAMMERS

- Indestructible handle - never needs replacement!
- Ergonomic rubber grip handle reinforced with steel bars resists breaking while absorbing impact and vibration.
- Drop-forged head is induction-hardened for long life, and contains steel locking plates that are specially bonded to ensure the head never becomes loose.

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Club/Hand Drill Hammer, Indestructible Handle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5791ID-312</td>
<td>2.5 lbs.</td>
<td>12”</td>
<td>4 lbs.</td>
</tr>
<tr>
<td>5791ID-412</td>
<td>4 lbs.</td>
<td>12”</td>
<td>5.1 lbs.</td>
</tr>
<tr>
<td>5791ID-416</td>
<td>4 lbs.</td>
<td>16”</td>
<td>5.5 lbs.</td>
</tr>
<tr>
<td>Cross Peen Hammer, Indestructible Handle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5792ID-216</td>
<td>2 lbs.</td>
<td>16”</td>
<td>4.5 lbs.</td>
</tr>
<tr>
<td>5792ID-316</td>
<td>3 lbs.</td>
<td>16”</td>
<td>5.4 lbs.</td>
</tr>
<tr>
<td>Ball Peen Hammer, Indestructible Handle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5793ID-2414</td>
<td>24 oz.</td>
<td>14”</td>
<td>2.6 lbs.</td>
</tr>
<tr>
<td>5793ID-3214</td>
<td>32 oz.</td>
<td>14”</td>
<td>3.0 lbs.</td>
</tr>
</tbody>
</table>

5791ID-412
5792ID-216
5793ID-2414

5912 Crimpwell™ Angled Crimping Pliers
- Universal crimping design accommodates soft wire – solid or stranded – 10-22 AWG.
- Cutting feature included for quicker preparation.
- 9” (228mm) in length, with protective grips to increase leverage and secure crimp.
- Angled design keeps the connector, the wire, and the crimper “in-line” – improving visibility and access in hard to reach places.
- Designed to not pierce connector insulation and also works on un-insulated connectors.
- Service tech can use as much force as desired to ensure connection and it will not damage connector insulation.
- Easy-to-use: Simply insert the connector into the crimping feature, slip over the connector and squeeze.

5950K CrimPro™ 4-in-1 Wire Service Set
CrimPro™ 4-in-1 Wire Service Set includes both the OTC 5950S CrimPro™ 4-in-1 Wire Tool and OTC 5950A CrimPro™ 4-in-1 Angled Wire Tool.

5950S
- Compact 7-inch design used 4 ways.
- Gripping nose – to pull, twist, bend, and shape.
- Crimper - crimps 12-20 AWG insulated and non-insulated wire.
- Stripper - strips 12-20 AWG wire.
- Cutter - ability to make cuts below pivot.

5950A
- The angled feature allows access to close quarters and facilitates superior crimps.
- Compact 7-inch design used 4 ways.
- Gripping nose – to pull, twist, bend, and shape.
- Crimper - crimps 12-20 AWG insulated and non-insulated wire.
- Stripper - strips 12-20 AWG wire.
- Cutter - ability to make cuts below pivot.

4467 Automatic Wire Stripper
- Quick removal of insulation on wire AWG 12-20.
- Comes with adjustable depth gauge (8mm to 12mm).
- Sharp v-shaped tooth easily removes insulation without any damage to soft wire strands.
- Cutting tool stored below the stripper.
- Features a space saving locking mechanism for pockets or tool drawer storage.

4468 Self Adjusting Wire Stripper, 9"
- Strips insulating sheathing from wires ranging from 10 ga. to 22 ga.
- Easy-to-use, just insert wire and squeeze.
- Also cuts and crimps.
### FASTENER SERVICE

**AUTOMOTIVE SPECIALTY TOOLS**

**6100**

**Standard TORX® Socket Set**

- T10 to T60 (12-piece)
- Set includes one each of the following:
  - T6 to T30
  - T40 to T45
  - T50 to T55
  - T60 to T70

**5900A-PLUS**

**Master TORX® Socket Set**

- 52-piece, professional socket set in a blow-molded case.
- Hundreds of applications from front to rear on cars and trucks:
  - Seat belt bolts
  - Interior and exterior trim screws
  - Engine assemblies
  - Tail lamp lenses & assemblies
  - Bumpers
  - Headlight bezels
  - Door strikers & latches
  - Brake rotor bolts
  - GM front-wheel drive front wheel bearings
  - Truck box liners

- Styles available: TORX bit sockets, TORX PLUS bits sockets, tamper-resistant TORX bits, and TORX sockets for external bolts.
- Made from superior S2 steel to meet or exceed torque specifications.
- Includes free 5932-24 external TORX plus.

### Torx Socket Set Includes:

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>Sq. Drive</th>
<th>Part No.</th>
<th>Size</th>
<th>Sq. Drive</th>
<th>Part No.</th>
<th>Size</th>
<th>Sq. Drive</th>
<th>Part No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5906</td>
<td>T6</td>
<td>1/4&quot;</td>
<td>5918</td>
<td>TP8</td>
<td>1/4&quot;</td>
<td>5934</td>
<td>E4</td>
<td>1/4&quot;</td>
<td>5919</td>
<td>TT8</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5908</td>
<td>T8</td>
<td>1/4&quot;</td>
<td>6181</td>
<td>TP10</td>
<td>1/4&quot;</td>
<td>5935</td>
<td>E5</td>
<td>1/4&quot;</td>
<td>5920</td>
<td>TT10</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6101</td>
<td>T10</td>
<td>1/4&quot;</td>
<td>6182</td>
<td>TP15</td>
<td>1/4&quot;</td>
<td>6151</td>
<td>E6</td>
<td>1/4&quot;</td>
<td>5921</td>
<td>TT15</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6102</td>
<td>T15</td>
<td>1/4&quot;</td>
<td>6183</td>
<td>TP20</td>
<td>1/4&quot;</td>
<td>6152</td>
<td>E7</td>
<td>1/4&quot;</td>
<td>5922</td>
<td>TT20</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6103</td>
<td>T20</td>
<td>1/4&quot;</td>
<td>6184</td>
<td>TP25</td>
<td>1/4&quot;</td>
<td>6153</td>
<td>E8</td>
<td>1/4&quot;</td>
<td>5923</td>
<td>TT25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6104</td>
<td>T25</td>
<td>1/4&quot;</td>
<td>6185</td>
<td>TP27</td>
<td>1/4&quot;</td>
<td>6154</td>
<td>E10</td>
<td>3/8&quot;</td>
<td>5924</td>
<td>TT27</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6105</td>
<td>T27</td>
<td>1/4&quot;</td>
<td>6186</td>
<td>TP30</td>
<td>1/4&quot;</td>
<td>6155</td>
<td>E12</td>
<td>3/8&quot;</td>
<td>5925</td>
<td>TT30</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6106</td>
<td>T30</td>
<td>1/4&quot;</td>
<td>6187</td>
<td>TP40</td>
<td>3/8&quot;</td>
<td>6156</td>
<td>E14</td>
<td>3/8&quot;</td>
<td>5926</td>
<td>TT40</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6107</td>
<td>T40</td>
<td>3/8&quot;</td>
<td>6188</td>
<td>TP45</td>
<td>3/8&quot;</td>
<td>6157</td>
<td>E16</td>
<td>3/8&quot;</td>
<td>5927</td>
<td>TT45</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6108</td>
<td>T45</td>
<td>3/8&quot;</td>
<td>6191</td>
<td>TP50</td>
<td>3/8&quot;</td>
<td>5936</td>
<td>E18</td>
<td>1/2&quot;</td>
<td>5928</td>
<td>TT50</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6109</td>
<td>T47</td>
<td>3/8&quot;</td>
<td>6192</td>
<td>TP55</td>
<td>3/8&quot;</td>
<td>5937</td>
<td>E20</td>
<td>1/2&quot;</td>
<td>5929</td>
<td>TT55</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6110</td>
<td>T50</td>
<td>3/8&quot;</td>
<td>6193</td>
<td>TP60</td>
<td>1/2&quot;</td>
<td>5938</td>
<td>E22</td>
<td>1/2&quot;</td>
<td>5930</td>
<td>TT60</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>6111</td>
<td>T55</td>
<td>3/8&quot;</td>
<td>6194</td>
<td>TP70</td>
<td>1/2&quot;</td>
<td>5939</td>
<td>E24</td>
<td>1/2&quot;</td>
<td>6198</td>
<td>T70</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>6112</td>
<td>T60</td>
<td>1/2&quot;</td>
<td>6199</td>
<td>T80</td>
<td>1/2&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**6145**

**Tamper-Resistant TORX® Socket Set (7-piece)**

- Set includes one each of the following:
  - TT6 to TT30
  - TT40 to TT55
  - TT60 to TT70
### FASTENER SERVICE

#### AUTOMOTIVE SPECIALTY TOOLS

**6160 Fraction Hex Socket Set (7-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6161</td>
<td>1/8&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6162</td>
<td>5/32&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6163</td>
<td>3/16&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6164</td>
<td>7/32&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6165</td>
<td>1/4&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6166</td>
<td>5/16&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6167</td>
<td>3/8&quot;</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**6170 Metric Hex Socket Set (7-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6171</td>
<td>3 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6172</td>
<td>4 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6173</td>
<td>5 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6174</td>
<td>6 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6175</td>
<td>7 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6176</td>
<td>8 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6177</td>
<td>10 mm</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**6150 External TORX® Socket Set (7-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6151</td>
<td>E6 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6152</td>
<td>E7 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6153</td>
<td>E8 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6154</td>
<td>E10 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6155</td>
<td>E12 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6156</td>
<td>E14 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6157</td>
<td>E16 x 32</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**5905 Tamper-Resistant TORX® Plus Socket Set (11-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5905-8</td>
<td>8IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-10</td>
<td>10IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-15</td>
<td>15IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-20</td>
<td>20IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-25</td>
<td>25IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-27</td>
<td>27IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-30</td>
<td>30IPR</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5905-40</td>
<td>40IPR</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5905-45</td>
<td>45IPR</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5905-50</td>
<td>50IPR</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5905-55</td>
<td>55IPR</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**5931 External Torx® Plus Socket Set (8-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5931-6</td>
<td>6EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-7</td>
<td>7EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-8</td>
<td>8EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-10</td>
<td>10EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-11</td>
<td>11EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-12</td>
<td>12EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-14</td>
<td>14EP</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5931-16</td>
<td>16EP</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**5942 XZN Super Short Socket Bit Set (8-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5942-4</td>
<td>SP4</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5942-5</td>
<td>SP5</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5942-6</td>
<td>SP6</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5942-8</td>
<td>SP8</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>5942-10</td>
<td>SP10</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5942-12</td>
<td>SP12</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5942-14</td>
<td>SP14</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5942-16</td>
<td>SP16</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**5933 MortorQ® Super Bit Set (5-piece)**
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5933-0</td>
<td>MTS0</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-1</td>
<td>MTS1</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-2</td>
<td>MTS2</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-3</td>
<td>MTS3</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-4</td>
<td>MTS4</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

**5940 BMW Head Bolt Socket**
- Socket is designed to fit in the cylinder head on M42 and M50 engines to remove and install cylinder head bolts.
- Spring loaded detent ball holds bolt in place.
- Works with 1/2 inch ratchet, breaker bar, or torque wrench. Socket size is E12 for external TORX® bolts.

**4651 Screw Extractor Set**
- Removes broken studs and bolts.
- Includes ten guide bushings, five drill bits and five screw extractors with extractor nuts.
- Drill bits are left handed to help removal. Similar to Toyota No. 09045-50080

**6022 Toyota Head Bolt Socket**
- Specially designed socket is needed to tighten or loosen head bolts on Toyota Paseo vehicles with 3S-GE and 3S-FE engines.
- 8 mm socket features a 12-point, 1/2” drive socket.
5943
9-Piece Power Driver Socket Extensions
The new 5943, 9 piece Power Driver Socket Extension set from OTC adds versatility to your existing power tools and socket sets. Each extension uses a 1/4” hex shank for adjustable chuck drills with 1/4”, 3/8” or 1/2” square drive on the other end for sockets. 3 square drive sizes - 1/4”, 3/8” and 1/2” and 3 lengths for each - 2”, 6” and 12”. Now use your sockets with your cordless power tools for short, medium and long reach applications. The 5943 is a great choice for running up multiple bolts like oil and transmission pans or rear ends instead of ratcheting each one by hand. Save your time for proper torquing instead of hand turning your bolts. Limited lifetime warranty.

5943-1 Three 1/2” square drive socket extensions in 2”, 6” and 12” lengths
5943-2 Three 3/8” square drive socket extensions in 2”, 6” and 12” lengths
5943-3 Three 1/4” square drive socket extensions in 2”, 6” and 12” lengths

6982DGS
Drilling Guide System
- Drill perfectly centered holes in broken studs.
- Anchor rail guide on any open hole within reach of broken stud - 6 inch reach.
- 4 bushings for common stud sizes - 6mm, 8mm, 10mm, and 12mm.
- 4 drilling guides for progressive drilling - 1/16”, 3/32”, 1/8” and 5/32”.
- Conveniently stores in vinyl pouch - includes instructions.
- Made in USA with a Lifetime Warranty.

6982DGS-1 4-Pc Bushing Set
6982DGS-2 4-Pc Guide Set
6982DGS-3 Replacement Rail

6982DEX
3 Pc Double Edge Screw Extractors
- For unscrewing broken bolts and screws without damaging threads.
- Can be turned in clockwise or counter clockwise direction for right and left handed threads.
- Drive extractor into drill hole for secure fit.
- Hex shank design works with standard hex sockets eliminating rounded corners.
- Industrial Quality - Made from High Strength Steel - Tapered Flute design.

6982DEX-1 No. 1 Dual Edge Screw Extractor (#10 - 1/4”)
6982DEX-2 No. 2 Dual Edge Screw Extractor (5/16” - 3/8”)
6982DEX-3 No. 3 Dual Edge Screw Extractor (7/16” - 1/2”)

6982ACP
Automatic Center Punch
- Accurately marks your drill point every time.
- Creates deep center mark to prevent drill bit from wandering.
- Flared top fits comfortably in palm of hand.
- Allows free hand to place marking tip exactly where you want it.
- Press tool until spring releases causing tip to mark your drilling point.
Impact Drivers
• Loosens hard-to-turn screws, bolts or nuts.
• Handle design prevents possibility of hitting hand with hammer when striking impact driver.
• Bit holder has 3/8” drive (No. 4608), 1/2” (No. 4607) drive, and 5/16” hex for Phillips and flat screwdriver bits.
• Includes eight screwdriver bits:
  No. 2 Phillips bit, 1-3/8” long with 5/16” hex
  No. 3 Phillips bit, 1-3/8” long with 5/16” hex
  No. 4 Phillips bit, 1-3/8” long with 5/16” hex
  No. 5 Phillips bit, 1-3/8” long with 5/16” hex

4614 Side Terminal Battery Wrench
• Designed for use on GM side-terminal batteries, or any 5/16” hex head battery bolt.
  • 5/16”, 6 point, box end, 5-1/2” long, ratcheting wrench; insulated handle.

4615 Long-Side Terminal Battery Wrench
• Designed for use on GM side-terminal batteries, or any 5/16” hex head battery bolt.
  • Long handle allows access to hard-to-reach battery terminal bolts.
  • 5/16”, 6 point, box end, 10” long, ratcheting wrench; insulated handle.

4576 Universal C-Frame Nut Splitter
• Forged and heat-treated frame with offset handle works where ordinary nut splitters may fail. Smooth action cracks nuts without damaging bolt threads.
• Chisel rotates to line up parallel to bolt. Splits non-heat-treated nuts of 7/16” (11 mm) through 3/4” (19 mm) diameter. Tool is 6-3/4” in length.

4616 Battery Terminal Wrench – 10mm
• Designed for use on 10 mm battery terminal bolts found on many import and domestic vehicles.
  • 10 mm, 12 pt., box-end ratcheting wrench; 5-1/2” long with insulated handle.

4791 Spanner Wrench, 3/4” - 2”
This chrome vanadium hardened steel wrench features a 5” handle and slim strong hook to access slotted retaining rings in hard to reach areas.

4792 Spanner Wrench, 2” - 4 3/4”
This chrome vanadium hardened steel wrench features a 9” handle and slim strong hook to access slotted retaining rings in hard to reach areas.

216884 Standard die set. Includes 6 dies, threads per inch - 4, 5, 6, 7, 7-1/2, 8, 9, 10, 11, 11-1/2, 12, 14, 16, 18, 20, and 24.

202817 Metric die set. Includes three dies:
  1 mm - 1.25 mm - 1.5 mm - 1.75 mm
  2 mm - 2.5 mm - 3.0 mm - 3.5 mm
  4 mm pitch dies.

206803 V-pad.

885 Adjustable Hook Spanner Wrench
Here’s a tool that’s needed wherever turret adjusting nuts or packing gland nuts are used.
  • Capacity is 1-1/2” to 4”.
  • Handle is 24” long, 15/16” diameter.

7307 Spanner wrench with one 3/8” thick jaw.
7308 Spanner wrench with two interchangeable jaws: one 3/8” thick, one 3/4” thick.

7309 Heavy-Duty Adjustable Hook Spanner Wrench
Some jobs require beefier tools. Here’s a wrench to fill that need. It’s drop-forged and features extra heavy construction and a 3/4” thick, 11-position hook jaw that’s capable of gripping fasteners from 4-3/4” to 12-3/4” O.D.
  • Handle is 25-3/4” long and 15/16” in diameter.

7402 Universal Outside Thread Chaser
Quickly restore threads to near new condition without expensive thread cutting equipment.
• Replaceable V-Pads and dies. Use for 1-1/4” to 5” O.D.
• Includes Standard Die Set 216884.
• Metric size dies available 202817, must be purchased separately.

206803 V-pad.

Fed. Spec.: GGG-W-665b

7308
Fed. Spec.: GGG-W-665b

6719-1 Locking Pliers
10” straight locking pliers
Accutorq™ Clikker Torque Wrenches

These precision torque wrenches make a loud click when you’ve reached the torque setting. They feature ratcheting heads, all-metal construction, permanently roll-marked scales, and soft-grip rubber handles that enable you to firmly grasp the wrench for right- or left-hand torquing.

- Includes molded plastic case.
- One-year warranty.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Torque Range</th>
<th>Graduations</th>
<th>Square Drive</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7375</td>
<td>100–1000 in.-lb (11–113 N•m)</td>
<td>10 in.-lb</td>
<td>3/8”</td>
<td>15-1/8”</td>
</tr>
<tr>
<td>7377</td>
<td>10–150 ft.-lb (14–203 N•m)</td>
<td>2 ft.-lb</td>
<td>1/2”</td>
<td>17-3/4”</td>
</tr>
<tr>
<td>7378</td>
<td>25–250 ft.-lb (34–339 N•m)</td>
<td>2 ft.-lb</td>
<td>1/2”</td>
<td>19-3/8”</td>
</tr>
<tr>
<td>7379</td>
<td>100–600 ft.-lb (136–813 N•m)</td>
<td>10 ft.-lb</td>
<td>3/4”</td>
<td>42-1/4”</td>
</tr>
</tbody>
</table>

4554 Torque Angle Gauge

- Required when servicing many late model engines that use torque-to-yield fasteners. Measures angle of rotation after pre-torque in torque-angle applications.
- The 360° scale is marked in 2° increments and intervals of 10° and 30°; easily zeroed for next application by turning the tool housing.
- Has 1/2” male and female square drives.

7367 Torque Multiplier, 1100 ft-lb

- Drive Input: 1/2”, 365 lb-ft Max
- Drive Output: 3/4”, 1100 lb-ft Max
- Head Width: 2.9”, 3.3:1 Ratio
- Reaction Bar: 13-3/4”
- Includes reaction foot.
- Note: frictional gear loss = 6%

7368 Torque Multiplier, 2200 lb-ft

- Drive Input: 3/4”, 730 lb-ft Max
- Drive Output: 1”, 2200 lb-ft Max
- Head Width: 3.6”, 3.3:1 Ratio
- Reaction Bar: 15-5/8”
- Includes reaction foot.
- Note: frictional gear loss = 6%

5776 Preset Torque Wrench Set

These color coded click torque wrenches are pre-set to the most common lug nut torque settings, making them perfect for tire shops. Highly durable design can hold up to the toughest tire shop demands.

- No need for adjustments
- Durable satin finish
- 1/2” Drive, 36 tooth
- Quick release ratchet head
- Perfect for Wheel / Tire shop
- Accuracy better than ±3% CW

Sold Individually:

- 5776-1 Preset Torque Wrench, 1/2” 65 lb-ft
- 5776-2 Preset Torque Wrench, 1/2” 80 lb-ft
- 5776-3 Preset Torque Wrench, 1/2” 100 lb-ft
- 5776-4 Preset Torque Wrench, 1/2” 120 lb-ft
- 5776-5 Preset Torque Wrench, 1/2” 140 lb-ft

7380-E150 Digital Torque Wrench

- Displays torque in real time and at peak when torque is released.
- Torque value accuracy is ±1% clockwise (CW) and counterclockwise (CCW) from 10%–100% of full scale.
- Can be used to measure bearing preload torque values.
- Display starts at 1% to 250% of full scale; has a 5-digit, alpha-numeric LCD, and indicator icons for functions, units and battery.
- Indicators include green, yellow and red LED light, an audible buzzer, and vibration.
- 1/4” Drive, 36 tooth ratchet head. Range 1.5 – 150 In-Lb.
FASTENER SERVICE
AUTOMOTIVE SPECIALTY TOOLS

Giant Adjustable Wrenches
The really big jobs call for really big tools. These wrenches will handle 42 bolt sizes from 1-3/8” to 4-3/4”. Together, both wrenches weigh just 41 lbs., but can replace over 1,000 lbs. of fixed-size wrenches.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Nut / Bolt Size</th>
<th>Increments of Jaw Adjustment</th>
<th>Lgth.</th>
<th>Head Thickness</th>
<th>Wt. (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7640</td>
<td>1-3/8” to 2-7/8”</td>
<td>1/8”</td>
<td>24”</td>
<td>7/8”</td>
<td>10.6</td>
</tr>
<tr>
<td>7641</td>
<td>2-3/4” to 4-3/4”</td>
<td>1/8”</td>
<td>36”</td>
<td>1-1/8”</td>
<td>30.3</td>
</tr>
</tbody>
</table>

6969 Ratcheting Chain Wrench – 24”
- Ratcheting action makes it possible to re-grip without removing wrench.
- Handles parts of most any shape... round, square, hexagon, or octagon.
- Handle is 24” long; chain grips objects ranging from 3” to 6-1/2” O.D.

516942 Replacement chain

6968 Ratcheting Chain Wrench – 12”
- Works on many different-shaped objects, such as square, round, hexagon, oval, etc.
- Handle is 12” long; chain grips objects ranging from 1/2” to 4-1/2” O.D.

516941 Replacement chain

Ratcheting Chain Wrench
This multi-purpose tool will grip parts of nearly any shape. It features a ratcheting head design that lets you turn in either direction without removing wrench from the work.
- 13” handle with capacity from 1/2” to 4-3/4” O.D.

209199 Replacement chain

Multipurpose Strap Wrench
This strap style universal wrench features a 9” drop forged handle and 23” leather strap for excellent grip on diameters up to 7”. The milled foot increases grip on the strap and pulley as handle force is increased.

4804 Heavy Duty Pulley Holder

7400 Ratcheting Chain Wrench
This multi-purpose tool will grip parts of nearly any shape. It features a ratcheting head design that lets you turn in either direction without removing wrench from the work.
- 13” handle with capacity from 1/2” to 4-3/4” O.D.

305085 Replacement chain

6969 Ratcheting Chain Wrench – 24”
- Ratcheting action makes it possible to re-grip without removing wrench.
- Handles parts of most any shape... round, square, hexagon, or octagon.
- Handle is 24” long; chain grips objects ranging from 3” to 6-1/2” O.D.

516942 Replacement chain

Giant Adjustable Wrenches
Rated to withstand 2,000 ft. lbs. of torque.

7640 Giant adjustable wrench. Rated to withstand 2,000 ft. lbs. of torque.
7641 Giant adjustable wrench. Rated to withstand 5,000 ft. lbs. of torque.

7206 Multipurpose Strap Wrench
You’ll find many uses for this heavy-duty strap wrench. The 53” long nylon strap won’t mar precision surfaces of shafts, pulleys, or other components. Useful on engine, transmission, and drive pulleys up to 16 inches. Special head design self-tightens the strap as force is applied to the lightweight, 12” long handle.

305085 Replacement chain

4804 Heavy Duty Pulley Holder

7401 Ratcheting Chain Wrench
This multi-purpose tool will grip parts of nearly any shape. It features a ratcheting head design that lets you turn in either direction without removing wrench from the work.
- 19” handle with capacity from 3” to 6-3/4” O.D.

209200 Replacement chain

SmartTech™ Technician Gloves
- Works with touchscreen technology.
- Washable synthetic leather palm with padding ensures comfort and a secure grip.
- Polyester and Lycra material around fingers offer a durable lightweight cover that stretches for a great fit.
- PVC cushions help protect knuckles from injury due to slippage.
- Comfortable polyester back panels include webbing for improved ventilation.

5801SGLV-L Large
5801SGLV-XL Extra large
4490 Magnetic Parts Tray
- Rectangular, stainless steel tray is 9-1/2” x 5-1/2” and 1-1/4” deep. Holds tools and small metal parts, so they don’t get lost or misplaced during repair work.
- Two heavy-duty magnets on bottom of tray, with non-marring contact pads, secure the tray to metal objects such as a tool box, air cleaner cover, frame rail, fender, etc.

4780 Personal Tool Pack
Includes 1/4” drive ratchet, 2” extension, 16 drive bits, and Universal Spline sockets fit both SAE 3/16” - 9/16” and metric 5mm - 14mm nuts and bolts in a variety of styles: 6 pt., 12 pt., torx, square, spline, etc. All tools included in a travel pouch.

4781 Super Stubby Screwdriver Set
These screwdrivers are perfect for those limited access fasteners typically found on carburetors or in electrical compartments and many other areas.
- 2 Phillips and 2 straight screwdrivers included in set.

4783 Flexible Magnetic/Claw Pick Up Tool
The 25” flexible spring shaft allows the tool to reach difficult areas and pick up objects either magnetically or with the use of the retractable claw.

4786 Aluminum Vice Inserts
Essential for every workbench vice. Aluminum jaws have reliefs for 5/16”, 3/8”, & 9/16” (7mm, 10mm, & 15mm) diameter shafts. Excellent for holding steel shafts without scratching or damage such as shocks, crankshafts, or any threaded bolts and shafts.

4789 Front Fork & Shock Vice
This vice is designed to hold up to 4” diameter round or oddly shaped components such as forks, shocks, pistons, rods, etc. The V shaped jaws are covered with thick rubber pads to ensure a firm grip without leaving a mark. Comes complete with a table/vice mounting bracket that allows adjustment to any position.

4794 Safety Wire Drill Guide Set, SAE & Metric Set
Here is the perfect way to drill those nuts and bolts for use with safety wire without breaking the drill bit. These guide, align, and support the hex head or the bolt threads. The hex fixture fits nuts and bolt heads up to 15/16” (24mm). The SAE fixture bar is threaded for 1/4”-20, 5/16”-18, 5/16”-24, 3/8”-18, 3/8”-24, 7/16”-14 bolts, and the Metric fixture bar covers M6x1.0mm, M8x1.0, M8x1.25mm, M10x1.25mm, M10x1.5mm, M12x1.5mm sizes.

4795 Safety Wire Twist Pliers
These versatile 8” pliers will reliably twist safety wire rapidly and consistently. The right hand twist mechanism features an automatic spring return. The forged alloy steel construction features tapered jaws for confined areas and mated cutters to cut safety wire. For use on safety wire applications found on vehicles, machinery, and aircraft.

4801 Universal Clutch Holder
Holder arms designed to fit into the external teeth of a clutch hub, but can also be used on gears and sprockets. Opens to handle a 5” OD hub.
# RETAINING RING PLIERS

Here are a variety of retaining ring pliers, available individually or in sets, to handle many applications.

## 7053K
Internal/external retaining ring pliers kit. Includes four 90° tips (.038" diameter), four 45° tips (.047" diameter), and eight straight tips (.047" and .070" diameter).

## 15702
Replacement tip kit. Contains 4 sets, 4 tips per set.

## 7123K
Convertible retaining ring pliers kit. For internal or external rings. Contains one No. 1120 (.038" diameter) and one No. 1340 (.070" diameter) straight tip pliers.

## 7125K
Convertible retaining ring pliers kit. For internal or external rings. Contains one No. 1125 (.038" diameter) and one No. 1345 (.070" diameter) 45° pliers.

## 7300
Internal, straight tip retaining ring pliers. 16" long.

## 7301
External, straight tip retaining ring pliers. 16" long.

## Replacement tips (pairs):
- **209201** For pliers Nos. 7300 and 7301.
- **222029** 45° for pliers Nos. 7300 and 7301.
- **222030** 90° for pliers Nos. 7300 and 7301.

## Ring Series No.

### INTERNAL

<table>
<thead>
<tr>
<th>Size Range (Ring Size No.)</th>
<th>Bore of Shaft Dia. Range (&quot;Inch&quot; equiv.)</th>
<th>Pliers No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 to 87</td>
<td>1/8&quot; to 7/8&quot;</td>
<td>0200</td>
</tr>
<tr>
<td>12,15,25 to 66</td>
<td>1/8&quot; to 21/32&quot;</td>
<td>1120, 1125</td>
</tr>
<tr>
<td>25 to 143</td>
<td>1/4&quot; to 1-7/16&quot;</td>
<td>7053K, 7123K, or 7125K</td>
</tr>
<tr>
<td>93 to 143</td>
<td>15/16&quot; to 1-7/16&quot;</td>
<td>1340, 1345, or 0400</td>
</tr>
<tr>
<td>31 to 75</td>
<td>5/16&quot; to 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>150 to 350</td>
<td>1-1/2&quot; to 3-1/2&quot;</td>
<td>0600</td>
</tr>
<tr>
<td>75</td>
<td>3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>354 to 650</td>
<td>3-35/64&quot; to 6-1/2&quot;</td>
<td>7301</td>
</tr>
<tr>
<td>50 to 78</td>
<td>1/2&quot; to 1&quot;</td>
<td>0200</td>
</tr>
<tr>
<td>50 to 200</td>
<td>1/2&quot; to 25/32&quot;</td>
<td>1120</td>
</tr>
<tr>
<td>106 to 200</td>
<td>1-1/16&quot; to 2&quot;</td>
<td>7053K, 7123K, or 7125K</td>
</tr>
<tr>
<td>215 to 334</td>
<td>2-1/8&quot; to 3-11/32&quot;</td>
<td>1340, 1345, or 0400</td>
</tr>
<tr>
<td>350 to 400</td>
<td>3-1/2&quot; to 4&quot;</td>
<td>0600</td>
</tr>
<tr>
<td>37 to 102</td>
<td>3/8&quot; to 1-1/32&quot;</td>
<td>0100</td>
</tr>
<tr>
<td>37 to 56</td>
<td>3/8&quot; to 9/16&quot;</td>
<td>1120, 1125</td>
</tr>
<tr>
<td>37 to 200</td>
<td>3/8&quot; to 1-3/4&quot;</td>
<td>7053K, 7123K, or 7125K</td>
</tr>
<tr>
<td>106 to 175</td>
<td>1-1/16&quot; to 1-3/4&quot;</td>
<td>1340, 0300</td>
</tr>
<tr>
<td>181 to 300</td>
<td>1-13/16&quot; to 3-1/2&quot;</td>
<td>0500</td>
</tr>
<tr>
<td>306 to 625</td>
<td>3-1/16&quot; to 6-1/4&quot;</td>
<td>7300</td>
</tr>
<tr>
<td>75 to 137</td>
<td>3/4&quot; to 1-3/8&quot;</td>
<td>0100</td>
</tr>
<tr>
<td>75 to 100</td>
<td>3/4&quot; to 1&quot;</td>
<td>1120, 1125</td>
</tr>
<tr>
<td>75 to 200</td>
<td>3/4&quot; to 2&quot;</td>
<td>7053K, 7123K, or 7125K</td>
</tr>
<tr>
<td>143 to 200</td>
<td>1-7/16&quot; to 2&quot;</td>
<td>1340, 1345, or 0300</td>
</tr>
<tr>
<td>206 to 300</td>
<td>2-1/16&quot; to 3&quot;</td>
<td>0500</td>
</tr>
<tr>
<td>315 to 400</td>
<td>3-5/32&quot; to 4&quot;</td>
<td>7300</td>
</tr>
</tbody>
</table>

## How to select the correct pliers:
1. If ring number is known, locate ring number in chart — pliers are listed in right-hand column.
2. Or, measure diameter of shaft bore and locate size in chart — pliers are in right-hand column.
PLIERS & CUTTERS
AUTOMOTIVE SPECIALTY TOOLS

4513
Heavy-Duty Snap Ring Pliers Set (2 piece)
- Heat treated steel “circlip” pliers for large equipment repair.
- Replaceable tips and spring ratchet locking mechanism to securely hold against snap ring tension.
- Internal pliers’ capacity 3-1/16” to 6-1/4” (78 mm to 159 mm) snap rings.
- External pliers’ capacity 3-1/2” to 6-1/2” (89 mm to 165 mm) snap rings.
- Blow-molded storage case includes extra sets of replaceable tips.
- Overall length 16”; handle length 12-1/2”.

4514
Mini Snap Ring Pliers Set, 4-piece
Service S-ring and R-ring clips, internal or external, straight or angled. Ruggedly built of heat-treated chrome molybdenum steel.
- Set includes two internal snap ring pliers (one straight, one 45°) and two external snap right pliers (one straight, one 45°).
- All pliers have .038” (1.0mm) diameter tips.
- Overall length 3”; handle length 2”.

5000
.070” tip diameter straight for removing external rings.

7295
Retaining Ring Pliers
The “squeeze-lock” ratchet action of this tool locks retaining rings in position, making removal and installation easy. It features cushioned handles to ensure a secure grip.
- Will handle rings 3/16” thick and up to 4” in diameter.
- Pliers is 12” long.

211051
Two replacement tips.

7412K
Retaining Ring Pliers Set
This set includes 12 of our most popular retaining ring pliers, in sizes for automotive applications. Tips include straight, 45°, and 90° angles in four different sizes (.038, .047, .070, and .090” diameter).
- Includes a sturdy plastic organizer box.

4512-1
.090” tip, straight pliers
4512-2
.090” tip, 90° pliers
4512-3
.070” tip, straight pliers
4512-4
.070” tip, 90° pliers
4512-5
.047” tip, straight pliers
4512-6
.047” tip, 90° pliers
4512-7
.038” tip, straight pliers
4512-8
.038” tip, 90° pliers
4512-9
straight tip pick
4512-10
90° tip pick

All items can be purchased separately.
PLIERS & CUTTERS
AUTOMOTIVE SPECIALTY TOOLS

4411
Ratcheting Hose & PVC Cutter (Standard)
• Cuts hose and PVC up to 1-3/8" dia.
• Features metal frame and ergonomic handles for high leverage.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4412
Ratcheting Hose & PVC Cutter (Heavy Duty)
• Cuts hose and PVC up to 1-3/4" dia.
• Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4509
Straight-Blade Hose Cutter
• Cuts rubber hoses ranging from 1/4" to 1-1/2".
• Simply place hose in tool and squeeze handle to cut.

4509-1 Replacement hose cutter blade.

4510
Hose Pinch Off Pliers Set, 3 Piece
• Shuts off flow through vacuum lines, fuel lines, coolant lines, etc.
• Cocking ratchet mechanism holds pivoting jaws tightly in place. Heavy-duty swivel jaws pivot to assure parallel pinching.

4577
3/8" Cable Cutters
Perfect choice for cutting heavier copper and aluminum cables.
• This tool is especially valuable for battery service where replacing a terminal is required.
• Clean cut with minimal mushing of wire strands.

4571
Battery Pliers
• Serrated jaws firmly grip the battery terminal nut or bolt.
• Offset handles allow access in hard-to-reach areas.
• Works on top-post and side-post battery terminals.

4593
Angle-Tip Relay Pliers
• Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
• Specially coated tips offer a solid grip on the relay.

4477
3/8" Cable Cutters
Perfect choice for cutting heavier copper and aluminum cables.
• This tool is especially valuable for battery service where replacing a terminal is required.
• Clean cut with minimal mushing of wire strands.

4613
Crimpwell™ Angled Crimping Pliers
• Universal crimping design accommodates soft wire – solid or stranded – 10-22 AWG.
• Cutting feature included for quicker preparation.
• 9" (228mm) in length, with protective grips to increase leverage and secure crimp.
• Angled design keeps the connector, the wire, and the crimpler “in-line” – improving visibility and access in hard to reach places.
• Designed to not pierce connector insulation and also works on un-insulated connectors.
• Service tech can use as much force as desired to ensure connection and it will not damage connector insulation.
• Easy-to-use: Simply insert the connector into the crimping feature, slip over the connector and squeeze.

4618
Multi-purpose Scissors
Will cut hose, wire and cables, wood dowel, PVC, and thin sheet metals in addition to general cutting. The hardened stainless steel blades have an angle ground into one that eliminates slipping when cutting round materials.

5012
Crimpwell™ Angled Crimping Pliers
• Universal crimping design accommodates soft wire – solid or stranded – 10-22 AWG.
• Cutting feature included for quicker preparation.
• 9” (228mm) in length, with protective grips to increase leverage and secure crimp.
• Angled design keeps the connector, the wire, and the crimpler “in-line” – improving visibility and access in hard to reach places.
• Designed to not pierce connector insulation and also works on un-insulated connectors.
• Service tech can use as much force as desired to ensure connection and it will not damage connector insulation.
• Easy-to-use: Simply insert the connector into the crimping feature, slip over the connector and squeeze.
**Handled Pry Bars**

Heavy-duty pry bar made of tempered square steel that you can hit without damaging the handle.
- Black chrome striking cap allows hitting the bar without damage to the handle.
- Ergonomic handle – dual durometer composite handle for user comfort, reduces hand fatigue.
- Polished tip with black oxide finish.
- Long-life finish resists rust and wear during use.
- OTC Lifetime Warranty.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7166</td>
<td>5/8&quot; diameter, 18&quot; long</td>
</tr>
<tr>
<td>7167</td>
<td>3/4&quot; diameter, 24&quot; long</td>
</tr>
<tr>
<td>7168</td>
<td>7/8&quot; diameter, 30&quot; long</td>
</tr>
<tr>
<td>7420</td>
<td>7/8&quot; diameter, 46&quot; long</td>
</tr>
</tbody>
</table>

**Jimmy Bars**

We’ve forged these bars from chrome alloy steel, then heat-treated them to resist bending and breaking.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7166</td>
<td>5/8&quot; diameter, 18&quot; long</td>
</tr>
<tr>
<td>7167</td>
<td>3/4&quot; diameter, 24&quot; long</td>
</tr>
<tr>
<td>7168</td>
<td>7/8&quot; diameter, 30&quot; long</td>
</tr>
<tr>
<td>7420</td>
<td>7/8&quot; diameter, 46&quot; long</td>
</tr>
</tbody>
</table>

**Pry Pac**

Three pry bars in one economical pack. You get 12" and 18" rolling head pry bars and a 24" jimmy bar.
- Heat-treated chrome alloy steel.

**Heavy Duty Extendable Indexing Pry Bar**

- The prying head is 13/16" wide and can be extended from 34" to 53" using 31 preset positions set in 5/8" increments.
- Extension and indexing adjustments are done with separate oversized pins allowing length and angle adjustments to be made quickly.
- Optimal loading of 1500 lbs. to 2200 lbs. is made possible by the bar’s heavy duty 13/16" steel bar and 1-3/8" tubular extension. Knurling has been added at the base of the handle for a strong, secure grip.
- OTC Lifetime Warranty.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7177</td>
<td>Indexing Pry Bar Set, 3-piece</td>
</tr>
<tr>
<td>7172</td>
<td>10&quot; Indexing Pry Bar</td>
</tr>
<tr>
<td>7173</td>
<td>12&quot; Indexing Pry Bar</td>
</tr>
<tr>
<td>7174</td>
<td>15&quot; Indexing Pry Bar</td>
</tr>
</tbody>
</table>

**Pry Bar Head**

- Turns any 3/8" drive ratchet or breaker bar into a rolling head pry bar.
- Gives you the versatility of a pry bar without the storage problems.

**Pry Bar Head**

- Includes 10 Chisel and Alignment Jimmy Bars:
  - 30" in length; 7/8" diameter.
  - Forged and chromed alloy steel.
  - Designed and heat-treated to resist bending and breaking.
  - Made in USA.
  - Lifetime warranty. The sturdy cardboard merchandiser is 52" high, 18" wide and 12" deep, specifically designed for the Jimmy Bars, is free with purchase.

**Persuader Pry Bar Merchandiser**

- Includes two 30" 7168 Jimmy Bars.
- Includes two 46" 7420 Jimmy Bars.
- Includes one 54" 7421 Jimmy Bar, covering almost any medium and heavy-duty application. The sturdy cardboard merchandiser is 64" high, 12" wide and 18" deep.

**9900A**

**MAJOR Persuaders Pry Bar Merchandiser**

- Includes two 30" 7168 Jimmy Bars.
- Includes two 46" 7420 Jimmy Bars.
- Includes one 54" 7421 Jimmy Bar, covering almost any medium and heavy-duty application. The sturdy cardboard merchandiser is 64" high, 12" wide and 18" deep.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9900A</td>
<td>Persuader Pry Bar Merchandiser</td>
</tr>
<tr>
<td>9901A</td>
<td>MAJOR Persuaders Pry Bar Merchandiser</td>
</tr>
</tbody>
</table>

**7176**

**4 PC Rolling Head Pry Bar Kit**

- Set includes 4 OTC Rolling Head Pry Bars (6", 12", 16" and 21" lengths)
- Upset head design provides optimal leverage
- Tapered end designed for hole alignment
- Proprietary thermal treatment provides superior strength and durability
- Chrome finish resists corrosion
- Comes with free pair of OTC SmartTech Gloves (Large)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7176</td>
<td>4 PC Rolling Head Pry Bar Kit</td>
</tr>
</tbody>
</table>

**7177**

**Rolling Head Pry Bars**

You’ll have a lot of leverage using one of these rolling head pry bars. The long, tapered body will also serve as an aligning drift.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7162</td>
<td>6&quot; Rolling Head Pry Bar</td>
</tr>
<tr>
<td>7163</td>
<td>12&quot; Rolling Head Pry Bar</td>
</tr>
<tr>
<td>7164</td>
<td>16&quot; Rolling Head Pry Bar</td>
</tr>
<tr>
<td>7165</td>
<td>18&quot; Rolling Head Pry Bar (not shown)</td>
</tr>
<tr>
<td>7179</td>
<td>21&quot; Rolling Head Pry Bar</td>
</tr>
</tbody>
</table>
Punch and Chisel Set

Windshield Spray Nozzle Needle

Mini Pick and Hook Set

Oil Seal Pick Set

Style Seal Puller

Hose Removal Set

Long Pick and Hook Set

Short Pick and Hook Set

Replacement blade for 4508

Pin Punch, 3/32" x 4-1/4"

Pin Punch, 1/8" x 4-3/4"

Pin Punch, 3/16" x 5-1/4"

10

Taper Punch, 3/16" x 6-1/4"

4

Cold Chisel, 1/2" x 6"

Taper Punch, 5/32" x 6"

Taper Punch, 1/8" x 5-3/4"

Center Punch, 3/16" x 8"

Taper Punch, 3/32" x 5-1/4"

Pin Punch, 1/4" x 5-3/4"

Cold Chisel, 5/8" x 6-1/2"

Pin Punch, 5/32" x 5"

Center Punch, 1/8" x 5"

Chisel Gauge

Cold Chisel, 3/8" x 5-1/2"

4515

Mini Pick and Hook Set, 4-piece

Sturdy stainless steel points and shafts designed for marking, removing o-rings, accessing snap rings, and performing other tasks. Assorted angle tips allow you to reach awkward locations.

Knurled shaft design enhances finger control for delicate jobs.

8260M

Short Pick, Long Pick and Hook Set, 14-piece

Combines 8260, 8262 and 8263 sets.

Packaged in molded trays which can be placed in tool drawer.

8260

Hose Removal Set, 6-piece

Consisting of six (6) hose removal tools which consists of three (3) 10", soft-handled tools and three (3) 15", soft-handled tools, each with a hard end-cap.

They are made of heat-treated, chrome steel with assorted tip shapes.

Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.

Hose removal tools can also be used on upper and lower radiator hoses, clips, washers, gaskets and other items.

Packaged in a molded tray which can be placed in tool drawer.

8262

Short Pick and Hook Set, 4-piece

Consisting of four (4), 6.5", soft-handled picks.

They are sturdy, with both stainless steel shafts and tips, with assorted tip shapes designed for marking, removing o-rings, accessing snap rings and other assorted applications.

Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.

Multi-use tools to scribe, align pierce, clean or remove o-rings, shaft seals, cv boot and motorcycle fork seals and dust hoods.

Packaged in a molded tray which can be placed in tool drawer.

4508

Professional Style Seal Puller

Designed to remove oil and grease seals when servicing cars, SUVs, and light trucks without damaging the housing or bearing.

Hook tips in two sizes and professional handle design allows removal of hard-to-get-at seals by getting under them.

The tool is 12" long and the hook tip is double-secured (versus competitors’ designs), for durability.

An extra blade is included, and additional replacements (No. 4508-1) may be ordered.

4508-1 Replacement blade for 4508

7103

O-Ring / Oil Seal Pick Set

Fishing a stubborn o-ring or oil seal out of its seat is easy if you have this pair of picks in your toolbox.

7312

O-Ring / Oil Seal Pick

Here’s an extremely handy tool that makes quick work of oil seal and o-ring removal and installation.

4658

Windshield Spray Nozzle Needle

Makes quick work of clearing obstructions from the windshield washer spray nozzle.

Easily pierces corrosion or remove blockage.

The barrel is knurled for grip and control.

Threaded end caps keep the needle points covered when not in use. The pocket clip keeps the tool handy.

4600

Punch and Chisel Set, 16 piece

Durable set of heat-treated chrome vanadium steel punches & chisels. Storage tray included.

Contents of set, Also Available separately.

<table>
<thead>
<tr>
<th>No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4600-15</td>
<td>Taper Punch, 1/4&quot; x 6-3/4&quot;</td>
</tr>
<tr>
<td>2</td>
<td>4600-14</td>
<td>Taper Punch, 3/16&quot; x 6-1/4&quot;</td>
</tr>
<tr>
<td>3</td>
<td>4600-13</td>
<td>Taper Punch, 5/32&quot; x 6&quot;</td>
</tr>
<tr>
<td>4</td>
<td>4600-3</td>
<td>Cold Chisel, 3/8&quot; x 5-1/2&quot;</td>
</tr>
<tr>
<td>5</td>
<td>4600-2</td>
<td>Cold Chisel, 1/2&quot; x 6&quot;</td>
</tr>
<tr>
<td>6</td>
<td>4600-1</td>
<td>Cold Chisel, 5/8&quot; x 6-1/2&quot;</td>
</tr>
<tr>
<td>7</td>
<td>4600-4</td>
<td>Center Punch, 3/16&quot; x 8&quot;</td>
</tr>
<tr>
<td>8</td>
<td>4600-5</td>
<td>Center Punch, 1/8&quot; x 5&quot;</td>
</tr>
<tr>
<td>9</td>
<td>4600-12</td>
<td>Taper Punch, 1/8&quot; x 5-3/4&quot;</td>
</tr>
<tr>
<td>10</td>
<td>4600-11</td>
<td>Taper Punch, 3/32&quot; x 5-1/4&quot;</td>
</tr>
<tr>
<td>11</td>
<td>4600-10</td>
<td>Pin Punch, 3/32&quot; x 4-1/4&quot;</td>
</tr>
<tr>
<td>12</td>
<td>4600-9</td>
<td>Pin Punch, 1/8&quot; x 4-3/4&quot;</td>
</tr>
<tr>
<td>13</td>
<td>4600-8</td>
<td>Pin Punch, 5/32&quot; x 5&quot;</td>
</tr>
<tr>
<td>14</td>
<td>4600-7</td>
<td>Pin Punch, 3/16&quot; x 5-1/4&quot;</td>
</tr>
<tr>
<td>15</td>
<td>4600-6</td>
<td>Pin Punch, 1/4&quot; x 5-3/4&quot;</td>
</tr>
<tr>
<td>16</td>
<td>4600-16</td>
<td>Chisel Gauge</td>
</tr>
</tbody>
</table>
BFH Hammer
• Indestructible handle - never needs replacement
• Ergonomic rubber grip handle reinforced with steel bars resists breaking while absorbing impact and vibration.
• Drop-forged head is induction-hardened for long life, and contains steel locking plates that are specially bonded to ensure the head never becomes loose.
• Tire Service Features for 5789ID-1032 and 5789ID-520.
  - Use top hook as a wheel tipper; sledge end hook to drag tire into position.
  - Bead breaking wedge has grooves and a convex shape to help drive tire lube into the bead.

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5790ID-616</td>
<td>6 lbs.</td>
<td>16”</td>
<td>7.6 lbs.</td>
</tr>
<tr>
<td>5790ID-624</td>
<td>6 lbs.</td>
<td>24”</td>
<td>9.4 lbs.</td>
</tr>
<tr>
<td>5790ID-630</td>
<td>6 lbs.</td>
<td>30”</td>
<td>10.4 lbs.</td>
</tr>
<tr>
<td>5790ID-812</td>
<td>8 lbs.</td>
<td>12”</td>
<td>8.9 lbs.</td>
</tr>
<tr>
<td>5790ID-816</td>
<td>8 lbs.</td>
<td>16”</td>
<td>9.7 lbs.</td>
</tr>
<tr>
<td>5790ID-824</td>
<td>8 lbs.</td>
<td>24”</td>
<td>11.2 lbs.</td>
</tr>
<tr>
<td>5790ID-830</td>
<td>8 lbs.</td>
<td>30”</td>
<td>12.4 lbs.</td>
</tr>
<tr>
<td>5790ID-1030</td>
<td>10 lbs.</td>
<td>30”</td>
<td>14.0 lbs.</td>
</tr>
<tr>
<td>5790ID-1230</td>
<td>12 lbs.</td>
<td>30”</td>
<td>16.6 lbs.</td>
</tr>
<tr>
<td>5790ID-1430</td>
<td>14 lbs.</td>
<td>30”</td>
<td>18.5 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5791ID-312</td>
<td>2.5 lbs.</td>
<td>12”</td>
<td>4.0 lbs.</td>
</tr>
<tr>
<td>5791ID-412</td>
<td>4 lbs.</td>
<td>12”</td>
<td>5.1 lbs.</td>
</tr>
<tr>
<td>5791ID-416</td>
<td>4 lbs.</td>
<td>16”</td>
<td>5.5 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5792ID-216</td>
<td>2 lbs.</td>
<td>16”</td>
<td>4.5 lbs.</td>
</tr>
<tr>
<td>5792ID-316</td>
<td>3 lbs.</td>
<td>16”</td>
<td>5.4 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5793ID-2414</td>
<td>24 oz.</td>
<td>14”</td>
<td>2.6 lbs.</td>
</tr>
<tr>
<td>5793ID-3214</td>
<td>32 oz.</td>
<td>14”</td>
<td>3.0 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Head Weight</th>
<th>Handle Length</th>
<th>Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5789ID-1032</td>
<td>10 lbs.</td>
<td>32”</td>
<td>14.4 lbs.</td>
</tr>
<tr>
<td>5789ID-520</td>
<td>5 lbs.</td>
<td>20”</td>
<td>7.3 lbs.</td>
</tr>
</tbody>
</table>

BFH Hammer
- Indestructible handle - never needs replacement
- Ergonomic rubber grip handle reinforced with steel bars resists breaking while absorbing impact and vibration.
- Drop-forged head is induction-hardened for long life, and contains steel locking plates that are specially bonded to ensure the head never becomes loose.
- Tire Service Features for 5789ID-1032 and 5789ID-520.
  - Use top hook as a wheel tipper; sledge end hook to drag tire into position.
  - Bead breaking wedge has grooves and a convex shape to help drive tire lube into the bead.
4605
Interchangeable Punch and Chisel Set
- Safety protective handle allows easy grip and protects hand from being hit by hammer.
- 12 punches and chisels included: 5 flat chisels: 1/8", 5/8", 3/4", 7/8", and 1" wide blades 1 cape chisel: 1/4" blade 2 taper punches: 1/8" and 1/4" diameter 2 pin punches: 3/16" and 1/4" diameter 2 center punches: 1/8" and 1/4" diameter
- Double locking ball detent holds punch or chisel securely in the driver handle.
- Replacement parts available:
  - 4605-1 Drive handle
  - 4605-2 1/2" wide flat chisel
  - 4605-3 5/8" wide flat chisel
  - 4605-4 3/4" wide flat chisel
  - 4605-5 7/8" wide flat chisel
  - 4605-6 1" wide flat chisel
  - 4605-7 1/4" cape chisel
  - 4605-8 1/8" taper punch
  - 4605-9 1/4" taper punch
  - 4605-10 3/16" pin punch
  - 4605-11 1/4" pin punch
  - 4605-12 1/8" center punch
  - 4605-13 3/16" center punch

Impact Drivers
- Loosens hard-to-turn screws, bolts or nuts.
- Handle design prevents possibility of hitting hand with hammer when striking impact driver.
- Bit holder has 3/8" drive (No. 4608), 1/2" (No. 4607) drive, and 5/16" hex for Phillips and flat screwdriver bits.
- Includes eight screwdriver bits:
  - No. 2 Phillips bit, 1-3/8" long with 5/16" hex
  - No. 2 Phillips bit, 3-1/8" long with 5/16" hex
  - No. 3 Phillips bit, 1-3/8" long with 5/16" hex
  - No. 3 Phillips bit, 3-1/8" long with 5/16" hex
- 4607 1/2" Impact Driver
- 4608 3/8" Impact Driver

4406
Adjustable Bearing Race and Seal Driver
- Universal and fully adjustable.
- Twist head to adjustable from 3/4" to 3.5" (19mm to 89mm).
- Lock bolt holds jaws to preferred diameter.
- Steel striking cap mounted on aluminum handle and head provides a weight under 2 lbs.

4407
Metric Bushing Driver Set
- 14-piece tool kit for motorcycles, Asian and European vehicles contains adapters: 10-12 mm, 14-16 mm, 15-17 mm, 16-18 mm, 18-20 mm, 20-22 mm, 22-24 mm, 25-27 mm, 28-30 mm, 30-34 mm, 32-36 mm, 35-40 mm, 38-42 mm; one small driver handle; one medium driver handle; one large driver handle.
- Aluminum construction won’t mar the bushing or affect bushing tolerance, which is critical for efficient operation of the engine, transmission, and hubs.

4408
Bearing Race and Seal Driver Kit
- The Bearing Race and Seal Driver Kit provides a convenient way to smoothly and quickly position a bearing in the inner hole of an axle.
- The kit includes a handle grip and six heavy-duty bearing drivers. The drivers have different diameters in order to match different-sized bearings, and three of the drivers are formed with two different diameters.
- Bearing Driver Sizes: 1.555" (39.5 mm) 1.752" (44.5 mm) 1.968" (50.0 mm) 2.322" (59.0 mm) 2.48" (63.0 mm) 2.559" (65.0 mm) 2.834" (72.0 mm) 2.992" (76.0 mm) 3.189" (81.0 mm)

4505
Master Bushing Drive Set (33 piece Metric & Standard)
- Enables you to remove and install bushings ranging from 3/8" to 1-3/8" in diameter, as used in cars, trucks, tractors, construction equipment, electric motors, & many other components having bushings.
- Includes: Large, medium, and small driver handles with nuts; sixteen bushing adapters ranging from 3/8" to 1-3/8".
- Housed in a blow-molded storage case.

4507
Bushing Driver Set, 19 piece
- Enables you to remove and install bushings ranging from 3/8" to 1-3/8" in diameter, as used in cars, trucks, tractors, construction equipment, electric motors, & many other components having bushings.
- Includes: Large, medium, and small driver handles with nuts; sixteen bushing adapters ranging from 3/8" to 1-3/8".
- Housed in a blow-molded storage case.
SEAL & BEARING DRIVER SET
Now you can have the proper-size driver for nearly any automotive seal, bearing, or bushing installation job. These sets include discs and handles, spacers and drivers.
• Discs range from 1/2” to 4-1/2” in diameter, in 1/16” increments.

27793   Starter set. Includes a handle and discs (5/8” to 2” diameter) specially selected to provide the driver sizes usually needed in automotive service. Includes plastic storage box and insert.
27794   Basic set. Includes two handle sizes and 41 discs, ranging from 1/2” to 3” diameter along with plastic storage box.
27795   Big-job set for servicing large components. Includes a handle and 24 discs, ranging from 3-1/16” to 4-1/2” diameter.
27796   Intermediate set. Includes a handle and 25 discs, ranging from 2” to 3-1/2” diameter.
27797   Master set. Includes three handle sizes and 65 discs, ranging from 1/2” to 4-1/2” diameter.
27810   Tool organizer board for holding all components in No. 27797 master set.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10012*</td>
<td>Cap Screw</td>
</tr>
<tr>
<td>10020*</td>
<td>Cap Screw</td>
</tr>
<tr>
<td>10854*</td>
<td>Cap Screw</td>
</tr>
<tr>
<td>10855*</td>
<td>Cap Screw</td>
</tr>
<tr>
<td>12001*</td>
<td>Cap Screw</td>
</tr>
<tr>
<td>27487*</td>
<td>Small Handle</td>
</tr>
<tr>
<td>27488</td>
<td>Medium Handle</td>
</tr>
<tr>
<td>27489</td>
<td>Large Handle</td>
</tr>
<tr>
<td>27490</td>
<td>Extension Tube</td>
</tr>
<tr>
<td>27491</td>
<td>Disc, 1/2” dia.</td>
</tr>
<tr>
<td>27492</td>
<td>Disc, 9/16” dia.</td>
</tr>
<tr>
<td>27493*</td>
<td>Disc, 5/8” dia.</td>
</tr>
<tr>
<td>27494</td>
<td>Disc, 11/16” dia.</td>
</tr>
<tr>
<td>27495*</td>
<td>Disc, 3/4” dia.</td>
</tr>
<tr>
<td>27496</td>
<td>Disc, 13/16” dia.</td>
</tr>
<tr>
<td>27497*</td>
<td>Disc, 7/8” dia.</td>
</tr>
<tr>
<td>27498</td>
<td>Disc, 15/16” dia.</td>
</tr>
<tr>
<td>27499*</td>
<td>Disc, 1” dia.</td>
</tr>
<tr>
<td>27500</td>
<td>Disc, 1-1/16” dia.</td>
</tr>
<tr>
<td>27501*</td>
<td>Disc, 1-1/8” dia.</td>
</tr>
<tr>
<td>27502</td>
<td>Disc, 1-3/16” dia.</td>
</tr>
<tr>
<td>27503*</td>
<td>Disc, 1-1/4” dia.</td>
</tr>
<tr>
<td>27504</td>
<td>Disc, 1-5/16” dia.</td>
</tr>
<tr>
<td>27505*</td>
<td>Disc, 1-3/8” dia.</td>
</tr>
<tr>
<td>27506</td>
<td>Disc, 1-7/16” dia.</td>
</tr>
<tr>
<td>27507*</td>
<td>Disc, 1-1/2” dia.</td>
</tr>
</tbody>
</table>

NOTE: All discs are 1/2” thick. *Included in set No. 27793.

5550 Spectrum Solar 10W LED Work Light with UV Top Light
5551 Spectrum Trio 9W LED Work Light with 3W LED Top Light
5552 Spectrum 30+4 30 Pc. LED Work Light with 4 Pc. LED Top Light

5550 Specifications
- 10W LED Work light with UV Top Light
- Li-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 – 240V; 50/60Hz; DC12V – 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 – 4.0 hours
- Active Time: 2.5 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5° to 50°C
- PS: LED Sector: 170°
- At 50 cm: 350 LUX (750 LM)
- Waterproof Grade IP65

5551 Specifications
- 9W LED Work light with 3W LED Top Light
- Li-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 – 240V; 50/60Hz; DC12V – 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 – 4.0 hours
- Active Time: 3.0 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5° to 50°C
- PS: LED Sector: 25°
- At 50 cm: 4000 LUX
- Waterproof Grade IP65

5552 Specifications
- 30 Piece LED Work light with 4 Piece LED Top Light
- Li-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 – 240V; 50/60Hz; DC12V – 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 – 4.0 hours
- Active Time: 4.0 to 5.0 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5° to 50°C
- PS: LED Sector: 15°
- At 50 cm: 2250 LUX
- Waterproof Grade IP65

- AC/DC Rechargeable
- Li-ion battery
- Magnetic base
- Bright LEDs – 50,000 hour life
- Adjustable 60° angle
- Slip resistant textured body
- Impact & Waterproof Grade IP65
- Limited Lifetime Warranty
4802 Universal Pulley Holder Locking Pliers
This adjustable locking pliers can be used to hold pulleys, clutch hubs, flywheels, gears, and sprockets with internal or external teeth up to a 4” diameter. Can also be used on applications with slots or holes with the addition of the interchangeable 5, 6, 7, 10, and 16mm pin sets. Complete with metal carry case.

4804 Heavy Duty Pulley Holder
This strap style universal wrench features a 9” drop forged handle and 23” leather strap for excellent grip on diameters up to 7”. The milled foot increases grip on the strap and pulley as handle force is increased.

6043 Cooling System Power Flush Gun
Perfectly suited for quick and efficient cooling system flushing. Simply attach it to radiator or heater hoses and you’re in business. Also usable in washing engines and even shop floors. Two simple connections: one to shop air and one to a typical water faucet. No. 6043 creates a unique vortex air/water blast for powerful cleaning applications.

Note: While normal water pressure will handle the majority of a cooling system flush, short blasts are sometimes needed to loosen some contaminants from within the system.

4803 Universal Pulley Holder Locking Pliers Set
This adjustable locking pliers can be used to hold pulleys, clutch hubs, flywheels, gears, and sprockets with internal or external teeth up to a 4” diameter. Can also be used on applications with slots or holes with the addition of the interchangeable 5, 6, 7, 10, and 16mm pin sets. Complete with metal carry case.

7011 Ball Hone Set (10 piece)
• Ball Hones can be used for refinishing and resizing bores such as found in brake calipers, engine lifters, and u-joint yokes. Also useful for any bearing or bushing application.
• All hones are 180 grit Silicon Carbide for excellent cutting and finish.

4491 Mechanic’s Stethoscope
• Quick and accurate way to locate vehicle noise.
• Spring diaphragm on end of hose amplifies noise.
• Includes two hose ends: long rod helps pinpoint noises in hard-to-access areas; short adapter helps locate noise in a broader area of the vehicle.

2423 Stainless Steel Tip Blow Gun
• Designed for operating pressure of 50 PSI to 235 PSI and temperature range of 14° to 158°F.
• When inlet pressure is 90 PSI, venting design prevents pressure exceeding 30 PSI if tip becomes blocked - conforming to OSHA Std. 1-13.1
• When inlet pressure is 100 PSI, the noise level is held below 80 db conforming to OSHA Std. 1910-95 (b), quieter than an electric drill
• 4-½”Stainless Steel Nozzle and Variable Speed Trigger for full control of amount of air dispensed
• Impact & Weather resistant materials and drop resistant construction
• Brass threaded air inlet

1630 OTC 2-Drawer Service Cart
The cart features 5” oversized casters (2-locking, 2-non-locking), an ergonomic grip handle, screw driver storage, locking top and gas shocks to support the lid. The cart has a 500-pound load capacity and stands 39.5” tall, 33.25” wide and 20” deep. The bottom tray is perfect for bulkier storage items, like rags, cleaners and solvents. The top bin is 5” tall and houses the drawer locking mechanism. The first drawer is 3.25” tall and the second drawer is 4.25” tall, both with a generous 20” depth. Safely store diagnostic hardware, cameras and expensive tools securely and within arms reach. OTC Lifetime Warranty.

2424 PRO Series Safety Blow Gun (Standard Tip)
• Die Cast Aluminum body is non corroding and made to last in the harshest environments
• Ergonomic body design and dip coated operating lever reduce fatigue
• Exclusive venturi mechanism uses side ports to create higher volume of usable output
• Tamper-Proof design reduces output to safe levels if ports are blocked
• Meets OSHA standards for Safety and Noise
PULLERS
Puller "How-to" Information 120 – 121
Puller Safety Tips 121
Protective Blankets 121
Mechanical "Grip-O-Matic" Pullers 122
Mechanical Push-Pullers and Pulling Adapters 123
Hydraulic Push-Pullers 124 – 125
Hydraulic "Grip-O-Matic" Pullers 126
Bearing Splitters and Pulling Attachment 127
Slide Hammer Pullers 128 – 129
Differential Bearing Pullers 130
Blind Hole Pullers, Bearing Pullers, and A/C Clutch Pulley 131 – 132
Flange-Type Pullers 133
17-1/2 – 50-Ton Puller Sets 134 – 136
SELECTING THE RIGHT PULLER

PULLERS

GENERAL RULE OF THUMB:
Manual pullers require that the puller screw be at least half as large (in diameter) as the shaft of the pulling job. Hydraulic pullers need the maximum force exerted in tons to be 7–10 times the diameter of the shaft in inches.

1 PULLING SOMETHING OFF A SHAFT.
Removing a gear, bearing, wheel, pulley, etc., to replace it or get at another part.

2 PULLING SOMETHING OUT OF A HOLE.
Internal bearing cups, retainers, or oil seals are usually press-fitted and are difficult to remove.

3 PULLING A SHAFT OUT OF SOMETHING.
A transmission shaft or pinion shaft is often hard to remove from a bore or housing. Use a Push-Puller with adapters if you can “get a hold of” the threaded end of the shaft. Sometimes it’s possible to push a shaft through a housing, rather than pull it out. In applications of this type, the puller legs must be securely fastened to the housing and the screw may simply bear against the shaft.

120

YOU CAN SOLVE THE 3 BASIC PULLING PROBLEMS...

The first thing you have to do is identify exactly what your particular pulling problem is. Once you recognize the problem, you can go on to select the right tool to solve it.

HOW TO SELECT THE RIGHT PULLER
1: Determine the type of puller or puller combination. Which puller type is best for “getting a grip” on the part? Is a combination of puller types required?
2: Determine the “REACH” needed. The puller you select must have a “reach” equal to or larger than the corresponding sizes of the part.
3: Determine the “SPREAD” needed. The width of the part to be pulled will determine the “spread” required.
4: Estimate the force required. A puller with the correct “reach” and “spread” will usually have enough power. When in doubt, always use the next larger size. More power may be needed for rusted parts, or when the “area of resistance” is large.

The tools to use when pulling something off a shaft:
- Jaw-type puller, either manual or hydraulic. (For extra force and convenience use a hydraulic puller.) Both are available in 2- or 3-jaw versions and are used to grip the outer circumference of an attachment.
- Bearing pulling attachment. Provides “knife-like” edges to get behind the component, or when there isn’t a good gripping area on the part to be pulled. The splitter gets behind the component to prevent damage to the part.
- Push-Puller® with attachments. External-internal adapters can thread directly into tapped holes on a component.
- Slide hammer puller with selected attachments for multiple light-duty pulling tasks.
- A variety of OTC adapters can be used to protect a shaft, bridge a hole, thread into tapped holes, or assist installation.

The tools to use when pulling something out of a hole:
- Internal pulling attachments have narrow jaws which extend through the center of the part to be pulled. They provide a straight pull and avoid damage to housings. Designed for use with Push-Pullers or slide hammer pullers.
- Push-Puller in combination with internal pulling attachment. Both mechanical and hydraulically powered versions are available.
- Here a slide hammer puller is combined with an internal pulling attachment. Ideal for removing parts from blind holes, especially when there is no housing to brace puller legs against.
- When there is a shaft to bear against, a forcing screw of the correct size may be used in combination with an internal pulling attachment.

The tools to use when pulling a shaft out of something:
- Push-Puller® with threaded adapter. Use a mechanical or hydraulic puller, depending on the size of the shaft to be pulled.
- When the housing lacks sufficient surface for the puller legs to bear against, a pulling attachment may be used to provide support.
- Slide hammer puller with threaded adapter – either external-internal or internal can be used.
- Internal adapters are fastened to the external threaded end of the shaft to pull while pushing against the housing.
- External-internal adapters are threaded into the shaft to pull it while pushing against the housing.
OPERATOR SAFETY COMES FIRST

PULLERS

Protective Blankets
Think of them as “security blankets.” They wrap around pulling, pressing, and other high-force jobs to protect you and your employees from work-related injuries as much as possible. They’re made of high tensile, tear resistant ballistic nylon — similar to military flak jackets — that, when tested, withstand the shattering of a neck-down grade 8 bolt without any visible damage.

NOTE: Always reduce the force from the work piece prior to removing the blanket. Protective blankets may afford protection from injuries to users and others should part breakage occur. Because of the variety of situations that require guarding, it is the user’s responsibility to determine the best method of protection.

1230PB
Protective blanket. 12” x 30”

2036PB
Protective blanket. 20” x 36”

2860PB
Protective blanket. 28” x 60”

SAFETY PRECAUTIONS

WARNING: TO PREVENT PERSONAL INJURY WHEN USING PULLERS,

- Wear approved eye protection, such as safety glasses, goggles, or a face shield.
- Inspect puller for dents, cracks, or excessive wear before use. Inspect forcing screw for signs of galling or seizing. Replace worn or damaged components.
- Do not exceed puller’s rated capacity, spread, or reach. Use correct size of puller for application.
- Ensure puller is correctly aligned with application and seated on component to be removed. Jaws must be parallel to forcing screw.
- Do not use wrench extensions when applying a load.
- Cover application with a shield or protective blanket before force is applied to contain flying debris should breakage occur.
- Apply force gradually. Do not use an impact wrench to apply force unless instructions specify use with an impact wrench.
- Do not strike or “sledge” puller or component.
- Do not modify puller by grinding, heating, or other means that could weaken puller strength.

ABOUT MECHANICAL PULLERS

A pulling system can exert tons of force and it is difficult to predict the exact force required for a pulling application. It is important to observe safety precautions when using a puller.

The OTC pulling system is versatile. For that reason, it is possible that various components in a pulling setup will have different tonnage ratings. The lowest capacity component determines the capacity of the entire setup. For example, when an accessory having a capacity of one ton is used with a 10-ton capacity puller, the puller setup can be used at a force of only one ton.

NOTE: Always reduce the force from the work piece prior to removing the blanket. Protective blankets may afford protection from injuries to users and others should part breakage occur.

4. Apply force gradually. The component should give a little at a time. Do not try to speed up the application by using an impact wrench on the forcing screw.
5. Do not couple puller legs. The tonnage capacity of the puller is reduced when longer-than-standard legs are used or when legs are compressed, increasing the chance of breakage.
6. Keep reach to a minimum. Use the shortest legs possible to reach the component to be removed.
7. Install threaded puller legs evenly into the component, attachment, or adapter. Uneven legs result in greater force applied to one side of the puller, which can result in breakage.
8. Sliding plates must be on the opposite side of the cross block from the forcing screw nut or hydraulic cylinder.
9. Bearing pulling attachments may not withstand the full tonnage of the pullers with which they are used. The shape and condition of the component being pulled affects the tonnage at which puller blocks and / or studs may bend or break. Select the largest attachments that fit the component being pulled.

PULLER OPERATION

1. Mount the puller so its grip is tight. When using a jaw-type puller, tighten the adjusting strap bolts. For a better grip and more even pulling power, use a 3-jaw puller when possible.
2. Align puller legs and jaws. Verify the setup is rigid and the puller is square with the application.
3. Use the correct size of puller for the application. If you have applied maximum force and the component has not moved, switch to a larger capacity puller.
4. Apply force gradually. The component should give a little at a time. Do not try to speed up the application by using an impact wrench on the forcing screw.
5. Do not couple puller legs. The tonnage capacity of the puller is reduced when longer-than-standard legs are used or when legs are compressed, increasing the chance of breakage.
6. Keep reach to a minimum. Use the shortest legs possible to reach the component to be removed.
7. Install threaded puller legs evenly into the component, attachment, or adapter. Uneven legs result in greater force applied to one side of the puller, which can result in breakage.
8. Sliding plates must be on the opposite side of the cross block from the forcing screw nut or hydraulic cylinder.
9. Bearing pulling attachments may not withstand the full tonnage of the pullers with which they are used. The shape and condition of the component being pulled affects the tonnage at which puller blocks and / or studs may bend or break. Select the largest attachments that fit the component being pulled.

PULLER MAINTENANCE

Keep the puller clean, and frequently lubricate the forcing screw from threads to tip.

FOR MORE DETAILS VISIT OTCTOOLS.COM
# GRIP-O-MATIC® PULLERS

## PROVIDING AUTOMOTIVE SERVICE SOLUTIONS FOR OVER 80 YEARS

**Mechanical Grip-O-Matic® Pullers**

OTC has developed the most complete line of gear and bearing pullers, enabling you to remove and install parts for fast, effective repairs. The pullers are forged from quality steel, heat treated, and subjected to rigorous tests which exceed their rated capacity.  

No. 1020–1050

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Capacity Style and Weight</th>
<th>Max Reach Spread</th>
<th>Screw Size</th>
<th>Jaw Thickness</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1020</td>
<td>1-Ton, 2-Jaw; 5 oz.</td>
<td>2-1/8” 3-1/4”</td>
<td>5/16”–24 x 3-7/8”</td>
<td>9/64” 1/4”</td>
<td></td>
</tr>
<tr>
<td>1021</td>
<td>1-Ton, 3-Jaw; 8 oz.</td>
<td>2-1/8” 3-1/4”</td>
<td>5/16”–24 x 3-7/8”</td>
<td>9/64” 1/4”</td>
<td></td>
</tr>
<tr>
<td>1022</td>
<td>2-ton, 2-Jaw; 14 oz.</td>
<td>3-1/4” 4”</td>
<td>3/8”–24 x 4-7/8”</td>
<td>Upper 3/16”</td>
<td>Lower 1/8” Upper 1/4” Lower 1/2”</td>
</tr>
<tr>
<td>1023</td>
<td>2-ton, 2/3-Jaw; 1 lb., 5 oz. (Reversible Jaws)</td>
<td>3-1/4” 4-3/4”</td>
<td>3/8”–24 x 4-7/8”</td>
<td>Upper 3/16”</td>
<td>Lower 1/8” Upper 1/4” Lower 1/2”</td>
</tr>
<tr>
<td>1024</td>
<td>5-Ton, 2-Jaw; 1 lb., 12 oz. (Reversible Jaws)</td>
<td>3-1/4” 6”</td>
<td>9/16”–20 x 6-15/16”</td>
<td>Upper 5/16”</td>
<td>Lower 1/4” Upper 3/8” Lower 3/4”</td>
</tr>
<tr>
<td>1026</td>
<td>5-Ton, 2/3-Jaw; 2 lbs., 12 oz. (Reversible Jaws)</td>
<td>3-1/4” 7”</td>
<td>9/16”–20 x 6-15/16”</td>
<td>Upper 5/16”</td>
<td>Lower 1/4” Upper 3/8” Lower 3/4”</td>
</tr>
<tr>
<td>1025</td>
<td>5-Ton, Long 2-Jaw; 2 lbs. (Reversible Jaws)</td>
<td>5-1/2” 6”</td>
<td>9/16”–20 x 6-15/16”</td>
<td>Upper 5/16”</td>
<td>Lower 1/4” Upper 3/8” Lower 3/4”</td>
</tr>
<tr>
<td>1027</td>
<td>5-Ton, Long 2/3-Jaw; 3 lbs., 10 oz. (Rev. Jaws)</td>
<td>5-1/2” 7”</td>
<td>9/16”–20 x 6-15/16”</td>
<td>Upper 5/16”</td>
<td>Lower 1/4” Upper 3/8” Lower 3/4”</td>
</tr>
<tr>
<td>1035</td>
<td>7-Ton, 2-Jaw; 4 lbs., 8 oz. (Reversible Jaws)</td>
<td>5” 9”</td>
<td>11/16”–18 x 9”</td>
<td>Upper 5/16”</td>
<td>Lower 11/32” Upper 1” Lower 1”</td>
</tr>
<tr>
<td>1037</td>
<td>7-Ton, 2/3-Jaw; 6 lbs., 2 oz. (Rev. Jaws)</td>
<td>5” 10-1/2”</td>
<td>11/16”–18 x 9”</td>
<td>Upper 5/16”</td>
<td>Lower 11/32” Upper 1” Lower 1”</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Capacity Style and Weight</td>
<td>Max Reach Spread</td>
<td>Screw Size</td>
<td>Jaw Thickness</td>
<td>Width</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------</td>
<td>------------------</td>
<td>------------</td>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td>1036</td>
<td>7-Ton, Long 2-Jaw; 5 lbs., 6 oz.</td>
<td>8-3/4” 9-1/2’</td>
<td>11/16”–18 x 9”</td>
<td>11/32”</td>
<td>1’</td>
</tr>
<tr>
<td>1038</td>
<td>7-Ton, Long 2/3-Jaw; 8 lbs., 2 oz.</td>
<td>8-3/4” 11”</td>
<td>11/16”–18 x 9”</td>
<td>11/32”</td>
<td>1’</td>
</tr>
<tr>
<td>1039</td>
<td>13-Ton, 2-Jaw; 10 lbs., 13 oz.</td>
<td>11” 12”</td>
<td>13/16”–16 x 12”</td>
<td>9/16”</td>
<td>1’</td>
</tr>
<tr>
<td>1041</td>
<td>13-Ton, 2/3-Jaw; 16 lbs., 4 oz.</td>
<td>11” 12”</td>
<td>13/16”–16 x 12”</td>
<td>9/16”</td>
<td>1’</td>
</tr>
<tr>
<td>1040</td>
<td>13-Ton, Long 2-Jaw; 13 lbs.</td>
<td>15-1/4” 15-1/2”</td>
<td>13/16”–16 x 12”</td>
<td>9/16”</td>
<td>1’</td>
</tr>
<tr>
<td>1042</td>
<td>13-Ton, Long 2/3-Jaw; 18 lbs., 12 oz.</td>
<td>15-1/4” 17”</td>
<td>13/16”–16 x 12”</td>
<td>9/16”</td>
<td>1’</td>
</tr>
<tr>
<td>1043</td>
<td>17-1/2-Ton, 2-Jaw; 23 lbs.</td>
<td>14-1/2” 14”</td>
<td>1”–14 x 131/2”</td>
<td>13/16”</td>
<td>1-9/32”</td>
</tr>
<tr>
<td>1045</td>
<td>17-1/2-Ton, 3-Jaw; 33 lbs.</td>
<td>14-1/2” 14”</td>
<td>1”–14 x 13-1/2”</td>
<td>13/16”</td>
<td>1-9/32”</td>
</tr>
<tr>
<td>1044</td>
<td>17-1/2-Ton, Long 2-Jaw; 26 lbs.</td>
<td>18-3/4” 16”</td>
<td>1”–14 x 13-1/2”</td>
<td>13/16”</td>
<td>1-9/32”</td>
</tr>
<tr>
<td>1046</td>
<td>17-1/2-Ton, Long 3-Jaw; 37 lbs.</td>
<td>18-3/4” 16”</td>
<td>1”–14 x 13-1/2”</td>
<td>13/16”</td>
<td>1-9/32”</td>
</tr>
<tr>
<td>1047</td>
<td>25-Ton, 2-Jaw; 37 lbs., 8 oz.</td>
<td>15-1/2” 18”</td>
<td>1-1/4”–12 x 15-15/16”</td>
<td>1-1/16”</td>
<td>1-1/2”</td>
</tr>
<tr>
<td>1049</td>
<td>25-Ton, 3-Jaw; 54 lbs.</td>
<td>15-1/2” 18”</td>
<td>1-1/4”–12 x 15-15/16”</td>
<td>1-1/16”</td>
<td>1-1/2”</td>
</tr>
<tr>
<td>1048</td>
<td>25-Ton, Long 2-Jaw; 42 lbs., 12 oz.</td>
<td>22-1/4” 20”</td>
<td>1-1/4”–12 x 15-15/16”</td>
<td>1-1/16”</td>
<td>1-1/2”</td>
</tr>
<tr>
<td>1050</td>
<td>25-Ton, Long 3-Jaw; 60 lbs.</td>
<td>22-1/4” 20”</td>
<td>1-1/4”–12 x 15-15/16”</td>
<td>1-1/16”</td>
<td>1-1/2”</td>
</tr>
</tbody>
</table>
Push-Pullers®

**927 10-Ton Capacity** Can be used with No. 1123 bearing pulling attachment or No. 679 pulley pulling attachment. May also be used with Nos. 1150, 1151, 1152, or 1153 internal pulling attachments.

**938 17-1/2 Ton Capacity** Can be used with Nos. 1124 and 1130 bearing pulling attachments or Nos. 679 and 680 pulley pulling attachments. May also be used with Nos. 1150, 1151, 1153, 1165, or 1166 internal pulling attachments.

**939 30-Ton Capacity** Can be used with Nos. 1126 and 1127 bearing pulling attachments or No. 680 pulley pulling attachment (two 8012 adapters are required to connect 680 to puller). Can be used with No. 1165 internal pulling attachment.

### Push-Pullers® Leg Extensions

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1103</td>
<td>4-3/4” 1 lb.</td>
<td>1102</td>
<td>11-3/4” 2 lbs., 4 oz.</td>
</tr>
<tr>
<td>1100</td>
<td>6-3/4” 8 oz.</td>
<td>1101</td>
<td>15-3/4” 3 lbs., 4 oz.</td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 927 Push-Puller (Reach equals leg length plus 1-1/2” with leg end caps.)

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1107</td>
<td>4-1/2” 2 lbs., 8 oz.</td>
<td>1105</td>
<td>22-1/2” 9 lbs.</td>
</tr>
<tr>
<td>1106</td>
<td>9-1/2” 4 lbs., 8 oz.</td>
<td>1108</td>
<td>30” 11.5 lbs.</td>
</tr>
<tr>
<td>1104</td>
<td>16-1/2” 6 lbs., 8 oz.</td>
<td> </td>
<td> </td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 938 Push-Puller (Reach equals leg length plus 2” with leg end caps.)

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1109</td>
<td>8” 8 lbs.</td>
<td>1111</td>
<td>28” 22 lbs.</td>
</tr>
<tr>
<td>1110</td>
<td>18” 15 lbs.</td>
<td> </td>
<td> </td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 939 Push-Puller (Reach equals leg length plus 2” with leg end caps.)
Metric and standard External-Internal Threaded Adapters
For use on the ends of Push-Puller legs or forcing screws when pulling shafts, bearing caps, pinions, etc.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8011</td>
<td>8055</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8012</td>
<td>8056</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8013</td>
<td>8054</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8014</td>
<td>8053</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8015</td>
<td>8052</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8016</td>
<td>8051</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8017</td>
<td>8050</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8018</td>
<td>8049</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8019</td>
<td>8048</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8020</td>
<td>8047</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8021</td>
<td>8046</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8022</td>
<td>8045</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8023</td>
<td>8044</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
</tbody>
</table>

Standard Threaded Adapters

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Internal End “A”</th>
<th>Internal End “B”</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>206437</td>
<td>1/2”–20</td>
<td>5/8”–18</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8000</td>
<td>5/8”–18</td>
<td>1/4”–20</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8001</td>
<td>5/8”–18</td>
<td>5/16”–18</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8002</td>
<td>5/8”–18</td>
<td>7/16”–14</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8003</td>
<td>5/8”–18</td>
<td>7/8”–20</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8004</td>
<td>5/8”–18</td>
<td>3/8”–24</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8005</td>
<td>5/8”–18</td>
<td>3/8”–16</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8006</td>
<td>5/8”–18</td>
<td>1/2”–20</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8007</td>
<td>5/8”–18</td>
<td>1/2”–13</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8008</td>
<td>5/8”–18</td>
<td>9/16”–12</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8009</td>
<td>5/8”–18</td>
<td>9/16”–12</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8010</td>
<td>5/8”–18</td>
<td>5/8”–11</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8011</td>
<td>5/8”–18</td>
<td>3/4”–16</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8012</td>
<td>5/8”–18</td>
<td>3/4”–10</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8013</td>
<td>5/8”–18</td>
<td>7/8”–14</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8014</td>
<td>5/8”–18</td>
<td>7/8”–9</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8015</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/4”</td>
</tr>
<tr>
<td>8016</td>
<td>5/8”–18</td>
<td>5/8”–11</td>
<td>2-1/2”</td>
</tr>
<tr>
<td>8017</td>
<td>5/8”–18</td>
<td>3/4”–16</td>
<td>2-1/2”</td>
</tr>
<tr>
<td>8018</td>
<td>5/8”–18</td>
<td>3/4”–10</td>
<td>2-1/2”</td>
</tr>
<tr>
<td>8019</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/2”</td>
</tr>
<tr>
<td>8020</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/2”</td>
</tr>
<tr>
<td>8021</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8022</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8023</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8024</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8025</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8026</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8027</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8028</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8029</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
<tr>
<td>8030</td>
<td>5/8”–18</td>
<td>1/14</td>
<td>2-1/6”</td>
</tr>
</tbody>
</table>

8074, 8076 & 8075
Step Plate Adapter Sets
Necessary for pulling and installing bearings, gears, or other parts found on hollow shafts or housings.
They may be used with Grip-O-Matic® pullers and Push-Pullers®, as well as shop presses. All adapters are available separately.

8044
Internal Threaded Adapter Set
For use on the ends of Push-Puller legs or forcing screws to aid in the removal and installation of shafts, axles, and housings.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Internal End “A”</th>
<th>Internal End “B”</th>
</tr>
</thead>
<tbody>
<tr>
<td>8035</td>
<td>1/2”–20</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8036</td>
<td>1”–14</td>
<td>1”–14</td>
</tr>
<tr>
<td>8037</td>
<td>5/8”–18</td>
<td>5/8”–18</td>
</tr>
<tr>
<td>8038</td>
<td>5/8”–18</td>
<td>3/4”–16</td>
</tr>
<tr>
<td>8039</td>
<td>5/8”–18</td>
<td>7/8”–14</td>
</tr>
<tr>
<td>8040</td>
<td>5/8”–18</td>
<td>1”–14</td>
</tr>
<tr>
<td>8041</td>
<td>5/8”–18</td>
<td>1-1/8”–12</td>
</tr>
<tr>
<td>8042</td>
<td>5/8”–18</td>
<td>1-1/4”–12</td>
</tr>
<tr>
<td>8043</td>
<td>5/8”–18</td>
<td>1-1/2”–12</td>
</tr>
</tbody>
</table>

* Not included in set No. 8044. Order separately. All adapters are available separately.

8056
Shaft Protector Set
Designed to protect shaft centers from distortion when extreme pressures are applied with either Grip-O-Matic® pullers or Push-Pullers. Shaft protectors are available separately.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
</tr>
</thead>
<tbody>
<tr>
<td>8050</td>
<td>1-1/2”</td>
<td>3/4”</td>
<td>3/8”</td>
<td>7/16”</td>
</tr>
<tr>
<td>8051</td>
<td>1-1/4”</td>
<td>3/4”</td>
<td>3/8”</td>
<td>3/8”</td>
</tr>
<tr>
<td>8052</td>
<td>1”</td>
<td>3/4”</td>
<td>3/8”</td>
<td>3/8”</td>
</tr>
<tr>
<td>8053</td>
<td>3/4”</td>
<td>3/4”</td>
<td>1”</td>
<td>1/4”</td>
</tr>
<tr>
<td>8054</td>
<td>5/8”</td>
<td>5/8”</td>
<td>1”</td>
<td>1/4”</td>
</tr>
<tr>
<td>8055</td>
<td>5/8”</td>
<td>5/8”</td>
<td>3/16”</td>
<td>3/16”</td>
</tr>
</tbody>
</table>

otctools.com
### HYDRAULIC PULLERS

#### Pullers

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Max. Reach</th>
<th>Max. Spread</th>
<th>Screw Size</th>
<th>Notes / Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1063</td>
<td>18-1/2&quot;</td>
<td>5-3/4&quot;–11-3/4&quot;</td>
<td>1”–8 x 20”</td>
<td>Puller with No. 1104 legs, No. 24827 leg ends, No. 4120 hyd. ram, No. 32118 adjusting screw, and No. 24814 adjusting crank. 38 lbs.</td>
</tr>
<tr>
<td>1062</td>
<td>18-1/2&quot;</td>
<td>5-3/4&quot;–11-3/4&quot;</td>
<td>1”–8 x 20”</td>
<td>Puller only. 22 lbs.</td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 1062, 1063 (Reach equals leg length plus 2" with leg end caps.)

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1107</td>
<td>4-1/2&quot;</td>
<td>1105</td>
<td>22-1/2&quot;</td>
</tr>
<tr>
<td></td>
<td>2 lbs., 8 oz.</td>
<td></td>
<td>9 lbs.</td>
</tr>
<tr>
<td>1106</td>
<td>9-1/2&quot;</td>
<td>1108</td>
<td>30&quot;</td>
</tr>
<tr>
<td></td>
<td>4 lbs., 8 oz.</td>
<td></td>
<td>11.5 lbs.</td>
</tr>
<tr>
<td>1104</td>
<td>16-1/2&quot;</td>
<td></td>
<td>LEG LENGTH</td>
</tr>
<tr>
<td></td>
<td>6 lbs., 8 oz.</td>
<td></td>
<td>on leg upper end.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1070, 1071</td>
<td>20-1/2&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1071</td>
<td>20-1/2&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1076</td>
<td>24&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1109</td>
<td>8&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1110</td>
<td>18&quot;</td>
</tr>
</tbody>
</table>

No. 1060–1080 Available in 10 to 50-ton capacities. Reliable single-acting Power Twin ram is matched with a versatile 2-jaw or 3-jaw puller. Lightweight ram can be used in other applications. You also get an adjusting screw, speed crank, and coupler where applicable. Hydraulic pump is not included; see index for pump listings.

### Hydraulic Push-Puller®

No. 1062, 1063 – 17-1/2 Ton Capacity
Can be used with Nos. 1124 and 1130 bearing pulling attachments or No. 680 pulley pulling attachment. May also be used with No. 1154 internal pulling attachment. Ends of legs are threaded 5/8”–18. Usable reach: 11-5/8”.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Max. Reach</th>
<th>Max. Spread</th>
<th>Screw Size</th>
<th>Notes / Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1063</td>
<td>18-1/2&quot;</td>
<td>5-3/4&quot;–11-3/4&quot;</td>
<td>1”–8 x 20”</td>
<td>Puller with No. 1104 legs, No. 24827 leg ends, No. 4120 hyd. ram, No. 32118 adjusting screw, and No. 24814 adjusting crank. 38 lbs.</td>
</tr>
<tr>
<td>1062</td>
<td>18-1/2&quot;</td>
<td>5-3/4&quot;–11-3/4&quot;</td>
<td>1”–8 x 20”</td>
<td>Puller only. 22 lbs.</td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 1062, 1063 (Reach equals leg length plus 2" with leg end caps.)

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1107</td>
<td>4-1/2&quot;</td>
</tr>
<tr>
<td>1106</td>
<td>9-1/2&quot;</td>
</tr>
<tr>
<td>1104</td>
<td>16-1/2&quot;</td>
</tr>
</tbody>
</table>

No. 1070, 1071 – 30-Ton Capacity
Can be used with Nos. 1126 and 1127 bearing pulling attachments or No. 680 pulley pulling attachment (two No. 8012 adapters are required to connect No. 680 to puller). Also may be used with No. 1166 internal pulling attachment. Ends of legs are threaded 1”–14. Usable reach: 12-1/8”.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1070</td>
<td>20-1/2&quot;</td>
</tr>
<tr>
<td>1071</td>
<td>20-1/2&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1076</td>
<td>24&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1109</td>
<td>8&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1110</td>
<td>18&quot;</td>
</tr>
</tbody>
</table>

No. 1076 – 50-Ton Capacity
Can be used with Nos. 1128 bearing pulling attachments. Ends of legs are threaded 1-1/4”–12. Usable reach: 13-3/8”. See page 125 to order threaded adapters for use with these pullers.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1076</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

Extra Legs (pair) for No. 1076 (Reach equals leg length plus 2-5/8” with leg end caps.)

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Leg Length &amp; Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1112</td>
<td>24&quot;</td>
</tr>
<tr>
<td>Tool No.</td>
<td>Leg Length &amp; Wt.</td>
</tr>
<tr>
<td>1113</td>
<td>34&quot;</td>
</tr>
</tbody>
</table>

### Hydraulic Grip-O-Matic® Puller

No. 1060-1080 Available in 10 to 50-ton capacities. Reliable single-acting Power Twin ram is matched with a versatile 2-jaw or 3-jaw puller. Lightweight ram can be used in other applications. You also get an adjusting screw, speed crank, and coupler where applicable. Hydraulic pump is not included; see index for pump listings.
Bearing Splitters
No. 1121-1130 These versatile accessories feature "knife-like" edges which are easily placed behind the part to secure a gripping surface, even when clearances are extremely limited. When used with an OTC Grip-O-Matic® puller, puller jaws grip attachment's outer edge; when used with a Push-Puller, puller legs are threaded into the attachment's two tapped holes.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>MAX. Spread</th>
<th>MIN. Spread</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1121</td>
<td>15/16&quot;</td>
<td>1/4&quot;</td>
<td>15/16&quot;–18</td>
<td>1-11/16&quot;</td>
<td>12 oz.</td>
<td>Use with puller Nos. 1020, 1022, &amp; 1023.</td>
</tr>
<tr>
<td>1122</td>
<td>2&quot;</td>
<td>1/8&quot;</td>
<td>3/8&quot;–16</td>
<td>2-7/16&quot;</td>
<td>1 lb., 4 oz.</td>
<td>Use with puller Nos. 1024, 1025, 1026, 1027, 7392, &amp; 7393.</td>
</tr>
<tr>
<td>1123</td>
<td>4-5/8&quot;</td>
<td>1/2&quot;</td>
<td>5/8&quot;–18</td>
<td>4-3/8&quot;</td>
<td>5 lbs.</td>
<td>Use with puller Nos. 1035, 1036, 1037, 1038, &amp; 927.</td>
</tr>
<tr>
<td>1124</td>
<td>5-3/4&quot;</td>
<td>1/2&quot;</td>
<td>5/8&quot;–18</td>
<td>6&quot;</td>
<td>12 lbs.</td>
<td>Use with puller Nos. 1035, 1040, 1041, 1042, 1065, 1063, &amp; 938.</td>
</tr>
<tr>
<td>1130</td>
<td>9&quot;</td>
<td>1/2&quot;</td>
<td>5/8&quot;–18</td>
<td>6&quot;</td>
<td>12 lbs., 9 oz.</td>
<td>Use with puller Nos. 1035, 1040, 1041, 1042, 1065, 1063, &amp; 938.</td>
</tr>
<tr>
<td>1126</td>
<td>8&quot;</td>
<td>5/8&quot;</td>
<td>1&quot;–14</td>
<td>7-1/8&quot;</td>
<td>19 lbs., 12 oz.</td>
<td>Use with puller Nos. 1047, 1043, &amp; 939.</td>
</tr>
<tr>
<td>1128</td>
<td>12-7/8&quot;</td>
<td>5&quot;</td>
<td>1-3/4&quot;–12&quot;</td>
<td>13&quot;</td>
<td>100 lbs.</td>
<td>Use with puller Nos. 1073, 1079.</td>
</tr>
</tbody>
</table>

A = Thread of tapped hole in adapter.  
B = Distance between adjusting screws.

Pulley Pulling Attachments
Attachment clamps down into V-groove to distribute load. Use with Grip-O-Matic® pullers or Push-Pullers.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>MAX. Spread</th>
<th>MIN. Spread</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>679</td>
<td>5-7/8&quot;</td>
<td>1-3/4&quot;</td>
<td>5/8&quot;–18</td>
<td>6&quot;</td>
<td>4 lbs., 4 oz.</td>
<td>Use with puller Nos. 1035, 1036, 1037, 1038, and 927.</td>
</tr>
</tbody>
</table>

Internal Pulling Attachments
Approved by leading bearing manufacturers, OTC’s internal pulling attachments remove bearing cups, oil seals, bushings, and other parts from blind holes quickly and easily. Each attachment is designed for use with a corresponding Push-Puller or slide hammer assembly.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>JAW</th>
<th>JAW</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1150</td>
<td>1-1/2&quot;–5&quot;</td>
<td>2-1/8&quot;</td>
<td>1&quot;–14</td>
<td>5/8&quot;–18</td>
<td>4 lbs., 4 oz.</td>
<td>Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 and 24833 puller screw.</td>
</tr>
<tr>
<td>1152</td>
<td>1-1/2&quot;–6&quot;</td>
<td>4&quot;</td>
<td>1&quot;–14</td>
<td>5/8&quot;–18</td>
<td>3 lbs., 8 oz.</td>
<td>Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 and 24833 puller screw.</td>
</tr>
<tr>
<td>1151</td>
<td>1-1/2&quot;–7&quot;</td>
<td>5-1/4&quot;</td>
<td>1&quot;–14</td>
<td>5/8&quot;–18</td>
<td>4 lbs., 8 oz.</td>
<td>Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 and 24833 puller screw.</td>
</tr>
<tr>
<td>1155</td>
<td>3&quot;–9&quot;</td>
<td>5-7/8&quot;</td>
<td>1-1/2&quot;–12</td>
<td>1&quot;–14</td>
<td>13 lbs., 8 oz.</td>
<td>Use with No. 939 Push-Puller.</td>
</tr>
<tr>
<td>1154</td>
<td>1-1/2&quot;–9&quot;</td>
<td>4&quot;</td>
<td>1–8</td>
<td>5/8&quot;–18</td>
<td>4 lbs., 8 oz.</td>
<td>Use with No. 1063 hyd. Push-Puller.</td>
</tr>
<tr>
<td>1156</td>
<td>3&quot;–9&quot;</td>
<td>5-7/8&quot;</td>
<td>1-1/4&quot;–7</td>
<td>1&quot;–14</td>
<td>13 lbs., 8 oz.</td>
<td>Use with No. 1071 hyd. Push-Puller.</td>
</tr>
</tbody>
</table>

Puller Screws

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Reach</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>24832</td>
<td>13-3/4&quot; long</td>
<td>5/8&quot;–18</td>
<td>1 lb.</td>
<td>Use with Nos. 1150, 1151, 1152, and 1153. Acts as a regular forcing screw when threaded directly into the block of pulling attachment.</td>
<td></td>
</tr>
<tr>
<td>24833</td>
<td>5-1/2&quot; long</td>
<td>5/8&quot;–18</td>
<td>6 oz.</td>
<td>Use with Nos. 1150, 1152, and 1153. Acts as a regular forcing screw when threaded directly into the block of pulling attachment.</td>
<td></td>
</tr>
</tbody>
</table>

4420 Pilot Bearing Pulling Attachment
• Use to pull a pilot bearing from the end of the crankshaft.
• Interchangeable jaws. One set of jaws covers a spread of 1/2" to 1-1/2". Other set of jaws covers a spread of 3/8" to 1-3/8". Both sets of jaws have a reach of 1".
• Reach has a min/max range of 3/16" to 1".
• Puller attaches to OTC and other slide hammers with 5/8"–18 thread.

4422 Pilot Bearing Puller
• Use to pull a pilot bearing from the end of the crankshaft.
• A restriction plate catches the bridge and prevents the jaws from spinning when force is engaged.
• The "Tee Handle" design is easy-to-use and eliminates need for other tools.
• Spread covers ranges of 1/2" to 1-1/2" and 3/8" to 1-3/8".
• Reach has a min/max range of 3/16" to 1-1/4".
**Pilot Bearing Pullers**

These very versatile pullers are built specially light duty for inside pulling jobs, and particularly for removing flywheel pilot bearings on automobiles, trucks, and tractors. Also very practical for pulling motor, generator, and magneto bearings.

Slide hammer unit is 17” long with a 1-3/4 lb. hammer, 1/2-20 threaded end.

**Special Slide Hammer Puller**

Ideal for pulling jobs in very close quarters, as in removal of small-bore bushings, bearings, oil seals, etc. Internal pulling attachment has a jaw spread of 1/2” to 1-3/8”, adjusted by turning the slide hammer handle. Handle end has a 1/2”–20 thread.

Slide hammer unit is 17” long with a 1-3/4 lb. hammer, 1/2-20 threaded end. with 1174 head assembly.

Head assembly only.

**Ten-Pound Slide Hammer Puller**

This heavy-duty slide hammer puller gets tough with those really stuck parts. It has all the features of our smaller versions – heat treated, 24” long, and a 5/8”–18 threaded end to adapt to any of OTC’s pulling attachments. The difference is the ten-pound hammer that gives you the extra muscle for really stubborn pulling jobs.

Slide hammer unit is 17” long with a 1-3/4 lb. hammer, 1/2-20 threaded end.

**Pulling Hook**

- Designed to be used with OTC No. 1155 (5 lb.) or No. 1156 (2-1/2 lb.) slide hammer, or other slide hammers having 5/8–18 threads.

- Designed to be used with OTC No. 1155 (5 lb.) or No. 1156 (2-1/2 lb.) slide hammer, or other slide hammers having 5/8–18 threads.

- This slide hammer puller attachment is used to remove seals, bearings, and other press-fit parts.

**Sliding Hammers**

- 22185 2-1/2 lb. sliding hammer.

- 34331 5 lb. sliding hammer.
Grip Wrench Adapters
- For grip wrenches using single-lead thread adjusting screw.
- Adapter threads onto a slide hammer with a 5/8"–18 thread

2-Jaw Spread

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Inside</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>44195</td>
<td>1-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>32054</td>
<td>3/4&quot;</td>
<td>2-3/8&quot;</td>
<td>–</td>
</tr>
<tr>
<td>44148</td>
<td>2-3/4&quot;</td>
<td>5-1/2&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>34698</td>
<td>1-1/4&quot;</td>
<td>3-1/2&quot;</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

3-Jaw Spread

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Inside</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>44195</td>
<td>1-1/2&quot;</td>
<td>4-3/4&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>32054</td>
<td>1&quot;</td>
<td>2-3/4&quot;</td>
<td>–</td>
</tr>
<tr>
<td>44148</td>
<td>3-1/4&quot;</td>
<td>6-1/4&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>34698</td>
<td>1-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>1-1/2&quot;</td>
</tr>
</tbody>
</table>

1176 Slide Hammer Puller Set
This useful set contains OTC’s popular No. 1176 reversible-jaw slide hammer puller, plus an assortment of special jaws and adapters. You get all the versatility of the No. 1176 (described fully on page 128), plus attachments for pulling various size pilot bearings, oil seals, bushings, timing gears, harmonic balancers, and other tightly fitted parts!

Set No. 1176 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1176</td>
<td>Slide hammer puller with 2-1/2 lb. hammer</td>
</tr>
<tr>
<td>44195</td>
<td>Medium jaw (3 include)</td>
</tr>
<tr>
<td>32054</td>
<td>Pilot bearing jaw (3 include)</td>
</tr>
<tr>
<td>34698</td>
<td>Short jaw (3 include)</td>
</tr>
<tr>
<td>44148</td>
<td>Long jaw (3 include)</td>
</tr>
<tr>
<td>27315</td>
<td>Puller hook. Removes oil seals, bearings, etc.</td>
</tr>
<tr>
<td>27241</td>
<td>2-way cross head</td>
</tr>
<tr>
<td>36578</td>
<td>Uses cap screws up to 3/8&quot; diameter. Spread with 3/8&quot; dia. cap screws: 1-7/8&quot; – 5-5/8&quot;</td>
</tr>
</tbody>
</table>

1179 “Silver Slapper” 8-Way Slide Hammer Puller Set
You can pull flange-type rear axles, stubborn oil seals and bearings, and other press-fit parts. Jaws can be set up for 2/3-way internal or external pulling jobs.

Application Examples

- 2-Jaw External
- 3-Jaw External
- Jaws Reversed

Set No. 1179 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1155</td>
<td>Slide hammer with 5 lb. hammer</td>
</tr>
<tr>
<td>7372</td>
<td>Rear axle pulling attachment</td>
</tr>
<tr>
<td>24544</td>
<td>3-way cross-head</td>
</tr>
<tr>
<td>24545</td>
<td>Cone</td>
</tr>
<tr>
<td>27241</td>
<td>2-way cross-block</td>
</tr>
<tr>
<td>27315</td>
<td>Puller hook attachment</td>
</tr>
<tr>
<td>34698</td>
<td>Pulling jaws (3) for internal or external pulling jobs</td>
</tr>
<tr>
<td>205378</td>
<td>Grip wrench adapter w/single lead</td>
</tr>
<tr>
<td>205377</td>
<td>Dent puller attachment</td>
</tr>
</tbody>
</table>

6627 Grip Wrench Adapters
- For grip wrenches using single-lead thread adjusting screw.
- Adapter threads onto a slide hammer with a 5/8"–18 thread

205378 Grip wrench threads onto a 7/16"–14 end of adapter for pulling use
557479 Grip wrench threads onto a 5/16"–18 end of adapter for pulling use
557480 Grip wrench threads onto a 1/4"–20 end of adapter for pulling use

4579 9-Way Slide Hammer Puller Set
- Pulls flange-type rear axles and most front-wheel drive hubs.
- Internal and external jaws provide a variety of combinations to pull bearings, gears and seals.
- Two- and three-way cross blocks and cone provide the perfect jaw configuration for most jobs.
- Set also includes a grip wrench adapter and a dent puller attachment for sheet metal or other unique pulling requirements.
- Designed for use with other OTC 5/8”–18 thread slide hammer attachments.
- Packaged in blow-molded case.

7792 Rear Axle Puller Set
The tools you need for flange-type rear axle and bearing removal on most late model passenger cars and light trucks. Set includes the No. 7374 rear axle pulling plate and a 5 lb. slide hammer. The axle bearing pullers, used with the slide hammer, make short work of removing semi-floating rear axle bearings.

Set No. 7792 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7374</td>
<td>Rear axle pulling plate with a 5 lb. slide hammer</td>
</tr>
<tr>
<td>7495A</td>
<td>Rear axle bearing puller. Fits a min. bearing tube I.D. of 1&quot; and a max. axle tube I.D. of 1-7/8&quot;</td>
</tr>
<tr>
<td>7496A</td>
<td>Rear axle bearing puller. Fits min. bearing tube I.D. of 5/16&quot; and max. axle tube I.D. of 2-3/8&quot;</td>
</tr>
<tr>
<td>7497A</td>
<td>Rear axle bearing puller. Fits min. bearing tube I.D. of 1-3/8&quot; and max. axle tube I.D. of 2-7/8&quot;</td>
</tr>
<tr>
<td>27315</td>
<td>Puller hook for use with 5 lb. slide hammer in set. Removes oil seals, bearings, etc.</td>
</tr>
</tbody>
</table>

7794 Rear Axle Puller Set
Same contents as No. 1179 Silver Slapper set, but includes plastic carrying/storage case.

7497A Rear Axle Puller Set
Same contents as No. 1179 Silver Slapper set, but includes plastic carrying/storage case.

7948 Ten-way slide hammer puller set
8-Way and 10-Way Slide Hammer Puller Sets
Our two most popular slide hammer puller sets—the Silver Slapper and the Silver Slapper Plus—now come packaged in a convenient plastic, blow-molded carrying/storage case. They’re the same great sets with the same versatile pullers and attachments, now made even better with the addition of an organizer case. Or, if you already own either our No. 1179 or No. 1189 puller sets, we offer the plastic case separately. The case will hold either set.

8-Way and 10-Way Slide Hammer Puller Sets
Our two most popular slide hammer puller sets—the Silver Slapper and the Silver Slapper Plus—now come packaged in a convenient plastic, blow-molded carrying/storage case. They’re the same great sets with the same versatile pullers and attachments, now made even better with the addition of an organizer case. Or, if you already own either our No. 1179 or No. 1189 puller sets, we offer the plastic case separately. The case will hold either set.

7947 Eight-way slide hammer puller set
Same contents as No. 1179 Silver Slapper set, but includes plastic carrying/storage case.

63106 Puller storage case.
Blow-molded plastic.
Differential Bearing Pullers

OTC “GripLock” Pullers
Manufactured to our rigorous specifications to ensure the quality professionals expect from OTC:
• Pressure bearing yoke cap holds jaws in place for ease of set up - in any orientation.
• 2 or 3 jaw application.
• Both external and internal pulling action.
• “Live Center” action forcing screw.
• Professional finished for long lasting durability...

464  Puller with a 4" maximum reach, 5” to 4” spread.
465  Puller with a 7” maximum reach, 3” to 7” spread.

Differential Bearing Pullers
For removing differential side carrier bearings on a wide variety of passenger cars and light trucks.
Use with step plate adapters Nos. 8060, 8061, 8063, and 8064. (Step plate adapters are not included with 1028 or 1031. See page 125.)

1028  Puller with a 3-1/2” maximum reach, 1-1/4” to 4-1/2” spread. Primarily for servicing Ford products.
1031  Puller with a 3-1/4” maximum reach, 6” maximum spread. For servicing most General Motors, American Motors, and Chrysler products.

Bearing Cup Remover
Ideal for servicing hubs on today’s popular front-wheel drive small cars. The cone holds the jaws in place during pulling. Perfect for pulling internal bearing cups, seals, bushings, etc. Jaw spread: 15/16” to 3-1/4”, reach to 3-1/2”. Use with any slide hammer having a 5/8”–18 thread (OTC No. 1155 or No. 1156 or the No. 927 Push-Puller).

6542  Bearing Cup Remover.
7136  Bearing Cup Remover. Similar to Ford 308-047.

4520 Differential Side Bearing Pullers
• Use to remove differential side carrier bearing. Works on a wide variety of cars and light-duty trucks.
• Includes four step plate adapters to fit carrier bearings.
• Reach: 1-5/8". Spread: 2-5/8” to 3-3/8”. Forcing screw is 3/4”-16 x 6-11/16” lg.

Set includes:
4520-1  Forcing Screw / Cross Block Assembly
4520-2  Puller Jaws / Pins (set of two each)
4520-3  Puller Jaws Retaining Yoke
4520-4  Step Plate Adapters (set of four)

Reach: 1-5/8”
Spread: 2-5/8” on inside holes in crossbar
3-3/8” on outside holes in crossbar
Forcing screw: 3/4”-16 mm x 6-11/16” lg.
Adapter sizes: 15/16” to 1-3/4” diameter

1181 Multipurpose Puller Set
This assortment of puller tools gives you a wide range of job versatility. You get a 5 lb. slide hammer puller, hub puller, two sizes of OTC Grip-O-Matic® jaw-type pullers, a bearing pulling attachment, plus a cross-bar gear and pulley puller, all contained in a handy plastic storage case.

Set No. 1181 consists of:

No.  Description
1177  Slide hammer puller with a 5 lb. hammer, 2-way and 3-way heads. Reversible: either two or three jaws may be used to handle both “inside” and “outside” pulling jobs.
7208A  Front hub puller for servicing front-wheel-drive cars. Includes a spare locknut, which permits use with a No. 1177 slide hammer for rear axle flanges.
1023  2-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 3-3/8” max. reach,4-3/4” max. spread.
1027  5-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 5-1/2” max. reach, 7” max. spread.
7393  Bar-type gear and pulley puller with a 5-1/2” long screw. Includes two hex head cap screws,3/8”-16 x 3” long. Spread range: 1-1/2” to 4-1/4”.
1122  Bearing pulling attachment for use with No. 1027 and No. 7393 pullers. Has 2” max spread, 1/8” min. spread.

1184 Cone-type Puller
Reversible jaws permit handling of both internal and external pulling jobs. The 2-way/3-way head permits assembly of puller to suit the job at hand. Turning the cone on the puller head securely locks its jaws on the part to be removed. Puller reach: 2-7/8”

2-jaw spread:
Inside: 1-1/2” to 4-1/2”
Outside: 3/4” to 5”
3-jaw spread:
Inside: 1-1/2” to 4-3/4”
Outside: 1” to 4-1/2”

Pilot Bearing Pullers
Designed to pull flywheel pilot bearings in close quarters where a slide hammer cannot be used. Operates on many models with engine in chassis.

7318 Pilot bearing puller. Capacity: 1/2” to 1-1/2”. I.D. reach: 3/4”.
7319 Pilot bearing puller. Capacity: 7/8” to 2”. I.D. reach: 1”.

Differential Side Bearing Pullers

For removing differential side carrier bearings on a wide variety of passenger cars and light trucks.

1122  Bearing pulling attachment for use with No. 1027 and No. 7393 pullers. Has 2” max spread, 1/8” min. spread.
 Blind Hole Bearing Puller Set

- For pulling jobs requiring an internal pull.
- Set includes four collets, which fit a wide range of applications. Select the appropriate sized collet by comparing it with the application.
- Insert the collet, expand it to fit the hole, then attach the slide hammer.
- Four collet sizes: 7/16” to 1/2”, 9/16” to 11/16”, 5/8” to 1”, and 1” to 1-1/4”.
- Set includes a 2-1/2 lb. slide hammer with a T-handle.
- Housed in a blow-molded plastic storage case.

A/C Clutch Pulley Puller Set

- For removal of stubborn air conditioning clutch pulleys. Also can be used on many alternator, generator, power steering, and crankshaft pulleys, harmonic balancers, and fiber timing gears.
- Set includes drop-forged components: one 3/4”-16 x 16” live center forcing screw, 5-1/2” crossbar with 3 spread settings, two pairs of jaws, and a clamp bolt.
- Spread: 3” to 5”; Reach: 1” to 5”.
- Includes a blow-molded plastic case.

7-Ton Bar-Type Puller/Bearing Separator Set

- Includes a Bearing Splitter with 4” capacity, two sets of hex push puller legs, a 8” bar type puller head mated with a custom thread forcing screw.
- Now service and maintenance professionals have a Puller/Bearing set for tough jobs, up to 7-tons, larger applications, and greater reach 8” to 16”.
- As a stand alone puller/bearing splitter set or as a compliment to the 4518 version, the 4517 7-Ton Puller/Bearing Separator Set gives your maintenance/service shop the expanded capability to keep more business in house.

Multipurpose Bearing and Pulley Puller Set

- For a wide range of pulling jobs, including: bearings, alternators, generators, power steering and crankshaft pulleys, timing gears, and harmonic balancers.
- Set includes drop-forged components, which can be used in a variety of combinations. Contents of Set: 2 – Forcing Screws (Live Center): 3/4”-16 x 6-11/16” and 3/4”-16 x 5 1/2” – Cross-bar Yokes: 3 pin-hole @ 3/4”-16 x 5 1/2”, 2 pin-hole @ 2-3/8” to 3-3/8” 2 – Clamp Bolts 3 – Pairs of Puller Jaws: 1-3/8” Max, 1-5/8” Max, 1-3/4” Max 1 – Pair of Jaw Pins with Ball Spring 3 – Pairs of Capped Bolts
- Spread: 3” to 5”; Reach: 1” to 2-1/4”.
- Housed in a blow-molded plastic storage case.

5-Ton Bar-Type Puller/Bearing Separator Set

- This combination set includes our two most popular bearing “splitters” (2” and 3”), four sets of hex push-puller legs and a bar-type puller head with a 9/16” forcing screw. Separator tools are used with bar puller and legs for a wide variety of pulling jobs.
- The 5” puller cross-bar with a 6-1/4” forcing screw or each of the bearing separators may also be used separately or in combination with other pullers or tools.
- A blow-molded plastic storage case keeps set contents organized and protected from loss.
**Pullers**

**1182**
Lock-on, Jaw-type Puller Set
Components can be assembled to create several versatile puller versions for both internal and external pulling tasks. The puller head is turned to securely lock the jaws onto the part being removed. Both a 2-way and 3-way puller head are included, plus three long-reach and three short-reach puller jaws. Plastic storage box included. Easily removes gears, bearings, timing gears, harmonic balancers, and other press-fitted parts.

**7392**
Puller with 13” long screw
**7393**
Puller with 5-1/2” long screw

**Gear and Pulley Pullers**
These tools are perfect for removing timing gears, fan pulleys, harmonic balancers, and many other parts having tapped holes.
- Each puller will spread from 1-1/2” to 4-1/4”.
- The puller blocks are 4-7/8” wide, tapped 5/8” – 18 UNF.
- Two hex head cap screws, 3/8”-16 x 3” long.

**7392**
Puller with 13” long screw
**7393**
Puller with 5-1/2” long screw

**1180**
10-Ton Capacity Push-Puller Set
Contains three popular OTC bar-type pullers in one versatile set, packed in a handy plastic storage case. Tools included permit damage-free pulling of gears, bearings, harmonic balancers, and other parts having tapped holes. Ideal for servicing heavy-duty trucks, off-road construction equipment, and machinery.

Set No. 1180 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>927</td>
<td>10-ton Push-Puller, 8-3/8” reach, 2-1/8” to 7-1/4” spread. 6-3/4” puller legs. Other leg sizes are available separately. (See pages 124, 126.)</td>
</tr>
<tr>
<td>522</td>
<td>Gear and pulley puller; spread range when used with 1/2” cap screws: 2” to 7-3/4”. Cap screws not included.</td>
</tr>
<tr>
<td>7393</td>
<td>Gear and pulley puller with standard 5-1/2” forcing screw, plus special 13” forcing screw. Includes two hex head cap screws, 3/8”-16 x 3” long. Special range: 1-1/2” to 4-1/4”.</td>
</tr>
</tbody>
</table>

**1183**
Bearing Splitter Combo Set
This combo pack contains four of OTC’s most popular bearing splitters, plus a pulley pulling attachment. A rugged organizer case is included, enabling you to keep the tools together for instant use.

Set No. 1183 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1121</td>
<td>Bearing splitter. Has 15/16” max. spread and 1/4” min. spread.</td>
</tr>
<tr>
<td>1122</td>
<td>Bearing splitter. Has 2” max. spread and 1/8” min. spread.</td>
</tr>
<tr>
<td>1123</td>
<td>Bearing splitter. Has 4-5/8” max. spread and 1/2” min. spread.</td>
</tr>
<tr>
<td>1130</td>
<td>Bearing splitter. Has 9” max. spread and 1/2” min. spread.</td>
</tr>
<tr>
<td>679</td>
<td>Pulley pulling attachment with a 5-7/8” max. and 1-3/4” min. spread.</td>
</tr>
</tbody>
</table>

**4526**
Heavy-Duty Single Pressure Beam Bearing Splitter Set
- Single point of adjustment allows quick attachment of splitter to the application.
- Pressure beam provides the ultimate in secure gripping surface.
- Push Puller is thread matched to the splitter.
- Interchangeable legs shorten or lengthen the range of pull.
- Designed of high quality tool grade materials for a lifetime of use.
- For use on most bushing or bearing jobs up to 4” in diameter.

**4527**
5-Ton Single Pressure Beam Bearing Splitter Set
- Single point of adjustment allows quick attachment of splitter to the application.
- Pressure beam provides the ultimate in secure gripping surface.
- Push Puller is thread matched to the splitter.
- Interchangeable legs shorten or lengthen the range of pull.
- Designed of high quality tool grade materials for a lifetime of use.
- For use on most bushing or bearing jobs up to 3” in diameter.

**6614**
Heavy-Duty Gear Puller
The OTC 6614 Heavy Duty Gear Puller will remove gears up to 7-1/4” in diameter, including most cam gears. Rated at 8 tons, this puller is stout enough for almost any heavy-duty application and includes a pair of metric bolts for most applications. The slimmer design of the cross block gives more room to set up in tight quarters. The tempered steel, rust inhibitor-coated bolts are graded 10.9 and are sized M12 x 1.75” and are 90mm in length. Cam gears giving you fits? Covered by OTC’s Lifetime Warranty.

**522**
Large Gear and Pulley Puller
Using this tool, you can easily remove a wide range of gears, pulleys, or other parts that have tapped holes.
- The spread is 2” to 7-3/4”. Its block is 8-1/4” wide, and its forcing screw is 3/4”-16 x 11-5/8” long.
- Accommodates any cap screws up to 1/2” diameter.

**6614**
Heavy-Duty Gear Puller
The OTC 6614 Heavy Duty Gear Puller will remove gears up to 7-1/4” in diameter, including most cam gears. Rated at 8 tons, this puller is stout enough for almost any heavy-duty application and includes a pair of metric bolts for most applications. The slimmer design of the cross block gives more room to set up in tight quarters. The tempered steel, rust inhibitor-coated bolts are graded 10.9 and are sized M12 x 1.75” and are 90mm in length. Cam gears giving you fits? Covered by OTC’s Lifetime Warranty.

**10-Ton Capacity Push-Puller Set**
Contains three popular OTC bar-type pullers in one versatile set, packed in a handy plastic storage case. Tools included permit damage-free pulling of gears, bearings, harmonic balancers, and other parts having tapped holes. Ideal for servicing heavy-duty trucks, off-road construction equipment, and machinery.

Set No. 1180 consists of:

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>927</td>
<td>10-ton Push-Puller, 8-3/8” reach, 2-1/8” to 7-1/4” spread. 6-3/4” puller legs. Other leg sizes are available separately. (See pages 124, 126.)</td>
</tr>
<tr>
<td>522</td>
<td>Gear and pulley puller; spread range when used with 1/2” cap screws: 2” to 7-3/4”. Cap screws not included.</td>
</tr>
<tr>
<td>7393</td>
<td>Gear and pulley puller with standard 5-1/2” forcing screw, plus special 13” forcing screw. Includes two hex head cap screws, 3/8”-16 x 3” long. Special range: 1-1/2” to 4-1/4”.</td>
</tr>
</tbody>
</table>
Flange-Type Pullers

**7790 Flange-Type Puller Set (Grade 5)**
- Versatile puller capable of removing a wide variety of components having tapped pulling holes, including harmonic balancers, gears, crankshaft pulleys, etc.
- Capable of handling 2- or 3-way bolt pulling applications.
- Works on many cars, pickups, SUVs, and small engines.
- Carries the OTC Lifetime Marathon Warranty® against defects in workmanship and material.

Contents of set:
- Puller flange: adapts to bolt circle dia. of 1-1/2" to 4-5/8".
- Shaft protector: 1-3/16" dia. x 3/4" thick.
- Three each of the following flat washers: 1/4"; 5/16"; 3/8".
- Three each of the following bolt sizes:
  - 1/4"-28 x 3" lg.
  - 5/16"-24 x 3" lg.
  - 5/16"-18 x 2" lg.
  - 3/8"-16 x 3" lg.
  - 3/8"-16 x 4-1/2" lg.

**7793 Master Bolt Grip Set (Grade 8)**
- Multi-Purpose applications such as steering wheels, flywheels, harmonic balancers, pulleys and gears with tapped holes.

Contents of set:
- 4-way slotted puller yoke and 2 lengths of hardened “live-center” forcing screws – a set of 3 interchangeable forcing screw tips is included to optimize pressure and prevent “walking”.
- Blow molded case to prevent spilling and each bolt size is molded into the storage compartment.
- Three each of the following bolt sizes:
  - M8 x 1.25 x 45mm
  - M8 x 1.25 x 45mm
  - 1/4-28 UNF x 3"
  - M8 x 1.25 x 65mm
  - 5/16-18 UNC x 3.5"
  - M8 x 1.25 x 90mm
  - M8 x 1.25 x 90mm
  - M8 x 1.25 x 90mm
  - M10 x 1.5 x 35mm

Special Stepped Bolts – 1990 & Newer

**7403 Steering Wheel, Pulley, and Flywheel Puller**
Here’s a puller that works in a variety of applications. It pulls steering wheels on most late model cars. It also works as a regular 2/3-way puller to remove pulleys and small engine flywheels. Cap screws included (pairs): 3/8-16 x 3-1/2 in.; 5/16-18 x 3-1/2 in.; 5/16-24 x 3-1/2 in.; M8-1.25 x 90 mm; and 5/16-18 x 4 in. (SIR).

- Works on domestic cars with or without collapsible steering columns.

**7018 Flange-type Puller**
- Pulls harmonic balancers, timing gears, and other parts having two or three tapped holes.
- Slotted holes in puller body permit cap screws to be positioned to handle bolt circle diameters from 1-1/2" to 4-5/8".
- Three each of two cap screw sizes included: 3/8"-24 x 3" long and 3/8"-16 x 3" long.
**1677**

**17-1/2 Ton Capacity Puller Set**
This puller set gives you the versatility you want and the tonnage capacity you need to tackle parts removal and installation on many models of cars, trucks, tractors, power shovels, road building machinery, etc. Maintenance operations involving the removal and replacement of gears, bearings, wheels, and other press-fit parts can be done with ease.

**Set No. 1677 consists of:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>938</td>
<td>Push-Puller with 9-1/2&quot; legs</td>
<td>8037</td>
<td>Internal threaded adapters</td>
</tr>
<tr>
<td>1104</td>
<td>16-1/2&quot; legs for 938 (pair)</td>
<td>8038</td>
<td>5/8&quot; – 18 x 5/8&quot; – 18</td>
</tr>
<tr>
<td>1024</td>
<td>2-jaw puller</td>
<td>8039</td>
<td>5/8&quot; – 18 x 3/4&quot; – 16 (2)</td>
</tr>
<tr>
<td>1036</td>
<td>2-jaw puller</td>
<td>8040</td>
<td>5/8&quot; – 18 x 1&quot; – 14</td>
</tr>
<tr>
<td>1039</td>
<td>2-jaw puller</td>
<td>8041</td>
<td>5/8&quot; – 18 x 1-1/8&quot; – 12</td>
</tr>
<tr>
<td>1130</td>
<td>Bearing splitter</td>
<td>8043</td>
<td>5/8&quot; – 18 x 1-1/2&quot; – 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1675</td>
<td>13-Ton Capacity Puller Set</td>
</tr>
</tbody>
</table>

This versatile 13-ton capacity puller set removes gears, bearings, shafts, pinions, bearing outer races, and other tightly fitted parts. The set includes a Push-Puller, Grip-O-Matic® pullers, bearing pulling attachments, specialized pullers, and many accessories. You can work on all makes and models of cars and light trucks with this set.

**Set No. 1675 consists of:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>927</td>
<td>Push-Puller with 6-3/4&quot; legs</td>
<td>1101</td>
<td>15-3/4&quot; legs for 927 (pair)</td>
</tr>
<tr>
<td>1022</td>
<td>2-jaw puller</td>
<td>1024</td>
<td>2-jaw puller</td>
</tr>
<tr>
<td>1035</td>
<td>2-jaw puller</td>
<td>1039</td>
<td>2-jaw puller</td>
</tr>
<tr>
<td>7392</td>
<td>Gear and pulley puller</td>
<td>518</td>
<td>Flange-type puller</td>
</tr>
<tr>
<td>7403</td>
<td>Steering wheel puller</td>
<td>1170</td>
<td>Pilot bearing puller</td>
</tr>
<tr>
<td>1176</td>
<td>Slide hammer puller</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Set No. 1676 consists of:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1026</td>
<td>2/3-jaw puller</td>
<td>7311A</td>
<td>Pitman arm puller</td>
</tr>
<tr>
<td>1037</td>
<td>2/3-jaw puller</td>
<td>1122</td>
<td>Bearing splitter</td>
</tr>
<tr>
<td>7392</td>
<td>Gear and pulley puller</td>
<td>1123</td>
<td>Bearing splitter</td>
</tr>
<tr>
<td>518</td>
<td>Flange-type puller</td>
<td>7372</td>
<td>Rear axle pulling adapter</td>
</tr>
<tr>
<td>7403</td>
<td>Steering wheel puller</td>
<td>43888</td>
<td>Long jaws for No. 1026 (3)</td>
</tr>
<tr>
<td>1170</td>
<td>Pilot bearing puller</td>
<td>43892</td>
<td>Long jaws for No. 1037 (3)</td>
</tr>
<tr>
<td>1177</td>
<td>Slide hammer puller</td>
<td>18886</td>
<td>Metal storage box</td>
</tr>
</tbody>
</table>

**1676 Strong Box Puller Set**
Here’s a set of pullers that gives you almost unheard of versatility. You get eight pullers, five attachments, and extra puller jaws. They enable you to pull gears, bearings, pulleys, wheels, and more on cars and light trucks. All these tools are contained in a rugged, lockable metal storage cabinet you can either mount on a wall or stand on a work bench, so they are handy when you need them. Just imagine the jobs you can do with this set!

**Set No. 1676 consists of:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1026</td>
<td>2/3-jaw puller</td>
</tr>
<tr>
<td>1037</td>
<td>2/3-jaw puller</td>
</tr>
<tr>
<td>7392</td>
<td>Gear and pulley puller</td>
</tr>
<tr>
<td>518</td>
<td>Flange-type puller</td>
</tr>
<tr>
<td>7403</td>
<td>Steering wheel puller</td>
</tr>
<tr>
<td>1170</td>
<td>Pilot bearing puller</td>
</tr>
<tr>
<td>1177</td>
<td>Slide hammer puller</td>
</tr>
</tbody>
</table>

**16886 Storage box only. 29-1/2" wide x 25-3/4" high x 10" deep.**

**1670 Board (3’ x 4’) for storing No. 1675 set (not included with set).**

**16886 Metal storage box.**
Hydraulic Puller Sets
17-1/2, 30-, and 50-Ton Capacity – Individual items in the sets are fully described elsewhere in this catalog . . . consult index.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>1688</th>
<th>1689</th>
<th>1690</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HYDRAULICS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4012A</td>
<td>Single stage hydraulic hand pump assy.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4120A</td>
<td>17-1/2 ton ram with threaded insert</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4121A</td>
<td>30-ton ram with threaded insert</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>4122A</td>
<td>50-ton ram with threaded insert</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>24815</td>
<td>Tee adapter</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>9650</td>
<td>Pressure gauge</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>9767</td>
<td>Hydraulic hose – 6 foot</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>9798</td>
<td>Hose half coupler with dust cap</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>PULLERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1062</td>
<td>17-1/2 ton Push-Puller with 16-1/2&quot; legs</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1066</td>
<td>17-1/2 ton 3-jaw hydraulic puller</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>1070</td>
<td>30-ton hydraulic Push-Puller with 18&quot; legs</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1074</td>
<td>30-ton 3-jaw hydraulic puller</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1076</td>
<td>50-ton hydraulic Push-Puller with 24&quot; legs</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1080</td>
<td>50-ton 3-jaw hydraulic puller</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACCESSORIES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1105</td>
<td>Puller leg – 22-1/2&quot;</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1111</td>
<td>28&quot; legs for No. 1070</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1113</td>
<td>34&quot; legs for No. 1076</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1127</td>
<td>Bearing pulling attachment</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>1130</td>
<td>Bearing pulling attachment</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>1154</td>
<td>Bearing cup pulling attachment</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1166</td>
<td>Bearing cup pulling attachment</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>20144</td>
<td>Pushing adapter</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>24814</td>
<td>Speed crank</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>27198</td>
<td>Speed crank</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28228</td>
<td>Pushing adapter</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>28229</td>
<td>Ram cap</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28230</td>
<td>Ram cap for No. 1076</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>29595</td>
<td>Speed crank</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32118</td>
<td>Ram adjusting screw</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32698</td>
<td>Adjusting screw</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34510</td>
<td>Pushing adapter</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34755</td>
<td>Pushing adapter</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>34758</td>
<td>Adjusting screw</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41226</td>
<td>2-way head for No. 1074</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>41224</td>
<td>2-way head for No. 1066</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>50449</td>
<td>2-way head for No. 1080</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>8020</td>
<td>1&quot;–8 F. x 5/8&quot;–18 M. threaded adapter</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8023</td>
<td>1-1/4&quot;–12 F. x 1&quot;–14 M. threaded adapter (2)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8028</td>
<td>1-5/8&quot;–5-1/2 F. x 1&quot;–8 M. threaded adapter</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>8029</td>
<td>1-5/8&quot;–5-1/2 F. x 1&quot;–14 M. threaded adapter</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>8036</td>
<td>Female threaded adapter 1&quot;–14 x 1&quot;–14 (2)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8038</td>
<td>Female threaded adapter 5/8&quot;–18 x 3/4&quot;–16 (2)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Hydraulic Puller Sets

**PULLERS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>1679</th>
<th>1680</th>
<th>1681</th>
<th>1682</th>
<th>1683</th>
</tr>
</thead>
<tbody>
<tr>
<td>1025</td>
<td>2-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1027</td>
<td>5-ton capacity 2/3-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1035</td>
<td>2-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1039</td>
<td>2-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1062</td>
<td>17-1/2 ton cap. hyd. Push-Puller w/16-1/2&quot; legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1105</td>
<td>22-1/2&quot; legs for No. 1062 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1106</td>
<td>9-1/2&quot; legs for No. 1062 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1107</td>
<td>4-1/2&quot; legs for No. 1062 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1070</td>
<td>30-ton cap. hyd. Push-Puller with 18&quot; legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1109</td>
<td>8&quot; legs for No. 1070 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1111</td>
<td>28&quot; legs for No. 1070 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1076</td>
<td>50-ton cap. hyd. Push-Puller with 24&quot; legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1113</td>
<td>34&quot; legs for No. 1076 (pair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1066</td>
<td>17-1/2 ton 3-jaw Grip-O-Matic® puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41224</td>
<td>17-1/2 ton 2-jaw puller head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1074</td>
<td>30-ton 3-jaw hyd. puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1080</td>
<td>50-ton 3-jaw hyd. puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50449</td>
<td>50-ton 2-jaw puller head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1037</td>
<td>Combination 2/3-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41226</td>
<td>30-ton 2-jaw puller head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43892</td>
<td>Long jaws for No. 1037 (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1041</td>
<td>Combination 2/3-jaw puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30902</td>
<td>Long jaws for No. 1041 (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1170</td>
<td>Pilot bearing puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1176</td>
<td>Slide hammer puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7392</td>
<td>Gear and puller puller</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24833</td>
<td>Short forcing screw for No. 7392</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>1679</th>
<th>1680</th>
<th>1681</th>
<th>1682</th>
<th>1683</th>
</tr>
</thead>
<tbody>
<tr>
<td>8005</td>
<td>5/8&quot;–18 F x 3/8&quot;–16 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8006</td>
<td>5/8&quot;–18 F x 1/2&quot;–20 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8007</td>
<td>5/8&quot;–18 F x 1/2&quot;–13 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8010</td>
<td>5/8&quot;–18 F x 5/8&quot;–11 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8013</td>
<td>5/8&quot;–18 F x 3/4&quot;–16 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8015</td>
<td>5/8&quot;–18 F x 3/4&quot;–10 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Accessory Sets

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>1679</th>
<th>1680</th>
<th>1681</th>
<th>1682</th>
<th>1683</th>
</tr>
</thead>
<tbody>
<tr>
<td>8017</td>
<td>5/8&quot;–18 F x 7/8&quot;–14 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8018</td>
<td>5/8&quot;–18 F x 7/8&quot;–9 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8019</td>
<td>5/8&quot;–18 F x 1&quot;–14 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8020</td>
<td>1&quot;–8 F x 5/8&quot;–18 M threaded adapter (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8021</td>
<td>1&quot;–8 F x 1&quot;–14 M threaded adapter (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8022</td>
<td>1&quot;–14 F x 5/8&quot;–18 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8025</td>
<td>1-1/4&quot;–7 F x 5/8&quot;–18 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8027</td>
<td>1-1/4&quot;–12 F x 1&quot;–14 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8023</td>
<td>1-1/4&quot;–12 F x 1-3/4&quot;–12 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8024</td>
<td>1-1/4&quot;–12 F x 1-1/4&quot;–12 M threaded adapter (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8029</td>
<td>1-1/4&quot;–12 F x 1&quot;–14 M threaded adapter (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8036</td>
<td>1-1/4&quot;–14 F x 1&quot;–14 M threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8058</td>
<td>5/8&quot;–18 F x 3/4&quot;–16 F threaded adapter (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8056</td>
<td>Shaft protector set</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8075</td>
<td>Step plate adapter set</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>679</td>
<td>Pulley pulling attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>680</td>
<td>Pulley pulling attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10215</td>
<td>Internal threaded adapter set</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1154</td>
<td>Bearing cup pulling attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1166</td>
<td>Bearing cup pulling attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34479</td>
<td>Reducing adapter for use with No. 1166</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1122</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1123</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1126</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1127</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1128</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1130</td>
<td>Bearing splitter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24814</td>
<td>Speed crank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24815</td>
<td>Tee adapter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24829</td>
<td>Short bolt (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24832</td>
<td>Special puller forcing screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27198</td>
<td>Speed crank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29595</td>
<td>Speed crank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28228</td>
<td>Ram cap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28229</td>
<td>Ram cap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32118</td>
<td>Ram adjusting screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32698</td>
<td>Ram adjusting screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34758</td>
<td>Ram adjusting screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34755</td>
<td>Pushing adapter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201923</td>
<td>Pushing adapter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Photo for illustrative purposes only.
For complete set contents, see chart below. Individual items in the sets are fully described elsewhere in this catalog, consult index.
ENGINE / FUEL / OIL
- Oil Filter Wrenches ........................................ 138
- Hose Pliers ......................................................... 138
- Piston and Valve Tools ........................................ 139
- Cam & Timing Tools ........................................... 139 – 140
- Engine Testing Tools, Vacuum Test Kit .................. 141

DRIVELINE / TRANSMISSION
- Flywheel / Clutch / Primary Tools ...................... 142 – 146
- Chain / Belt Tools ............................................... 144
- Flange-Type Pullers ............................................. 145 – 146

CHASSIS / BODY
- Steering & Suspension Tools ................................. 147
- Bearing / Body Tools ............................................ 148

WHEEL / BRAKE
- Tire / Brake / Spoke Tools ................................. 149 – 150

ELECTRICAL
- Battery / Wire / Testing Tools ................................. 151 – 152

FASTENERS
- Torx® Bits / Allen Wrenches ................................ 153

GENERAL
- Bushing / Hose / Press / Lift ................................. 154 – 158
- Torque Wrenches .............................................. 156
- Hammers / Punches / Chisels ............................... 156 – 157
- Works Lights / Holding Fixture ............................. 158
4565 Swivel Handle Oil Filter Wrench
- Fits filters ranging from 2-1/2” to 3-1/8” (64 mm to 80 mm) in diameter.
- Features a 1” wide stainless steel band for positive grip on the filter; swivel handle makes it easy to turn filters in hard-to-reach areas.

4568 Oil Filter Wrench, 2 way, 3 leg
- Fits filters ranging from 2-1/2” to 5-1/4” (65 mm to 135 mm) in diameter.
- To turn the tool, use a 1/2” ratchet in the ratchet drive or a 13/16” wrench on the nut.
- Knurled legs provide extra gripping power.

4896 Oil Filter Ring
- Slim wrench provides clearance around oil coolers and crank position sensor. Use on 14 flute HD filters. 3/8” square drive.

6901 Oil Filter Socket
- Fits Wix oil filters on S&S Engine applications, as well as other filters with 74mm x 15 flutes.

6905 Oil Filter Socket
- Fits Polaris oil filters, as well as other filters with 66.5mm x 14 flutes.

4898 Oil Filter Socket
- Fits Polaris oil filters, as well as other filters with 64mm x 14 flutes. Similar to Polaris No. PU-50105.

6906 Oil Filter Wrench
- For HD Street models as well as other filters with 65mm x 14 flutes. Similar to HD-S1453.

5911A Drain Plug PRO
- The OTC 5911A magnetically attaches to pre-loosened oil pan drain plugs so you can remove them without dropping and avoid getting burned with hot oil.
- The patented design provides universal application to hex heads. A flexible shaft can be used in virtually any location and still turn the plug as desired.
- Removable magnetic end with 1/4” square drive. When removed, the drain plug pro becomes a flexible-shaft 1/4” bit driver.
- Use for sockets and bit holders to get into hard-to-reach places including under dashboards and in engine bays to remove bolts once loosened. Designed for repetitive daily use with a Lifetime warranty.

4496 Hose Clamp Pliers Set
- Contains five different styles of hose clamp pliers, which will service most flat-band and ring-style hose clamps. Also contains a hose removal tool.
- Set Contains:
  - Straight hose clamp pliers
  - Hose removal tool
  - Flat-type hose clamp pliers
  - Offset hose clamp pliers
  - 45° hose clamp pliers

4521 Hose Removal Tool
- Unique tip easily fits between hose and fitting to break stubborn hoses loose.
- Large handle provides a reliable grip on tool during hose removal.
- Works on fuel and oil lines – any place a rubber hose is clamped to a fitting.

4522 Hose Removal Set (6-piece)
- Consisting of six (6) hose removal tools which consists of three (3) 10°, soft-handled tools and three (3) 15°, soft-handled tools, each with a hard end-cap.
- They are made of heat-treated, chrome steel with assorted tip shapes.
- Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
- Hose removal tools can also be used on upper and lower radiator hoses, clips, washers, gaskets and other items.
- Packaged in a molded tray.

4839 Adjustable Piston Ring Expander Pliers
- These simple pliers include tips designed to capture the ends of piston rings to hold and expand them securely while installing onto pistons.
Cooling System Pressure Tester
Now you can pressure test the cooling system on motorcycles, ATVs, and even snowmobile applications. The tester’s universal fit eliminates the need for multiple adapters.

4437
8-Piece Sensor Socket Set
Includes:
4673-1 29 mm Vacuum Switch and O2 Socket, 1/2” drive
4673-2 7/8” Vacuum Switch and O2 Socket (wide slot), 3/8” drive
4673-3 27 mm Thermal Sensor Switch, 1/2” drive
4673-4 7/8” Vacuum Switch and O2 Socket (narrow slot), 3/8” drive
4673-5 1 1/16” & 1” Oil Pressure Sending Unit Socket, 3/8” drive
4673-6 7/8” O2 Sensor Socket, offset 1/2” drive
4673-7 7/8” O2 Sensor Socket (low profile), offset 3/8”. drive.
4437-8 1-1/16” and 1” Oil Pressure Socket (short access), 3/8” drive

4480
Basic Fuel Injection Service Kit
Performs running, residual, rail and flow rate pressure tests on fuel injected engines. Kit includes adapters, hoses, fittings, and a professional dual scale gauge that reads 0-100 PSI and 0-700 kPa with relief valve. All packaged in a professional, heavy-duty, blow molded carrying case.

7991
Cooling System Pressure Tester
Now you can pressure test the cooling system on motorcycles, ATVs, and even snowmobile applications. The tester’s universal fit eliminates the need for multiple adapters.

4838
Piston Ring Compressor Set, 6 Piece
This 6 ring set covers 2-7/8” thru 4-3/8" piston diameters. The ring compressor pliers feature a ratcheting lock to hold the handles in position for easy piston installation.

4838
Piston Ring Compressor Set with Ring Expander
This complete set includes 12 chrome plated compressor sleeves covering 1-3/8” thru 4-3/8 diameter piston applications. Both the ring compressor and ring expander pliers feature a ratcheting lock to hold the handles in position for easy piston installation.

4842
Heavy Duty Valve Spring Compressor
Used to compress valve springs for removal or installation. The heavy duty C-frame has a 9” opening and a 5” throat. Kit includes 16mm, 19mm, 23mm, 25mm, and 30mm valve spring retainer adapters.

4572
Valve Spring Compressor
• Designed to compress valve springs on overhead valve engines.
• Includes two valve spring adapters, which fit valve spring retainers up to 1” (25 mm) and 1-3/16” (30 mm).
• Unique, direct action compressor lever gives better visibility of valve spring retainers located in difficult access areas.
• Jaw opening of 1-3/8” to 5-5/8” (35 mm to 142 mm); throat clearance of 5-7/8” (150 mm).

4844
Cam/Crank Locking Tool, Twin Cam & Dyna
• Designed to lock the cam and crank sprockets together for removal, replacement and proper torquing of the sprocket bolts.
• Double end design covers;
  Twin Cam 88/B 1999 & Later
  Dyna 2006 & Later

306905
Optional pressure hose, 70” long.

4875
Similar to HD-47941
4876
Similar to HD-42314

4875
Cam/Crank Locking Tool
• Designed to lock the cam and crank sprockets together for removal, replacement and proper torquing of the sprocket bolts.

4875
Application; Dyna 2006 & Later
4876
Application; Twin Cam 88/B 1999 & Later

7602
Noid Light
For HD Port Fuel Injection models.

518542
Fuel Injection Shrader Fitting
Used for connecting to fuel system for diagnosis.

518542
Similar to PS-48762

7602
Similar to HD-34730-2E

7602
Noid Light
For HD Port Fuel Injection models.

4844
Cam/Crank Locking Tool, Twin Cam & Dyna
• Designed to lock the cam and crank sprockets together for removal, replacement and proper torquing of the sprocket bolts.
• Double end design covers;
  Twin Cam 88/B 1999 & Later
  Dyna 2006 & Later
**ENGINE / FUEL / OIL**

**MOTORCYCLE/POWERSPORTS**

**6589**
**Electronic Ignition Spark Tester**
Use to quickly check spark on 2 and 4 stroke gasoline engines with electronic ignition systems.

**7419**
**Timing Tensioner Locking Pin Set**
- This pin set is used to lock timing belt or chain tensioners once they have been compressed, required during the service procedure.
- Once the belt or chain service is complete, the pin is simply pulled out to return the tensioner to functional.
- 6 pin set with clip to cover most all applications.

**4845**
**Wrist Pin Installer & Remover Tool**
- Removes and installs piston wrist pins without having to hold the piston in position and use a drift.
- Applications include HD stock and aftermarket engines, including Twin Cam, and other engine makes with similar piston pin diameter sizes.

**4846**
**Tappet Block Alignment Set**
- These adapter screws provide perfect alignment of the oil hole from the crank case to the tappet block on Shovel and Evo style engines.
- Align rocker boxes on Evo heads.
- Also align twin cam oil pump.
- Applications include all HD Big Twin single cam engines, stock and aftermarket, 76 – Present.
- Similar to HD-33443.

**4847**
**Cam Chain Tensioner Unloader Tool**
- These tools are used to unload the pressure of the primary and secondary chain tensioners when servicing HD Twin Cam 88 engines.
- Tools can also be used to check spring loads on chain tensioners.
- Applications include 99-06 FL, 99-05 FXD, 00-06 FXST.
- Similar to HD-42313.

**4847A**
**Twin Cam Inner Cam Bearing Remover/Installer Kit**
- This kit contains the tools to remove and install inner cam bearings without damage to the crankcase.
- The bearing puller is designed to trap the needle bearings and keep them from falling into the crankcase.
- The installation tools are designed to press on the outer most diameter of the bearing, eliminating damage to the bearing, cam, or case. The press adapter will also set the bearing to its proper depth.
- Removes and installs both 7/8” and 1” ID bearings.
- Similar to HD-42325-B.

**4849**
**Ear Type Clamp Pliers**
- Used to crimp the type of clamps used on fuel and cooling system hoses.
- Ensures even, precise crimping, and eliminates possibility of damage to the clamp, boot, or hose.

**4851**
**Tappet Oil Filter Screen Plug Tool**
- A simple tool to remove the tappet oil filter screen plug without removing the exhaust pipes on HD applications. Can also be used on any slot type plug.

**4866**
**Timing Plug**
- This threaded clear acrylic timing plug used in conjunction with a timing light allows for viewing the crankshaft timing marks without oil spraying out of the crankcase, typical during full advance RPM.
- Fits all HD models.
- Similar to HD-96295-65D.

**4869**
**Water Pump Drive & Rotor Puller**
- Installs the water pump drive gear on the rotor and removes the rotor from the crankshaft. This tool also works on RZR XP.
- Similar to Polaris No. PA-49316.
5604 Motorcycle Compression Tester Kit
Designed specifically for testing motorcycle and small engines, this kit features a specially designed compression gauge and hose assembly, plus three different size hose adapters. Compression Tester and hose lengths are designed for optimal viewing along side engine. Covers most popular motorcycle and small engine plug sizes.
Features and benefits:
• Corrosion resistant nickel plated finish
• 10" flex hose gauge assembly with quick coupler
• 2-1/2" gauge features chrome bezel and rugged protective outer boot
• Dual scale gauge reads 0-300 psi and 0-2100 kPa
• 12" flex hose -14 mm standard/plus reach (extra length supports V-Twin applications)
• 12" flex hose -12 mm standard reach
• 12" flex hose -10 mm standard reach
• Rugged blow molded hard case with removable lid
• Repair parts kit

5609 Cylinder Leakage Tester Kit
Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit come complete with adapters for most applications.
Features and benefits:
• Dual 2-1/2" gauges feature chrome bezel and rugged protective outer boot.
• Scales read 0-100 psi and 0-700 kPa.
• Pressure regulated manifold includes quick couplers.
• Long flex 24" 14 mm hose.
• 10 mm, 12 mm and 18 mm thread adapters.
• Blow molded hard case with removable lid.
• Detailed instruction chart.

5613 Vacuum/Pressure Gauge Kit
Ideal for testing vacuum lines and components. Accurately tests low-pressure fuel systems. Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit comes complete with adapter for most applications. Pin point hard to find problems such as cracked lines.
Features and benefits:
• Large 3-1/2" gauge features a chrome bezel and rugged protective outer boot.
• Dual purpose gauge reads vacuum and pressure.
• Dual scale gauge reads 0-30 in. Hg vac and 0-70 cm Hg, also reads 0-15 psi and 0-100 kPa.
• Built in rear hook allows gauge to be hung at eye level.
• Adapters for most applications.
• Blow molded hard case with removable lid.
• Detailed instruction chart.

6978 Vacuum Test Kit
OTC 6978 Test-Vac Vacuum Test Kit allows fast, efficient testing and monitoring of many vacuum operated components and also allows one man brake bleeding. The new kit can help find vacuum leaks, test fuel, engine and exhaust valves, door locks, and heating/cooling system performance. Included in the kit are the vacuum pump, fluid container, transfer cap, hoses and fittings, packaged in a convenient blow molded storage case and covered by OTC’s Lifetime Warranty.
Includes:
• Vacuum pump with integrated vacuum gauge
• Fluid container with transfer cap
• 2 lengths of vacuum hose
• 12 assorted vacuum hose fittings
• 3 brake bleed fittings
• Instruction Manual
• Blow Molded Storage Case
**4860**

**Transmission & Steering Bearing Puller/Installer Kit**
- This combination kit works on transmission main-shaft and steering stem bearings on HD motorcycles.
- Removes, Fork stem bearings on most applications. Flywheel bearing 00-03 XL. Removes/Installs, Inner bearing race on trans main-shaft Big twin 84 & later.
- Aftermarket trans main-shaft bearings & bushings on 5 & 6 spd. LSD and RSD trans.

**4861**

**Flywheel Puller**
- M33x1.5 RH Internal threads.
- Applications
  - Suzuki GSRX 1000 01-08, GSRX 600 01-09, GSRX 750 00-08
  - Yamaha WR 450F 04-08, YFZ 450 04-09.

**4862**

**Flywheel Puller**
- M50x1.5 RH Internal threads
- Includes crankshaft protector.
- Fits Suzuki.

**4863**

**Flywheel Puller**
- M24x1.5 RH Internal threads.
- Includes 12mm shaft protector cap.
- Fits Honda, Kawasaki, and Suzuki motorcycle applications.

**4864**

**Flywheel Puller**
- M26x1.0 RH Internal threads.
- Includes 12mm shaft protector cap.
- Fits KTM 4 stroke motorcycles.

**4865**

**Flywheel Puller**
- M30x1.0RH Internal threads.
- Fits Yamaha WR 250F.

**4888**

**Flywheel Socket Set**
- The best flywheel sockets available. These offer a low profile design that provides full nut to socket contact to eliminate rounding off the nut and slippage. Made from heat-treated chrome moly steel.
- Set includes:
  - Socket fits pinion shaft nut on big twin 81-89. Size 1-1/4” with 1/2” square drive.
  - Socket fits crank pin nut on big twins 54 – early 81. Size 1-5/16” with 1/2” square drive.
  - Socket fits crank pin nut on Sportster 81-99 and Buell 87-99. Can also be used on top fork nut on glide forks. Size 1-3/8” with 1/2” square drive.
  - Socket fits crank pin nut on big twin 83-99 single cam. Size 1-1/2” with 1/2” square drive.
  - Socket fits sprocket shaft nuts on big twins 72-99 single cam. Size 1-5/8” with 3/4” square drive.
4970
Heavy Duty Flywheel Puller
- Extremely heavy duty puller to pull the most stubborn flywheels. Includes 2 drive screws and bolts: 8mm x 1.25 x 60mm (3X), 6mm x 1.0 x 55mm (6X), 6mm x 1.0 x 50mm (6X).
- The 6 bolt capable design fits Polaris ATV, Snowmobile, Watercraft and many other makes and models.
- Similar to Polaris No. 2871043-A.

4971
Clutch Holding Wrench
- Designed to hold the drive clutch for retainer bolt removal and torquing. For both P-85 and P-90 drive clutches on Polaris ATV & Side x Side.
- Similar to Polaris 931A177-A.

4972
Drive Clutch Holding Fixture
For solid holding of drive clutch for spider removal when shimming for belt-to-sheave clearance or servicing spider.
- Bolt to bench or clamp in a vise.
- Contacts all webs for maximum support to eliminate clutch web damage.
- Center hold down for much greater holding stability while applying off center torque.
- Single person operation, even on the most difficult spiders.
- ATV and Ranger applications.
- Similar to Polaris No. 2871358-B.

4973
Clutch Holding Tool
- Designed to compress of a clutch hub, but can also be used on gears and sprockets. Opens to handle a 5” OD hub.
- Holder arms designed to fit into the external teeth of a clutch hub, but can also be used on gears and sprockets. Opens to handle a 5” OD hub.
- Similar to Polaris No. PU-50S18.

4974
Clutch Puller
- Removes drive clutches on Polaris Side x Side and Snowmobile.
- Side x Side Applications: Ranger RZR XP 2011 and newer.
- 3/4-16 thread.
- Similar to Polaris 2872085.

4975
Clutch Puller
- Short puller for removal of the drive clutch from the crankshaft taper on Polaris 550 Sportsman XP 4x4 09-12, 550 Sportsman (all models) 10-12, 570 RZR 4x4 12, 800 RZR 4x4 (all models) 08-12, and Ranger Diesel.
- Similar to Polaris PA-48595.

4976
Primary Drive Clutch Puller
- Similar to Polaris 2870506.

4977
Clutch Alignment Tool
- Establishes correct clutch offset and alignment on Polaris EBS Clutches.
- Similar to Polaris 2872292.

4978
Clutch Alignment Tool
- Establishes correct 1/2” clutch offset and alignment on Polaris ATV & Side x Side.
- Similar to Polaris 28870654.

4979
Clutch Alignment Tool
- Establishes correct clutch offset and alignment on Polaris PBS Clutches.
- Similar to Polaris 2870426.
4745 Chain Master Link Clip Tool
Designed specifically for roller style chains with specialized tips to easily remove and install master link clips. Includes comfort grip handles.

4746 Chain Master Link Plate Tool
Tool will remove press-fit master link plates found on many standard and O-ring style roller chains. Will also break 40-60 series chains to add a master link or remove links.

4747 Chain Master Link Plate Tool
Tool will remove press-fit master link plates found on many standard and O-ring style roller chains. Will also break 40-60 series chains to add a master link or remove links.

4748 Belt Tension Gauge
This easy to use and read tool allows for accurate belt tension to be set after belt replacement, adjustment, or wheel service. Use on secondary drive belts with a 10 lb. spec. Instructions: 1. Position the small O-ring over the 10 lb. mark. 2. Position the U-shaped belt cradle against the bottom of the belt at a 90 degree angle and locate the large O-ring to a reference point, record reading. 3. Push upward on the rubber bumper until the small O-ring touches the bottom of the tool body. Re-align the large O-ring to the reference point, difference in the reading is the belt deflection (refer to service manual for spec.)

4749 Belt Tension Gauge
This easy to use and read tool allows for accurate belt tension to be set after belt replacement, adjustment, or wheel service. Use on secondary drive belts with a 10 lb. spec. Instructions: 1. Position the small O-ring over the 10 lb. mark. 2. Position the U-shaped belt cradle against the bottom of the belt at a 90 degree angle and locate the large O-ring to a reference point, record reading. 3. Push upward on the rubber bumper until the small O-ring touches the bottom of the tool body. Re-align the large O-ring to the reference point, difference in the reading is the belt deflection (refer to service manual for spec.)

4738 Chain Breaker & Riveting Tool Kit
This heavy duty kit makes easy work out of breaking, pressing, and riveting # 415 - # 632 size standard and O-ring roller chains. The handle can be mounted in 3 different positions on the forged and hardened alloy c-frame, providing access while the chain is on the vehicle. The kit can rivet hollow nose master links as well as hardened pins. Storage case included.

4739 Chain Brush
Use to clean and oil various sized roller chains found on motorcycles, ATVs, machinery, etc. Brushes adjust to chain widths ranging from 1/4" to 9/16".

4744 Chain Breaker and Riveting Tool Kit
This kit will break, press, and rivet most #25 - #35 and # 428 - #630 standard and O-ring roller chains. Includes HSS rivet tip for riveting hollow nose master links. The hardened steel body has a removable handle for compact storage.

4987 Clutch Spider Nut Socket
• Used to remove and install the drive clutch spider jam nut on 2011 & newer Ranger RZR XP. Similar to OE P/N PU-50578.
• Similar to Polaris No. PU-50578.

4988 Clutch Spider Nut Driver
• Essential when servicing or re-building Polaris clutch. Fit’s PBS and P90 clutches found on Polaris ATVs and snowmobiles 1972 to Present. (except 900 RZR XP 4x4 11-12, 900 RZR XP 4 4x4 12).
• Similar to Polaris No. 2870338.

4989 Clutch Spider Tool
• Essential when servicing or re-building Polaris clutch. Fit’s PBS and P90 clutches found on Polaris ATV, Side x Side, and snowmobiles 1972 to Present.
• Similar to Polaris No. 2870341.

4880 4-in-1 Hex Axle Tool
• Fits internal hex on many late model sport bike axles and some dirt bikes.
• Heavy duty CrMo steel construction for shop use.
• Four metric hex sizes: 17 mm, 19 mm, 22 mm and 24 mm.
• 3/8” square drive on both ends.

4882 Rear Axle Wrench
• This wrench allows for simple adjustment of drive belt tension or rear wheel alignment.
• Eliminates the need to remove any exhaust components.
• 36mm wrench includes a 1/2” square drive allowing for use with a torque wrench for proper axle torque.
• Similar to HD–47925.

4882 Rear Axle Wrench
• This wrench allows for simple adjustment of drive belt tension or rear wheel alignment.
• Eliminates the need to remove any exhaust components.
• 36mm wrench includes a 1/2” square drive allowing for use with a torque wrench for proper axle torque.
• Similar to HD–47925.

4740 Chain Master Link Plate Tool
Chain Master Link Plate Tool
Tool will remove press-fit master link plates found on many standard and O-ring style roller chains. Will also break 40-60 series chains to add a master link or remove links.
4758 
**Motorcycle/ATV Chain Tensioner**
- Tool is designed to work on drive chains found on motorcycles and all-terrain vehicles (ATVs). Fits the following size chains: 428, 520, 525, 528, and 530.
- Tool jaws fit in chain link ends. Tightening the forcing screw pulls the jaws together to hold the chain in place for easy removal or installation of the chain connector or master link.

714 
**Horseshoe Lock Ring Pliers**
These pliers feature 8” handles and are designed to spread and remove horseshoe style lock rings found on engines, transmissions, and chassis.

7313 
**Retaining Ring Pliers**
These pliers are 7-3/4” long and are designed to spread and remove retaining rings found on engines, transmissions, and chassis. Maximum spread is 1-1/16”.

4623 
**CV Joint Banding Tool and Cutter**
Use to install and tighten the “band-it” or strap style clamps found on CV joint boots, steering gear boots, or hoses. Tighten the band by turning the handle on the tool; use a socket or wrench on the handle to torque the band to OE specifications. When the boot clamp has been tightened to specs, cut the band to the correct length by flipping the lever (at the front of the tool) forward.

4721 
**CV Boot Clamp Cutter**
Designed to easily cut the CV boot clamp without damaging the boot. Will cut boot clamps up to 10 mm wide and .7 mm thick. Handles are spring loaded to the open position to allow easy access to the clamp.

4527 
**5-Ton Pressure Beam Bearing Splitter Kit**
Single point of adjustment allows quick attachment of 3” splitter to the bushing or bearing. Pressure beam is used in conjunction with interchangeable legs. Includes carry case.

7790 
**Flange Puller Set (48 piece)**
Versatile puller capable of removing a wide variety of components having tapped pulling holes such as gears, pulleys, etc.
- Capable of handling 2- or 3-way bolt pulling applications.
- Puller flange: adapts to bolt circle dia. of 1-1/2” to 4-5/8”.
- Shaft protector: 1-3/16” dia. x 3/4” thick.

525 
**Flange-Type Puller Combination**
Two specialty pullers in one box. You get a flange-type puller for removal of parts with two or three tapped holes. You also get a pulley and flywheel puller. 525 includes: flange-type puller along with a puller with four sets of cap screws.

6981 
**Blind Hole Puller Set**
Pilot bearings and pilot bushings are one of the most critical components in a transmission clutch system. Damage, wear, or contamination can result in binding on the input gear and may be revealed as the clutch drag symptoms or even a growling sound when clutch pedal is fully released.
- 5 - collet-actuator combinations cover 5/16” to 1-1/4” I.D.
- Use collets with Pulling Bridge or as Slide Hammer Attachment.
- Easy to read component application chart and instructions.
- Conveniently laid out in rugged blow mold storage case.
- Forged and machined in Owatonna Minnesota, U.S.A

1037 
**7-Ton Grip-O-Matic Puller**
Mechanical Grip-O-Matic® Puller Remove and install parts for fast, effective repairs. The puller is forged from quality steel, heat treated, and subjected to rigorous tests which exceed their rated capacity.
- 7-Ton, 2/3-Jaw
- Max. Reach 5” Max. Spread 10-1/2”
- Screw Size 11/16”–18 x 9”
- Jaw Thickness Upper 5/16” Lower 11/32”
- Jaw Width Upper 1” Lower 1”

4532 
**7-Ton Multi Purpose Bearing and Puller Set**
- Offers a bearing/pulley tool solution featuring a classic “H” Bar style puller block accommodating 7” to 11” application spread.
- Comes with 2 sets of forged jaws for a pulling reach range of 5” to 9” – tempered for heavy-duty applications. Two forcing screws are included for short and long pulls.
- Where a Push Puller is the best pulling choice and threaded holes are not available, the 4532 provides technicians and shops with a solution for many applications like side bearings, alternators, generators, power steering and crankshaft pulleys.
- Deep set works excellent for pulling the primary plate from the transmission.
Heavy Duty Pulley Holder

Universal Pulley Holder Locking Pliers Set
Pullers
Primary Drive Locking Tool
Universal Pulley Holder
Flange Puller
Locking Bar
Adjustable Primary Locking Bar
Puller/Bearing Separator Set
Pulley and Flywheel Puller

7403
Pulley and Flywheel Puller
Here’s a puller that works in a variety of applications. Works as a regular 2/3-way puller to remove pulleys and small engine flywheels. Cap screws included (pairs): 3/8-16 x 3-1/2 in.; 5/16-18 x 3-1/2 in.; 5/16-24 x 3-1/2 in.; M8-1.25 x 90 mm; and 5/16-18 x 4 in. (SIR).

4518
Universal Pulley Holder

4518-3
4518-2

464
Griplock 2 Ton, 3 Jaw Puller
Three-in-One “Griplock” Puller is used for general purpose pulling such as hubs, gears, bearings and anywhere this versatile puller can be attached.

465
Griplock 5 Ton, 3 Jaw Puller
Three-in-One “Griplock” Puller is used for general purpose pulling such as hubs, gears, bearings and anywhere this versatile puller can be attached.

6930
Flange-Type Puller Combination
Heavy-duty flange puller features a live center forcing screw. Includes two live center forcing screw tips and two sets of commonly used automotive bolts. Puller will work on bolt circles from 1-1/2" to 4-1/4". Three cap screws, 3/8-24 x 3" long, and three cap screws, 3/8-16 x 3" long.

518
Flange Puller
Pull larger diameter parts having two or three tapped holes.

4754
Universal Pulley Holder
Universal design fits many different size pulleys having slots or holes, such as crankshaft/transmission pulleys or gears.

4802
Universal Pulley Holder Locking Pliers
This adjustable locking pliers can be used to hold pulleys, clutch hubs, flywheels, gears, and sprockets with internal or external teeth up to a 4" diameter. Can also be used on applications with slots or holes with the 5/16" pins. Complete with metal carry case.

4804
Heavy Duty Pulley Holder
This strap style universal wrench features a 9” drop forged handle and 23” leather strap for excellent grip on diameters up to 7”. The milled foot increases grip on the strap and pulley as handle force is increased.

4803
Universal Pulley Holder Locking Pliers Set
This adjustable locking pliers can be used to hold pulleys, clutch hubs, flywheels, gears, and sprockets with internal or external teeth up to a 4" diameter. Can also be used on applications with slots or holes with the addition of the interchangeable 5, 6, 7, 10, and 16mm pin sets.

4852
Adjustable Primary Locking Bar
Used to lock primary for service work.
Will work on Chain or Belt Drive primary drives.
Adjustable length from 4” to 7-1/4” to cover virtually any application.
Fork Cap & Compression Valve Socket Set
• This set is designed to fit fork cap sockets or the compression body with an octagonal shape. These offer a low profile design that provides full nut to socket contact to eliminate rounding off the nut and slippage. Made from high quality aluminum and can be driven with the 3/8” square drive or 19mm wrench.

Fork Spring Compressor Kit
• Designed to install fork caps on forks with a large amount of spring pre-load. Kit includes 39mm and 41mm adapter sets, and one jackscrew.
• Application: 39mm and 41mm HD forks.

Steering Head Bearing Installer
• Designed to install steering head bearing cups and races completely straight without any damage.
• Will work on stock and custom applications.
• Similar to HD-39302.

Swing Arm Bearing Tool
• Designed to install new needle style bearings into a swing arm. Includes 3 drivers to fit different size bearings. Driver 1 (22.0mm/26.8mm), Driver 2 (21.0mm/26.0mm), Driver 3 (20.0mm/26.0mm).
• Application: For use on late model off-road motorcycles such as Honda, Suzuki, Kawasaki, Yamaha models.

Swing Arm Pivot Bearing Puller
• An essential tool for removing and installing pivot bearings in swing arms and front fenders.
• Applications include HD Softail swingarms 86-Present, HD Springer front fender mounts 97-11.

Ball Joint Service Kit
• Use to remove and install ball joints in vehicle on Sportsman XP, RZR and Ranger models.
• Similar to Polaris No. PU-50506.

ATV Steering Knuckle/Ball Joint Separator
• Eliminates damaging the A-Arm, ball joint stud, or rubber boot while separating the ball joint from the knuckle body. Includes 2 drive bolts for Applications include ATV models Honda TRX and Yamaha YZF, YFZ, and YFM.

ATV Steering Knuckle/Ball Joint Separator
• For removal and installation of lower ball joints on models with pressed-in ball joints on the front strut casting found on Polaris and other Makes.
• Similar to Polaris No. 2870871

Screw Extractor Set
• Removes broken studs and bolts.
• Includes ten guide bushings, five drill bits and five screw extractors with extractor nuts.
• Drill bits are left handed to help removal.

ATV U-Joint Press
Use to remove and install ATV driveshaft U-Joints.
4517 7-Ton Bar Type Puller/Bearing Separator
- Includes a Bearing Splitter with 4" capacity, two sets of hex push puller legs, a 8" bar type puller head mated with a custom thread forcing screw.
- Puller/Bearing set for tough jobs, up to 7-tons, larger applications, and greater reach 8" to 16".
- Capacity to remove steering stem bearings.

4581 Blind Hole Bearing Puller
- For pulling jobs requiring an internal pull, such as pilot bearings and pinion bushing from cam cover.
- Four collets which fit a wide range of applications. Select the appropriate sized collet by comparing it with the application. Insert the collet, expand it to fit the hole, then attach the slide hammer assembly.
- Set includes:
  - Four collet sizes: 7/16" to 1/2", 9/16" to 11/16", 5/8" to 1", 1" to 1-1/4" and 2-1/2 pound slide hammer with T-handle and blow-molded plastic storage case.

4507 Bearing Driver Set, Stinger
- Permits installation of tapered bearing races and seals without damage to the component or housing. Includes a driver handle plus popular bearing and seal drivers, ranging from 1.565" to 3.180".
- Tapered side of driver is used to install races. Invert the driver to the flat side to install seals. Set is housed in a blow-molded plastic storage case.
- Bearing applications include steering stem, swing arm, and wheel bearings races.

4790 Wheel Bearing Removal/Installation Kit
- This tool assembly will remove and install 3/4", 1", and 25mm I.D. sealed wheel bearings.
- Standard wrenches used in combination with tool. Instructions included along with blow molded case.
  - Includes
    - 4790-1 Wheel bearing tool bridge
    - 4790-2 Wheel bearing tool screw Ass'ty
    - 4790-3 Wheel bearing remover, 3/4"
    - 4790-4 Wheel bearing remover, 25mm
    - 4790-5 Wheel bearing remover, 1"
    - 4790-6 Wheel bearing tool nut/washer
    - 4790-7 Wheel bearing forcing screw
    - 4790-8 Wheel bearing tool set, 3 piece

4791 10" Profile Gauge
- This 10" gauge provides an exact copy of a contour or profile needed during bodywork or fabrication. The plastic fingers will not scratch original finish and non-metal surfaces.

4797 Steering Stem Bearing Installation Tool
- Provides a quick and easy method to install lower steering stem bearings. The 14" drive tube accepts the 1.0", 1.4", and 1.75" I.D. bearing adapters.

6642 Trim Tool Kit (11 Piece)
- Tools designed to remove specialty body fasteners, trim strips, panels, bezels, liners, shrouds, fascia.
- Tools are constructed of durable, impact-resistant nylon that will not damage metal and non-metal surfaces.
4747 Spoke Torque Wrench Set (22 Piece)
- Use to tighten or loosen spoke nuts found on most motorcycle and scooter wheel applications.
- Nine interchangeable wrench ends: 5.2 mm, 5.4 mm, 5.6 mm, 5.8 mm, 6.0 mm, 6.2 mm, 6.4 mm, 6.6 mm, 6.8 mm.

5726 Bead Breaking Tool
Designed to break down motorcycle, ATV and small garden tractor tires. The two-tool set includes a locking pliers and pry tool to quickly and easily break the bead. The locking pliers clamps to the wheel rim by forcing the wedged jaw into the tire bead. The pry tool incorporates a second wedge and a loop that quickly hooks to the locking pliers wedge jaw. The pry tool is then pushed down, breaking the tire bead.

5730 Motorcycle Bead Holding Pliers
Specialty locking pliers designed to hold the tire bead either up or down when mounting or demounting a tire. Clamp the non-marring pliers onto the wheel rim and use tire spoons to mount or demount the tire. The pliers eliminate the need to leave a tire spoon in position to hold the tire bead.

Motorcycle Tire Bead Holding Tool
This tool allows the tire bead to be held in the drop center of the wheel when changing the tire or installing an inner tube. The slot slides over the spoke and the opposite end is depressed to push the tire into position.

4777 For use on wheels with 3/4” maximum side profile height.

5734-18G Tire Machine Spoon, Double End with Grip Grooves, 18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.

5734-18 Tire Machine Spoon, Double End, 18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.

7206 Multi-purpose Strap Wrench
You’ll find many uses for this heavy-duty strap wrench. The 53” long nylon strap won’t mar precision surfaces of shafts, pulleys, or other components. Useful on engine, transmission, and drive pulleys up to 16 inches. Special head design self-tightens the strap as force is applied to the lightweight, 12” long handle.

305085 Replacement Strap.

4751 Tire Pressure/Tread Depth Gauge
This 3-in-1 gauge will measure tire pressure, lower tire pressure, and measure tread depth all in one gauge. Rugged cast housing for strength and long life.

4750 Tire Valve Installer/Remover Tool
This 14” steel tire valve tool includes a stepped rubber sleeve that can be positioned on the handle for optimum pulling angle of the valve, while protecting the wheel finish. Removes and installs snap-in style tire valves.

4777 For use on wheels with 1 5/8” maximum side profile height.

4775 For use on wheels with 3/4” maximum side profile height.

4769 Wheel Rim Protector Set, (3 piece)
Fits over the wheel rim to protect the wheel from being scratched or damaged while using tire spoons. Set of 3.

4771 Tire Bead Alignment Tool
This aluminum tool will hold a tire bead into the drop center of the wheel when changing the tire or installing an inner tube. The nylon thumbscrew will not damage the wheel finish.

4759 Tire Spoon with Grip
This 13” curved tip tire spoon is strong yet comfortable to use with the form fit hand grip. The rounded head prevents puncturing the tube.

4770 Tire Spoon with Grip Grooves
This 18” curved and bent tip tire spoon is strong yet comfortable to use with the form fit hand grip. The rounded head prevents puncturing the tube.

5734-18G Tire Machine Spoon, Double End with Grip Grooves, 18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.
4599 One Man Brake Bleeder Hose
- Removes air from brake system—one wheel at a time—and eliminates the need for an assistant to help do the job.
- Hose easily attaches to bleeder screw, which holds hose in place and prevents leaking.
- Check-valve on end of hose prevents air from entering brake system when pumping brake pedal.

4743 Brake Caliper Spreader
- Compresses the brake pistons on most style calipers for easy pad replacement.
- Fits calipers with 1/4” thick rotor applications, popular on motorcycles.
- Range: .25” (5 mm) to 2.25” (58 mm). Works on all automotive applications in this range.

4799 Brake Piston Removal Locking Pliers
This specially designed locking pliers allows the removal of brake caliper pistons during service or rebuild. The pliers is simply clamped into the I.D. of the caliper piston allowing it to be pulled out of the caliper. Range: 5/8” to 2-1/4” diameter pistons.

4794 Safety Wire Drill Guide Set, SAE & Metric Set
Here is the perfect way to drill those nuts and bolts for use with safety wire without breaking the drill bit. These guide, align, and support the hex head or the bolt threads. The hex fixture fits nuts and bolt heads up to 15/16” (24mm). The SAE fixture bar is threaded for 1/4”-20, 5/16”-18, 5/16”-24, 3/8”-18, 3/8”-24, 7/16”-14 bolts, and the Metric fixture bar covers M6x1.0mm, M8x1.0, M8x1.25mm, M10x1.25mm, M10x1.5mm, M12x1.5mm sizes.
4870 Master Cylinder Snap-Ring Pliers
Allows for removal of the internal snap rings found in hydraulic master cylinder. Remove and install small to medium snap rings up to a 2 1/8" depth. Other snap ring applications include transmission gear locators, bearing and oil seal retention, and fork seal retaining rings.

4878 Ignition Switch Housing Alignment Tool
- This tool aligns the ignition switch housing properly as the retaining screws are being torqued. Proper switch alignment extends the life of the ignition switch. Applications include HD FL Touring models 03 – Present, V-Rods 02 – Present.
- Similar to HD-45962.

4614 Battery Terminal Wrench, 5/16, 6 pt.
- Designed for use on side-terminal batteries, or any 5/16” hex head battery bolt.
- 5/16”, 6 point, box end, 5-1/2” long, ratcheting wrench, insulated handle.

4617 Terminal Battery Brush
- Designed to clean corrosion from side post batteries.
- One brush used to clean battery terminals; other brush used to clean battery cable ends.
- Plastic handle resists battery acid.

4822 Wire Connector Tool Set (2 Piece)
Designed to remove terminals from connector housing without damage to the terminal or connector. Set provides 12 different tool styles fit most common connectors.

4813 Heat Shrink Tubing Set (171 Piece)
Protection and insulation for solder connections and components. 2 to 1 shrink ratio with flame or heat gun.

4814 Waterproof Heat Shrink Tubing Set (106 Piece)
Waterproof protection and insulation on solder connections and components. Adhesive lined inner wall to seal out moisture. 3 to 1 shrink ratio with flame or heat gun.
4461 Terminal Release Tool Set
- Save time and money. Repair or rebuild a wiring harness without having to order the entire OE replacement.
- Services most OE terminal connectors. Insert the appropriate release tool to depress the locking tab and the individual wire slides out for service or replacement.
Kit includes:

7737 Computer edge board and header release tool. Each end of the tool works on different terminal connector configurations. Works on various domestic and import models.
7738 Weather Pack sensor terminal release tool. Works on various domestic and import models.
7740 Micro-style terminal release tool. Works on various domestic and import models.
7741 Specifically designed to release ID computer terminals on various domestic and import models.
7742 Universal harness release tool designed to work on various domestic and import models.
7743 Releases terminals on most harness connectors on various domestic and import models, including water, O2, vacuum, and air temperature sensors.

5912 Crimpwell™ Angled Crimping Pliers
- Universal crimping design accommodates soft wire – solid or stranded – 10-22 AWG.
- Cutting feature included for quicker preparation.
- 9” (228mm) in length, with protective grips to increase leverage and secure crimp.
- Angled design keeps the connector, the wire, and the crimper “in-line” – improving visibility and access in hard to reach places.
- Designed to not pierce connector insulation and also works on un-insulated connectors.
- Service tech can use as much force as desired to ensure connection and it will not damage connector insulation.
- Easy-to-use: Simply insert the connector into the crimping feature, slip over the connector and squeeze.

7742 7743

5950K CrimPro™ 4-in-1 Wire Service Set
CrimPro™ 4-in-1 Wire Service Set includes both the OTC 5950S CrimPro™ 4-in-1 Wire Tool and OTC 5950A CrimPro™ 4-in-1 Angled Wire Tool.

5950S
- Compact 7-inch design used 4 ways.
- Gripping nose – to pull, twist, bend, and shape.
- Crimper – crimps 12-20 AWG insulated and non-insulated wire.
- Stripper – strips 12-20 AWG wire.
- Cutter – ability to make cuts below pivot.

5950A
- The angled feature allows access to close quarters and facilitates superior crimps.
- Compact 7-inch design used 4 ways.
- Gripping nose – to pull, twist, bend, and shape.
- Crimper – crimps 12-20 AWG insulated and non-insulated wire.
- Stripper – strips 12-20 AWG wire.
- Cutter – ability to make cuts below pivot.

4783 Flexible Magnetic/Claw Pick Up Tool
The 25” flexible spring shaft allows the tool to reach difficult areas and pick up objects either magnetically or with the use of the retractable claw.

4818 Multi-Purpose Scissors
Will cut hose, wire and cables, wood dowel, PVC, and thin sheet metals in addition to general cutting. The hardened stainless steel blades have an angle ground into one that eliminates slipping when cutting round materials.
5900A-PLUS
Master Torx Bit Socket Set, 53-piece
Updated 53-piece Master Torx Bit Socket Set plus special 24mm External Torx PLUS Socket (p/n 5932-24) required for Ford Super Duty pick-up beds starting model year 2017. Socket kit includes various sizes of Torx, Torx PLUS, Tamper Resistant Torx, Bit Sockets and External Torx Sockets in 1/4", 3/8" and 1/2" square drive. Stored in a convenient hard plastic clamshell case for protection and organization. Not rated for use with impact tools.

6100
Standard TORX® Socket Set
T10 to T60 (12 piece)
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6101</td>
<td>T10</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6102</td>
<td>T15</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6103</td>
<td>T20</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6104</td>
<td>T25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6105</td>
<td>T27</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6106</td>
<td>T30</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6107</td>
<td>T40</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6108</td>
<td>T45</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6109</td>
<td>T47</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6110</td>
<td>T50</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6111</td>
<td>T55</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6112</td>
<td>T60</td>
<td>1/2&quot;</td>
</tr>
</tbody>
</table>

6150
External TORX® Socket Set (7 piece)
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6151</td>
<td>E6 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6152</td>
<td>E7 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6153</td>
<td>E8 x 25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6154</td>
<td>E10 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6155</td>
<td>E12 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6156</td>
<td>E14 x 32</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6157</td>
<td>E16 x 32</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

6170
Metric Hex Socket Set
(7 piece)
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6171</td>
<td>3 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6172</td>
<td>4 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6173</td>
<td>5 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6174</td>
<td>6 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6175</td>
<td>7 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6176</td>
<td>8 mm</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6177</td>
<td>10 mm</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

6180
TORX® PlusSocket Set
(9 piece)
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6181</td>
<td>TP10</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6182</td>
<td>TP15</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6183</td>
<td>TP20</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6184</td>
<td>TP25</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6185</td>
<td>TP27</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6186</td>
<td>TP30</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>6187</td>
<td>TP40</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6188</td>
<td>TP45</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>6191</td>
<td>TP50</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

5933
MotorQ® Super Bit Set
(5-piece)
Set includes one each of the following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sq. Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>5933-0</td>
<td>MTS 0</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-1</td>
<td>MTS 1</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-2</td>
<td>MTS 2</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-3</td>
<td>MTS 3</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>5933-4</td>
<td>MTS 4</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

4780
Personal Tool Pack
Includes 1/4" drive ratchet, 2" extension, 16 drive bits, and Universal Spline sockets fit both SAE 3/16" - 9/16" and metric 5mm - 14mm nuts and bolts in a variety of styles: 6 pt., 12 pt., torx, square, spline, etc. All tools included in a travel pouch.

5943
9-Piece Power Driver Socket Extensions
The 5943, 9 piece Power Driver Socket Extension set from OTC adds versatility to your existing power tools and socket sets. Each extension uses a 1/4" hex shank for adjustable chuck drills with 1/4", 3/8" or 1/2" square drive on the other end for sockets. 3 square drive sizes - 1/4", 3/8" and 1/2" and 3 lengths for each - 2" 6" and 12". Now use your sockets with your cordless power tools for short, medium and long reach applications. The 5943 is a great choice for running up multiple bolts like oil and transmission pans or rear ends instead of ratcheting each one by hand. Save your time for proper torquing instead of hand turning your bolts. Limited lifetime warranty.

5943-1 Three 1/2" square drive socket extensions in 2", 6" and 12" lengths
5943-2 Three 3/8" square drive socket extensions in 2", 6" and 12" lengths
5943-3 Three 1/4" square drive socket extensions in 2", 6" and 12" lengths

5180
Portable Multi Purpose C-Frame Press
• Lightweight (less than 28 lbs.) and durable, the 5180 portable press is perfect for bench top pressing applications.
• Use for all clamping, pressing, and bending needs. Ideal for welding and metal fabrication.
• Press can be positioned vertically or horizontally.
• Versatile 9” – 4-1/4” Open-Throat® design.
• Coupes to any 4- or 10-ton Porta Power pump.
• Base allows the operator to mount the press to a bench.
Set includes: C-Frame press with base, adapters: V-pushing and ram pushing (9/16” and 3/4" dia. shanks), receiving inserts, flat insert, storage case.
4781
Super Stubby Screwdriver Set
These screwdrivers are perfect for those limited access fasteners typically found on carburetors or in electrical compartments and many other areas.
- 2 Phillips and 2 straight screwdrivers included in set.

8262
Short Pick & Hook Set (4 Piece)
Consisting of four (4), 6.5”, soft-handled picks.
- They are sturdy, with both stainless steel shafts and tips, with assorted tip shapes designed for marking, removing O-rings, accessing snap rings and other assorted applications.
- Ergonomic handle design fits properly in the hand, allowing for easier holding of the tool.
- Multi-use tools to scribe, align pierce, clean or remove O-rings, shaft seals, CV boot and motorcycle fork seals and dust hoods.
- Packaged in a molded tray which can be placed in tool drawer.

4786
Aluminum Vice Inserts
Essential for every workbench vice. Aluminum jaws have reliefs for 5/16, 3/8, & 9/16 (7mm, 10mm, & 15mm) diameter shafts. Excellent for holding steel shafts without scratching or damage such as shocks, crankshafts, or any threaded bolts and shafts.

8203S
3-Piece Short Handled Pry Bar Set
A 3-piece Handled Pry Bar Set that includes 8”, 12” and 18” lengths for moving or separating components with maximum leverage. Each bar is made from tempered square steel for durability and strength. The dual durometer handle provides a comfortable and secure grip, reducing hand fatigue. A black chrome striking cap will take hammer blows without handle damage, and a polished tip and black oxide finish resists rust and wear during use. Covered by OTC’s Lifetime Warranty.

8203L
3-piece Long Handled Pry Bar Set
A set of 3 made-in-the-USA pry bars with comfortable, sturdy rubberized grips. Each bar is drop-forged in Minnesota with a hand-ground chisel end for wedging into tight spaces. Special tempered steel provides extra strength, durability and leverage for tough jobs. A dedicated striking cap provides a big target to drive the pry bar in to help separate components faster. Includes lifetime warranty.

8208     8” handled pry bar
8212     12” handled pry bar
8218     18” handled pry bar

7011
Ball Hone Set (10 piece)
- Ball Hones can be used for refinishing and resizing bores such as found in brake calipers, engine lifters, and u-joint yokes. Also useful for any bearing or bushing application.
- All hones are 180 grit Silicone Carbide for excellent cutting and finish.

8263
Long Pick & Hook Set (4 Piece)
Consisting of four (4), 9.25”, soft-handled picks.
- They are sturdy, with both stainless steel shafts and tips, with assorted tip shapes designed for marking, removing O-rings, shaft seals, CV boot and motorcycle fork seals and dust hoods.
- Includes a knurled shaft which allows good grip with grease or oil hands.
- Packaged in a molded tray which can be placed in tool drawer.

7044
Master Bushing Driver Set
- Enables you to remove and install bushings ranging from 10mm to 42mm in diameter, and 3/8” to 1-3/8” in diameter.
- Includes large, medium, and small driver handles and adapters all made of steel.
- Housed in a blow-molded storage case.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>7011-1</td>
<td>.375”  10 mm</td>
</tr>
<tr>
<td>7011-2</td>
<td>.500”  13 mm</td>
</tr>
<tr>
<td>7011-3</td>
<td>.625”  16 mm</td>
</tr>
<tr>
<td>7011-4</td>
<td>.750”  19 mm</td>
</tr>
<tr>
<td>7011-5</td>
<td>.875”  22 mm</td>
</tr>
<tr>
<td>7011-6</td>
<td>1.00”  25 mm</td>
</tr>
<tr>
<td>7011-8</td>
<td>1.25”  32 mm</td>
</tr>
<tr>
<td>7011-10</td>
<td>1.50”  38 mm</td>
</tr>
<tr>
<td>7011-12</td>
<td>1.75”  44 mm</td>
</tr>
<tr>
<td>7011-14</td>
<td>2.00”  51 mm</td>
</tr>
</tbody>
</table>

4410
Bell Hone Set
- Embossed to remove and install bushings ranging from 10mm to 42mm in diameter, and 3/8” to 1-3/8” in diameter.
- Includes large, medium, and small driver handles and adapters all made of steel.
- Housed in a blow-molded storage case.
4497A
Ratcheting Terminal Crimper
• Heavy-gauge steel crimping tool designed for insulated wire terminals.
• Ratcheting action crimps terminal to correct tightness on the wire, making crimping fast and easy.
• Insulated handles with compound mechanical leverage for power.
• For wire sizes: AWG 22-18 (0.6mm—1.0mm) red terminal; AWG 16-14 (1.3mm —1.6mm) blue terminal; AWG 12-10 (2.0mm—2.6mm) yellow terminal.

4484
Weatherpack Crimper Set
Manage environmentally-sealed connection systems with the OTC 4484 Weather Pack Crimper Kit. Weather pack connection systems are designed to protect against exposure to heat, moisture and contaminants. Includes:
• Two interchangeable crimping dies coverage wire range AWG 22 / 20-18 (DIN: 0.35 / 0.5-0.8mm) and AWG 16-14 / 12 (DIN: 1.0-2.0 / 3.0mm).
• Dies are magnetically secure and easily changed.
• Instructions clearly illustrate how to create a weather-proof seal.
• Connections found on motorcycles, Class 7 - 8 tractors, automobiles and more.
4484-1 Racheting Crimper Chassis
4484-2 Weather Pack Crimp Die Set
4484-3 Weather Pack Crimp Die Set

4411 Ratcheting Hose & PVC Cutter (Standard)
• Cuts hose and PVC up to 1-3/8” dia.
• Features metal frame and ergonomic handles for high leverage.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4412 Ratcheting Hose & PVC Cutter (Heavy Duty)
• Cuts hose and PVC up to 1-3/4” dia.
• Features metal frame and rubber padded ergonomic handles for high leverage and comfort.
• Compound ratcheting action provides maximum cutting power.
• Will also cut cable and wires.

4415 Motorcycle/ATV Lift
• 1,500 lb. capacity and 17” long skids that will lift the largest, widest cruisers.
• Lowest clearance available, 3-1/2” at lowest level, with a wide lift range of 3-1/2” to 16-3/4”.
• Removable handle provides 360° access to load.
• Features also include foot pedal release, locking rear casters, automatic safety lock, and two ratcheting tie down straps for safety.

4490 Magnetic Tray
• Rectangular, stainless steel tray is 9-1/2” x 5-1/2” and 1-1/4” deep. Holds tools and small metal parts so they don’t get lost or misplaced during repair work.
• Two heavy-duty magnets on bottom of tray have non-marring contact pads; will securely hold tray to metal objects such as a tool box, frame rail, fender, etc.

4509 Straight-Blade Hose Cutter
• Cuts rubber hoses ranging from 1/4” to 1-1/2”.
• Simply place hose in tool and squeeze handle to cut.
• Replacement steel cutter blade No. 4509-1 is available.

4509-1 Replacement hose cutter blade

4512 Snap Ring Pliers Set — Internal/External
• For internal or external snap rings; thumbscrew permits quick conversion.
• Made of heavy-gauge tempered steel.
• Includes two stainless steel handled picks.
• Contained in a blow-molded plastic storage case.

No. 4512 includes:
<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4512-1</td>
<td>.090” tip, straight pliers</td>
</tr>
<tr>
<td>4512-2</td>
<td>.090” tip, 90° pliers</td>
</tr>
<tr>
<td>4512-3</td>
<td>.070” tip, straight pliers</td>
</tr>
<tr>
<td>4512-4</td>
<td>.070” tip, 90° pliers</td>
</tr>
<tr>
<td>4512-5</td>
<td>.047” tip, straight pliers</td>
</tr>
<tr>
<td>4512-6</td>
<td>.047” tip, 90° pliers</td>
</tr>
<tr>
<td>4512-7</td>
<td>.038” tip, straight pliers</td>
</tr>
<tr>
<td>4512-8</td>
<td>.038” tip, 90° pliers</td>
</tr>
<tr>
<td>4512-9</td>
<td>straight tip pick</td>
</tr>
<tr>
<td>4512-10</td>
<td>90° tip pick</td>
</tr>
</tbody>
</table>
All items can be purchased separately.

1545 Motorcycle/ATV Lift
• 1,500 lb. capacity and 17” long skids that will lift the largest, widest cruisers.
• Lowest clearance available, 3-1/2” at lowest level, with a wide lift range of 3-1/2” to 16-3/4”.
• Removable handle provides 360° access to load.
• Features also include foot pedal release, locking rear casters, automatic safety lock, and two ratcheting tie down straps for safety.

4515 Mini Pick and Hook Set – 4-Piece
• Sturdy stainless steel points and shafts designed for marking, removing o-rings, accessing snap rings, and performing other tasks. Assorted angle tips allow you to reach awkward locations.
• Knurled shaft design enhances finger control for delicate jobs.

4512-9 straight tip pick
4512-10 90° tip pick
All items can be purchased separately.
Accutorg™ Clikker Torque Wrenches
These precision torque wrenches make a loud click when you’ve reached the torque setting. They feature ratcheting heads, all-metal construction, permanently roll-marked scales, and soft-grip rubber handles that enable you to firmly grasp the wrench for right- or left-hand torquing.
- Includes molded plastic case.
- One-year warranty.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Torque Range</th>
<th>Graduations</th>
<th>Square Drive</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7375</td>
<td>100–1000 in.-lb (11–113 N•m)</td>
<td>10 in.-lb</td>
<td>3/8”</td>
<td>15-1/8”</td>
</tr>
<tr>
<td>7377</td>
<td>10–150 ft.-lb (14–203 N•m)</td>
<td>2 ft.-lb</td>
<td>1/2”</td>
<td>17-3/4”</td>
</tr>
</tbody>
</table>

7380-E150
Digital Torque Wrench
- Displays torque in real time and at peak when torque is released.
- Torque value accuracy is ±1% clockwise (CW) and counterclockwise (CCW) from 10%–100% of full scale.
- Can be used to measure bearing preload torque values.
- Display starts at 1% to 250% of full scale; has a 5-digit, alpha-numeric LCD, and indicator icons for functions, units and battery.
- Indicators include green, yellow and red LED light, an audible buzzer, and vibration.
- 1/4” Drive, 36 tooth ratchet head.
Range 1.5 – 150 In Lb.

4629
Brass Hammer and Punch Set
- Brass-head hammer and punches are ideal to use where sparks from ferrous metals would be hazardous, or where precision metal parts could be damaged by steel tools.
- Two hammer head weighing 24 and 12 oz.
- Two tapered punches 14” x 5/8”, 10” x 5/8”.
- One hex tapped punch 8” x 5/8”.
- Two drift punches 10” x 3/4”, 8” x 1/2”.
- Two pin punches 6” x 3/8”, 4” x 1/4”.

4606
Brass Hammer and Punch Set
- Brass-head hammer and punches are ideal to use where sparks from ferrous metals would be hazardous, or where precision metal parts could be damaged by steel tools.
- Hammer head weighs 24 oz.; brass drift punch is 10” x 3/4” diameter; brass tapered punch is 8” x 5/8” hex tapered to 3/8” diameter point.

4602
Brass Punch Set (2 piece)
- Two large, brass non-sparking punches. Ideal for use near precision parts or in locations where sparks from ferrous metal could be hazardous.
- Includes an 8” punch (5/8” hex, tapered to 3/8”) and 10” straight punch (3/4” dia., chamfered at both ends).

4550
Scraper Set
Scraper feature polished, heat-treated, stiff, stainless steel blades. Handles are ergonomic two-component plastic and feature a non-slip grip and steel bolstered end. Packaged in a storage tray. Includes: 1-1/4” straight blade, 1-1/4” bent blade, and 2” straight blade tips.

4602
Brass Punch Set (2 piece)
- Two large, brass non-sparking punches. Ideal for use near precision parts or in locations where sparks from ferrous metal could be hazardous.
- Includes an 8” punch (5/8” hex, tapered to 3/8”) and 10” straight punch (3/4” dia., chamfered at both ends).

7163
Pry bar, 12” long.
7165
Pry bar, 18” long.

7375
Rolling Head Pry Bars
You’ll have a lot of leverage using one of these rolling head pry bars. The long, tapered body will also serve as an aligning drift.

4550
Scraper Set
Scraper feature polished, heat-treated, stiff, stainless steel blades. Handles are ergonomic two-component plastic and feature a non-slip grip and steel bolstered end. Packaged in a storage tray. Includes: 1-1/4” straight blade, 1-1/4” bent blade, and 2” straight blade tips.
4605
Interchangeable Punch and Chisel Set
• Safety protective handle allows easy grip and protects hand from being hit by hammer.
• 12 punches and chisels included: 5 flat chisels: 1/2”, 5/8”, 3/4”, 7/8”, and 1” wide blade 1 cape chisel: 1/4” wide blade 2 taper punches: 1/8” and 1/4” diameter 2 pin punches: 3/16” and 1/4” diameter 2 center punches: 1/8” and 3/16” diameter
• Double locking ball detent holds punch or chisel securely in the driver handle.
Replacement parts available:

4605-1 Drive handle
4605-2 1/2” wide flat chisel
4605-3 5/8” wide flat chisel
4605-4 3/4” wide flat chisel
4605-5 7/8” wide flat chisel
4605-6 1” wide flat chisel
4605-7 1/4” cape chisel
4605-8 1/8” taper punch
4605-9 1/4” taper punch
4605-10 5/16” pin punch
4605-11 1/4” pin punch
4605-12 1/8” center punch
4605-13 3/16” center punch

4600
Punch and Chisel Set (16 piece)
• Durable set of heat-treated chrome vanadium steel punches and chisels. Storage tray included.
Contents of set:
3 – Cold chisels (with gauge): 3/8” x 5-1/2”; 1/2” x 6”; 5/8” x 6-1/2”
2 – Center punches: 1/8” x 5”; 5/32” x 6”
5 – Pin punches: 3/32” x 4-1/4”; 1/8” x 4-3/4”; 5/32” x 5”; 3/16” x 5-1/4”; 1/4” x 5-3/4”
5 – Taper punches: 3/32” x 5-1/4”; 1/8” x 5-3/4”; 5/32” x 6”; 3/16” x 6-1/4”; 1/4” x 6-3/4”
1 – Chisel gauge

Impact Drivers
• Loosens hard-to-turn screws, bolts or nuts.
• Handle design prevents possibility of hitting hand with hammer when striking impact driver.
• Bit holder has 3/8” drive (No. 4608), 1/2” drive, and 5/16” hex for Phillips and flat screwdriver bits.
• Includes eight screwdriver bits:
  No. 2 Phillips bit, 1-3/8” long with 5/16” hex
  No. 2 Phillips bit, 3-1/8” long with 5/16” hex
  No. 3 Phillips bit, 1-3/8” long with 5/16” hex
  No. 3 Phillips bit, 3-1/8” long with 5/16” hex
  5/16” wide x 1-3/8” long with 5/16” hex slotted bit
  5/16” wide x 3-1/8” long with 5/16” hex slotted bit
  3/8” wide x 1-3/8” long with 5/16” hex slotted bit
  3/8” wide x 3-1/8” long with 5/16” hex slotted bit
4607 1/2” impact driver
4608 3/8” impact driver

4576
Universal C-Frame Nut Splitter
• Forged and heat-treated frame with offset handle works where ordinary nut splitters may fail. Smooth action cracks nuts without damaging bolt threads.
• Chisel rotates to line up parallel to bolt. Spits non-heat-treated nuts of 7/16” (11mm) through 3/4” (19mm) diameter. Tool is 6-3/4” in length.

4514
Mini Snap Ring Pliers Set (4 Piece)
• Small-size pliers for work in tight areas. Service S-ring and R-ring clips, internal or external, straight or angled. Ruggedly built of heat-treated chrome molybdenum steel.
• Set includes two internal snap ring pliers (one straight, one 45°) and two external snap ring pliers (one straight, one 45°).
• All pliers have .038” (1.0mm) diameter tips.
**Bench-Mounted Holding Fixture**

- Securely hold and rotate small engines, transmissions, and other components while you’re working on them.
- This holding fixture will handle pieces weighing up to 250 lbs., and it offers 360° of rotation with positive stops at 90° increments.
- Three sides of the mounted unit remain fully exposed.
- Base assembly only.

**Universal Outside Thread Chaser**

- This thread chaser will quickly restore threads on fork tubes, steering stems, axles, etc. to near original condition without the use of expensive thread-cutting equipment.
- Replaceable V-pads and dies.
- 1-1/4” to 5” O.D.

**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5550</td>
<td>Spectrum Solar10W LED Work Light with UV Top Light</td>
</tr>
<tr>
<td>5551</td>
<td>Spectrum Trio9W LED Work Light with 3W LED Top Light</td>
</tr>
<tr>
<td>5552</td>
<td>Spectrum 30+430 Pc. LED Work Light with 4 Pc. LED Top Light</td>
</tr>
</tbody>
</table>

**Spectrum Solar10W LED Work Light with UV Top Light**

- LI-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 ~ 240V; 50/60Hz; DC12V ~ 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 ~ 4.0 hours
- Active Time: 2.5 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5°F to 50°C
- PS: LED Sector: 170°
- At 50 cm: 350 LUX (750 LM)
- Waterproof Grade IP65
- Active Time: 3.0 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5°F to 50°C
- PS: LED Sector: 25°
- At 50 cm: 4000 LUX
- Waterproof Grade IP65

**Spectrum Trio9W LED Work Light with 3W LED Top Light**

- LI-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 ~ 240V; 50/60Hz; DC12V ~ 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 ~ 4.0 hours
- Active Time: 3.0 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5°F to 50°C
- PS: LED Sector: 25°
- At 50 cm: 4000 LUX
- Waterproof Grade IP65

**Spectrum 30+430 Pc. LED Work Light with 4 Pc. LED Top Light**

- LI-ION Rechargeable Battery – 3.6V 2250 mAH, AC/DC
- Charger Input AC 100 ~ 240V; 50/60Hz; DC12V ~ 24V
- Power Output: 5.0V 1000 mAH
- Charger Time: 3.5 ~ 4.0 hours
- Active Time: 4.0 to 5.0 hours
- Storage Temperature: -4°F to 158°F; -20°C to 70°C
- Operating Temperature: 23°F to 122°F; -5°F to 50°C
- PS: LED Sector: 15°
- At 50 cm: 2250 LUX
- Waterproof Grade IP65

**FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM**
# HEAVY-DUTY

Diesel Compression Testers ........................................... 160
Glow Plug Remover / Harness ........................................... 160
Injector Remover / Installers ........................................... 161
HD Drain Plug Pro™ ......................................................... 162
HD Oil Filter Wrenches .................................................... 162
HD Snap Ring Pliers .......................................................... 162
Sleeve Puller / Installer / Plates ......................................... 163–164
Clutch Tools ................................................................. 164–165
Locknut Sockets .............................................................. 166–167
Kingpin & Brake Anchor Pin Push ....................................... 168–169
Slack Adjuster Pullers ....................................................... 169
Brake Spring Pliers ........................................................... 170
Transmission Puller Sets ................................................... 170
Fuel Injectors .................................................................. 171
Nozzle Testers ................................................................. 172–173
Oil Filter Crushers / Fluid Receivers .................................. 174
Hendrickson Service Sets .................................................. 175–178
Freightliner Rear Suspension ........................................... 176
Transmissions Jacks .......................................................... 179
Power Train Lifts .............................................................. 180
Air Lifts / Driveline Lifts .................................................... 180–181
Clutch Lifts ..................................................................... 180
Under Axle Jacks .............................................................. 181
Service Jack .................................................................. 182
Engine Stand ................................................................. 183
Jack Stands ................................................................. 184
Bottle Jacks ............................................................... 185
Wheel Dollies & Track Ramps ........................................... 186
Tire Bead Seater Tire Spoons ........................................... 187–188
Hands Free Air Chuck, Tire Bead Breaker, Tire Hammers .... 189
Tire Spoon Holding Pliers .................................................. 190
Torque Wrenches ............................................................. 190
Floor Cranes ................................................................. 191–192
Collision Repair Sets ........................................................ 194
DEF Equipment ............................................................... 195
DPF Equipment ............................................................... 196–198
Diesel Compression Tester with Adapters
This easy-to-use compression tester is designed for light- and medium-duty diesel engines equipped with glow plugs. A dual-reading gauge, featuring a push-button release valve, measures compression to 1000 PSI and 7000 kPa. The hose end has quick disconnect fittings. The tester comes with glow plug and nozzle adapters in a handy storage case.
Tester services these engines:
• Cummins B and C
• Navistar DT466/DT360
• Ford/Navistar 6.9L & 7.3L
• Detroit 6.2L & 6.5L
• Hino diesel and Mitsubishi Fuso truck engines

5020 Diesel compression tester with adapters
5021 Universal diesel engine compression gauge

Replacement Adapters (available separately)
47484 Hino diesel truck engines with 12 mm x 1.25 thread
217791 Cummins B 3.9L 4 cyl. & 5.9L 6 cyl. ’89–’98
308472 Mitsubishi Fuso truck 4D & 6D engines with 10 mm x 1.25 thread
310810 Cummins C 8.3L 6 cyl. ‘88–’96
310832 Ford/Navistar 6.9L & 7.3L, Detroit 6.2L & 6.5L with 10 mm x 1.0 thread
310840 Navistar DT466/DT360

6076 Ford Diesel Compression Test Adapter
• Use with OTC No. 5021 diesel engine compression gauge.
• Remove glow plug; this adapter is used to connect the No. 5021 gauge to perform a compression test.

6668 Ford Diesel Compression Test Adapter
• Use with OTC No. 5021 diesel engine compression gauge.

6005A Glow Plug Remover
Set includes 10 mm and 12 mm split nuts, three spacers (3/16", 1/4", and 5/16"), plastic storage/organizer case and instructions. The 10 mm split nut will work on Ford 6.9L and 7.3L diesels; GM 6.2L, and 6.5L diesels; and various diesels in import vehicles. The 12 mm split nut works on various diesels in import vehicles, plus many agricultural and construction diesel applications.

6088 Ford 5-pin Connector Harness for Glow Plug Testing
• Provides an easy way to check glow plug resistance without having to remove the valve cover of 1994–98 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
• Used with any standard digital volt ohmmeter to check glow plug resistance.

7835 Ford Rear Main Oil Seal Kit
• A complete kit with the tools you need to correctly remove and install the rear main oil seal and wear ring on the crankshaft.
• Eliminates makeshift methods of seal removal and installation that could damage the new seal or crankshaft.
INJECTOR REMOVER / INSTALLERS
HEAVY DUTY TOOLS & EQUIPMENT

Detroit Diesel Injector Socket
Used on GM 6.2L and 6.5L engines. This 30 mm socket ensures proper fit during nozzle removal and installation. The 3/8” square drive and 7/8” hex permit easy access in tight quarters, and prevent damage to nozzle and related components.

Similar to Ford No. 303-491
No. 303-492

Cummins Diesel Fuel Injector Remover Kit
Kit contains a fuel injector connector tube remover and fuel injector puller. The fuel injector connector tube must be removed before removal of the injector, or both will be damaged.

Similar to Miller 8318

Cummins Engine Barring Tool
Insert the tool into the flywheel housing until it engages the ring gear, then attach a 1/2” square drive ratchet or breaker bar and turn. The tool’s load-bearing collar provides friction-free operation while rotating the tool in the housing.
• Works on Cummins B and C series diesel engines and 5.9L liter diesels used in Dodge pickups.

Diesel Engine Barring Socket
• Designed to rotate engine on a Mack E7 and Cat 3208.
• Similar to J-38587-A

GM Injection Pump Wrench Set
• Use to loosen or tighten injection pump retaining bolts whenever pump timing adjustment or pump service is required. Services 1996–1999 GM full-size 2- and 4-wheel drive trucks, vans, and Suburbans with 6.5L diesel engine.
• Two specially bent wrenches are needed, due to the location of the throttle, cruise control, T.V. cable bracket, cooling system crossover pipe and bracket, and the thermostat housing on vans and pickups.
• Wrenches are 15 mm, 12-point, double box-end type.

GM Duramax Injector Pullers
• Designed to pull injectors on a GM Duramax 6.6L engines.
6778
From 2001 - 2004, Similar to J-44639.
6779
From 2005 - 2011, Similar to J-46594.

Similar to Ford 303-625

Ford High Pressure Oil Line Disconnect Tool
• Use to disconnect the high pressure oil line from the cylinder head.
• Works on 1998–2003 Ford vans and trucks with 7.3L direct-injected, turbo-charged (DIT) diesel engines.

Similar to Ford No. 303-491
No. 303-492

Farmer Injector Remover / Installer Kit
Removes and installs injectors without damaging the injector or cylinder head.

Similar to Miller 8318

Diesel Fuel Pressure Gauge
• Designed to test fuel pressure on GM Duramax diesel engines.
• Similar to J-44638.

Diesel Fuel Pressure Gauge
Designed to test fuel pressure on GM Duramax diesel engines.

Similar to Kent-Moore J-41089

Similar to Ford 303-113

Diesel Engine Barring Socket
Designed to rotate engine on a Mack E7 and Cat 3208.
• Similar to J-38587-A.
OIL FILTER WRENCHES
HEAVY DUTY TOOLS & EQUIPMENT

7248
C-Frame Press
- The C-Frame used in conjunction with OTC Ball Joint Adapters. Can also be used for removing/installing; universal joints with needle bearings, pressed in wheel studs, and brake anchor pins on heavy-duty vehicles. Suitable for general pressing operations.

6935
U-Joint Service Adapter
For use with the 7248 C-Frame to service the u-joints found on Dana 60 4WD front drive axles.

Application:
- 1977-1991 Chevrolet and GMC 1 Ton
- 1975-2010 Dodge ¾ & 1 Ton
- 2000-2002 Ford Excursion
- 1999-2008 F450 • 1999-2004 F550
- 1975-2010 Dodge ¾ & 1 Ton
- 1999-2010 F250 • 1985-2010 F350
- 2000-2002 Ford Excursion

Adjustable Oil Filter Pliers
- Slip-joint ratchet and lock mechanism allows more leverage applied, the tighter it grips.
- Sized to fit hydraulic cylinders on vehicles having gland nuts from 2” to 6” diameter pin to pin. Includes reversible pins, sizes 1/4” and 5/16” diameter.
- Accommodates a 3/4” drive ratchet or breaker bar.

4513
Heavy-Duty Snap Ring Pliers Set (2 piece)
- Heat treated steel “circlip” pliers for large equipment repair.
- Replaceable tips and spring ratchet locking mechanism to securely hold against snap ring tension.
- Internal pliers’ capacity 3-1/16” to 6-1/4” (78 mm to 159 mm) snap rings.
- External pliers’ capacity 3-1/2” to 6-1/2” (89 mm to 165 mm) snap rings.
- Blow-molded storage case includes extra sets of replaceable tips.
- Overall length 16”; handle length 12-1/2”.

4513 includes:

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4513-1</td>
<td>Internal snap ring pliers</td>
</tr>
<tr>
<td>4513-2</td>
<td>External snap ring pliers</td>
</tr>
<tr>
<td>4513-3</td>
<td>(2) 12” (3 mm) straight tip</td>
</tr>
<tr>
<td>4513-4</td>
<td>(2) 12” (3 mm) 45° tips</td>
</tr>
<tr>
<td>4513-5</td>
<td>(2) 12” (3 mm) 90° tips</td>
</tr>
<tr>
<td>4513-6</td>
<td>4 tip retaining screws</td>
</tr>
</tbody>
</table>

Retaining Ring Pliers

7300 Internal, straight tip retaining ring pliers. 16” long.
7301 External, straight tip retaining ring pliers. 16” long.

See page 110 for replacement tips.

Giant Adjustable Wrenches

The really big jobs call for really big tools. These wrenches will handle 42 bolt sizes from 1-3/8” to 4-3/4”. Together, both wrenches weigh just 41 lbs., but can replace over 1,000 lbs. of fixed-size wrenches.

7640 Giant adjustable wrench. Rated to withstand 2,000 ft. lbs. of torque. Nut/bolt size 1-3/8” to 2-7/8”. Increments of Jaw adjustment 1/8”, length 24”. Head thickness 7/8”.
7641 Giant adjustable wrench. Rated to withstand 5,000 ft. lbs. of torque. Nut/bolt size 2-3/4” to 4-3/4”, Increments of Jaw adjustment 1/8”, length 36”. Head thickness 1-1/8”.

4555 Heavy-Duty Oil Filter Wrench
- Fits filters ranging from 4-1/8” to 4-3/4” (104 mm to 120 mm) in diameter.
4556 Heavy-Duty Oil Filter Wrench
- Fits filters ranging from 4-1/2” to 5-1/4” (115 mm to 135 mm) in diameter.
4557 Heavy-Duty Oil Filter Wrench
- Fits filters ranging from 5” to 5-3/4” (125 mm to 145 mm) in diameter.

Adjustable Oil Filter Pliers
- Forged jaws with sure-grip teeth grab the filter for easy removal.
- Slip-joint ratchet and lock mechanism allows a secure grip on filters.

4560 Small Adjustable Oil Filter Pliers. Pliers is 13-1/2” long and fits filters ranging from 2-1/4” to 5” (57 mm to 127 mm) in diameter.
4561 Large Adjustable Oil Filter Pliers. Pliers is 18” long and fits filters ranging from 3-3/4” to 7” (95 mm to 178 mm) in diameter.
4562 Adjustable Oil Filter Pliers Set. Includes both the No. 4560 and No. 4561 listed above.

5961HD Heavy-Duty Drain Plug Pro™
- For Agricultural, Commercial, and Heavy Duty Vehicle Applications
- Remove fluid drain plugs without touching the plug or hot fluids!
- NO touching HOT plugs.
- NO HOT fluids on hands.
- Just magnetically attach heavy-duty drain plug pro™ to pre-loosened drain plugs and rotate to remove.
- Magnetic attachment for internal 1/2” square drive drain plugs.
- Magnetic attachment for large drain plugs.

5028 Slide Hammer Puller
- Just 8-1/2” long to fit into tight spots, but its 1-1/2 pound hammer gives you a little extra muscle for stubborn jobs. It’s perfect for pulling injector nozzles. The shank is threaded 1/2” – 20 and has a 5/8” – 18 threaded adapter included. Works with many OTC pulling attachments.
Sleeve Puller / Installer Sets

These sets work on a wide array of truck, bus, and tractor engines, as well as those in other vehicles. They’ll handle wet and dry sleeves – and you won’t need to remove head studs. Save time, effort, and money.

- Choice of two sets: manual or 17-1/2 ton hydraulic powered.
- Wide range of adapter plates available to fit most engines.

**1200 Manual Sleeve Puller Set**

This manually operated, screw-powered device removes cylinder sleeves from most truck, bus, and tractor engines. Adapter plates (not included in the set) accommodate a wide range of bore sizes. See application chart below. The puller enables one technician to handle sleeve-pulling tasks. Not recommended for Mack engines (use No. 1202 set).

**1201 Installing Conversion Kit for 1200 Set**

Permits the No. 1200 sleeve puller to handle both removing and installing operations. Use plate Nos. 1219–1250 for removing. Plates are not included in the set) accommodate a wide range of bore sizes. See application chart below. The puller enables one technician to handle sleeve-pulling tasks. Not recommended for Mack engines (use No. 1202 set).

**1202 Installing Conversion Kit for 1200 Set**

Permits the No. 1200 sleeve puller to handle both removing and installing operations. Use plate Nos. 1253–1256 for installing, and plate Nos. 1219–1250 for removing. Plates are not included with kit.

**Sleeve Puller Plate Application Chart**

| Dia. | Plate No.
|------|----------
| 4”   | 1227     |
| 4-3/4” | 1240     |
| 5”   | 1250     |
| 5-1/8” | 1242     |
| 5-1/2” | 1225     |
| 5-5/8” | 1232     |
| 5-7/8” | 1222     |
| 5-11/16” | 1222  |
| 5-7/8” | 1225     |
| 5-7/8” | 1225     |
| 5-11/16” | 1222  |
| 5-1/8” | 1230     |
| 5-1/4” | 1240     |
| 5-1/2” | 1235     |
| 5-1/4” | 1232     |
| 5-3/4” | 1240     |
| 5-1/2” | 1246     |
| 5-1/2” | 1245     |
| 5-1/8” | 1245     |
| 5-1/2” | 1223     |

**Universal Puller for Wet-Type Sleeves**

This tool will remove cylinder sleeves faster than ordinary pullers because it requires very little setup time. Cone adjustment positions the puller jaws quickly, locking bar is tightened. To aid in breaking “frozen” sleeves loose, adjustable bridge is positioned on the cylinder block and the bearing-mounted forcing nut is tightened. Next, bridge is removed and slide hammer assembly is attached. With a few sharp hammer blows, sleeve is pulled. In most cases, job time will average less than two minutes per cylinder. The puller features a 5 lb. slide hammer to help bust loose even the most stubborn sleeves.

- Special adapters are unnecessary.
- Adjustable jaws fit sleeves 3” to 6-1/2” in diameter.

**1205 Universal Puller for Wet-Type Sleeves**

Removes and installs sleeves of many makes and models of trucks, buses, and tractors.

1. Sleeve puller without hydraulic assembly.

2. Sleeve puller with hydraulic assembly.

**Sleeve Puller / Installer Sets**

Manual Sleeve Puller Set

Hydraulic Sleeve Puller Set

Sleeve Removal Plates

Sleeve Puller / Installer Sets

Manual Sleeve Puller Set

Hydraulic Sleeve Puller Set

Sleeve Removal Plates

17-1/2 Ton Hydraulic Sleeve Puller Set

Sleeve Puller / Installer Sets

Manual Sleeve Puller Set

Hydraulic Sleeve Puller Set

Sleeve Removal Plates
Sleeve Installation Plates
Each of these dry-sleeve installation plates covers a range of bore sizes. Their reversible design makes both sides usable. The plates work with our manual or 17-1/2 ton hydraulic pulver/installers. (Nos. 1200, 1202, and 1203). Check chart at below to ensure correct sleeve selection.

<table>
<thead>
<tr>
<th>Fits Sleeves From</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-3/16” to 3-7/16”</td>
<td>3-7/8”</td>
<td>3.171”</td>
<td>3.421”</td>
<td>1252</td>
</tr>
<tr>
<td>3-9/16” to 3-7/8”</td>
<td>4-1/4”</td>
<td>3.546”</td>
<td>3.859”</td>
<td>1253</td>
</tr>
<tr>
<td>4-1/8” to 4-3/8”</td>
<td>4-3/4”</td>
<td>4.109”</td>
<td>4.359”</td>
<td>1254</td>
</tr>
<tr>
<td>4-3/8” to 4-3/4”</td>
<td>5-1/4”</td>
<td>4.390”</td>
<td>4.734”</td>
<td>1255</td>
</tr>
<tr>
<td>4-13/16” to 5-3/4”</td>
<td>6-3/8”</td>
<td>4.797”</td>
<td>5.734”</td>
<td>1256</td>
</tr>
</tbody>
</table>

5039
Charged Air Cooler Tester
This is the easy way to find air leaks in the charged air cooler systems used on class 7 & 8 truck engines. The tester features a large 2-1/2”, 0-60 PSI pressure gauge, regulator and relief valve, and two safety cables. It also has quick disconnect air fittings that attach to a 3”, 3-1/2”, or 4” cooler hose.

5071
Cummins Water Pump Pulley Tool
This heavy-duty tool is designed to remove or install water pump pulleys on Cummins L10 and M11 engines, 1991 and newer. The installer has a rugged thrust bearing that allows for friction-free pulley installation without damaging pump components.

5022
Oil Seal and Wear Ring Installer
This two-piece tool makes the difficult job of correctly installing the rear crankshaft seal and wear ring on most Navistar DT-360 and DT-466 engines thru 1996 an easy task. Bolt the adapter to the crankshaft and wrench the component home.

• Eliminates damage to seals or wear ring that can occur when driving them into place.

7106
Cylinder Liner Height Gauge with Hold-Down Bar
This set lets you meet those exacting specifications necessary for optimum diesel engine performance. It accurately measures cylinder bore flatness and depth. The hold-down bar correctly seats the liner for accurate measurement of liner protrusion. The easy-to-read dial is in .001 inch graduations, 1.000” range.

7119
Compressor Drive-Gear Coupling Puller
Here’s the solution for removing the coupling from the Cummins Compact and Bendix air compressors found on many Cummins 855 cubic inch engines. The split collet design fits over the coupling, and mechanical force does the work.

• Works on compressors with 1-3/4” O.D. shaft.

7470
Cummins Diesel Injector Timing Kit
Measures static timing on Cummins J, K, N, NH, V-12, N-14, and L-10 series diesel engines. With this tool you can determine the injector push tube travel in relation to piston travel. Tool is installed with one dial indicator in the injector bore and the other on the injector push tube. Turn the engine over manually to find top dead center. By checking the gauges, you can determine if timing is within factory specifications, then make adjustments to the cam followers.

7028
Clutch-Adjusting Wrench
This clutch-adjusting wrench will solve the difficult, time-consuming job of internally adjusting heavy-duty Spicer clutches. Using this wrench is much quicker and easier than makeshift methods such as pry bars, which often result in component damage, poor job performance, or extra downtime.

5044
Self-Adjusting Clutch Rotating Tool
This handy tool replaces the self-adjuster mechanism on Spicer self-adjusting clutches, allowing you to manually adjust them with a wrench or socket.

• 3/4” hex drive.

Pilot Bearing Pullers
These tools make quick work of pulling stubborn, rusted pilot bearings. No. 5048 fits 1-1/4” I.D. bearings, and No. 5049 fits 1” I.D. bearings. The puller’s forcing screw expands the jaws inside the bearing and simultaneously pushes against the crankshaft.

5048
Pilot bearing puller for 1-1/4” I.D.
5049
Pilot bearing puller for 1” I.D.
• and machine type u-joints with bolt-retained to 1880 and nearly all other heavy-duty truck bolt-retained universal joints. Fits series 1610 and 1710 Meritor RPL 20 and 25 “Permalube” Series.

**Heavy-Duty Bearing Cup Installer**

Quickly and easily installs bearing cups on heavy-duty truck bearing cap.

**Gauge lets you determine the amount of travel yoke and the bearing's wear pad. The other checks the amount of free play between the ensuring their correct operation. One gauge adjustment of pull-type, heavy-duty clutches,**

**Truck Clutch Adjustment Set**

5192

**Heavy-Duty U-Joint Puller**

The ideal tool for disassembling drivelines.

- May be used with up to a one-inch impact wrench.
- Quickly and easily removes sealed U-joint cups without the need for hammering or heat.
- Will not damage the driveshaft, yoke, bearing cups, or joints.
- Fits practically all Class 7 and 8 trucks, including: Spicer driveline 1610, 1710, 1760, 1810, 1880 Spicer SPL 140, 170, 250 and 350 “Life Series” Meritor (Rockwell) 16N, 17N, 18N, 1710Meritor RPL 20 and 25 “Permalube” Series.

**5190A**

**Heavy-Duty U-Joint Puller**

Quickly and easily installs bearing cups on bolt-retained universal joints. Fits series 1610 to 1880 and nearly all other heavy-duty truck and machine type u-joints with bolt-retained bearing cups.

- Automatically aligns bearing cups during installation.
-Eliminates the possibility of damage to the needle bearing.

**5191**

**Heavy-Duty Bearing Cup Installer**

Quickly and easily installs bearing cups on Dana/Spicer SPL “Life Series’ quick-disconnect universal joints.

- Three individual adapters press bearings to the manufacturer’s recommended depths.
- Adapters fit Spicer SPL 140, 170, and 250 series drivelines.

**7490**

**U-Joint Tool**

Designed for a 1/2” impact wrench, this U-joint tool removes even the most stubborn U-joints with ease. It’s compact and easily set up, making it ideal for service calls. And it can be used at different angles and in tight places, eliminating those damaging makeshift methods. The puller’s legs have holes for bolt storage.

- Bolts included: 5/16”-24 x 1-1/2”, 3/8”-24 x 1-1/2”, 7/16”-20 x 1-1/2”, M8-1.25 mm x 35 mm.
- Works on most Dana Spicer and Meritor U-joints – except Spicer’s “Life series model SPL-250D.

**5043**

**Clutch Service Set**

Here’s an ideal companion set to the clutch handler. Designed for Spicer heavy-duty clutches, the nine tools in this set help with a variety of jobs, from clutch installation and removal to flywheel drive-pin installation to clutch adjustment.

- Includes handy plastic carrying case.

**5044**

**Self-adjust clutch rotating tool. Rotates adjusting ring.**

**5045**

**Flywheel drive pin installing tool. Aligns and installs drive pins in 14” heavy-duty truck pot-type flywheels.**

**5046**

**Clutch release tool. Removes shipping blocks from between clutch housing and release bearing.**

**7028**

**Adjusting wrench. For internal adjustment of multiple lever and angle-spring clutches.**

**7073A**

**Clutch alignment tool. 1-3/4” O.D. Provides perfect fit to spline of clutch disc.**

**7074A**

**Clutch alignment tool. 2” O.D. Provides perfect fit to spline of clutch disc.**

**213013**

**Pair of 3/8” flywheel to clutch guide pins.**

**213014**

**Pair of 7/16” flywheel to clutch guide pins.**

**213015**

**Hex key Wrench. Removes/installs flywheel drive pin set screws.**

* Tool is available separately.
# HEAVY DUTY LOCKNUT SOCKETS
## HEAVY DUTY TOOLS & EQUIPMENT

Wheel bearing locknuts are easy to remove or install with these specially designed sockets. They’re made of high-strength steel and resist rounding out.

**NOTE:** Sockets are designed for use with 3/4" square-drive manual tools only. Impact tool use voids sockets’ warranty.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>2-3/32&quot; (6 pt.)</td>
<td>1923</td>
<td>2-3/4&quot; (6 pt.)</td>
<td>1924</td>
<td>3-3/8&quot; (8 pt.)</td>
<td>1940</td>
<td>4-1/8&quot; (8 pt.)</td>
</tr>
<tr>
<td>1920</td>
<td>2-1/4&quot; (6 pt.)</td>
<td>1937</td>
<td>2-3/4&quot; (8 pt.)</td>
<td>1910</td>
<td>3-1/2&quot; (6 pt.)</td>
<td>1916</td>
<td>4-3/8&quot; (6 pt.)</td>
</tr>
<tr>
<td>1902</td>
<td>2-3/8&quot; (6 pt.)</td>
<td>1932</td>
<td>2-7/8&quot; (6 pt.)</td>
<td>1911</td>
<td>3-1/2&quot; (8 pt.)</td>
<td>1917</td>
<td>4-1/8&quot; (8 pt.)</td>
</tr>
<tr>
<td>1903</td>
<td>2-3/8&quot; (8 pt.)</td>
<td>1933</td>
<td>2-7/8&quot; (8 pt.)</td>
<td>1925</td>
<td>3-3/4&quot; (8 pt.)</td>
<td>1938</td>
<td>4-1/2&quot; (8 pt.)</td>
</tr>
<tr>
<td>1904</td>
<td>2-9/16&quot; (6 pt.)</td>
<td>1906</td>
<td>3&quot; (6 pt.)</td>
<td>1926</td>
<td>3-3/4&quot; (6 pt.)</td>
<td>1941</td>
<td>4-13/16&quot; (8 pt.)</td>
</tr>
<tr>
<td>1905</td>
<td>2-9/16&quot; (8 pt.)</td>
<td>1907</td>
<td>3&quot; (8 pt.)</td>
<td>1927</td>
<td>3-13/16&quot; (8 pt.)</td>
<td>1918</td>
<td>4-7/8&quot; (6 pt.)</td>
</tr>
<tr>
<td>1928*</td>
<td>2-9/16&quot; (6 pt.)</td>
<td>1908</td>
<td>3-1/4&quot; (6 pt.)</td>
<td>1912</td>
<td>3-7/8&quot; (6 pt.)</td>
<td>1919</td>
<td>4-7/8&quot; (8 pt.)</td>
</tr>
<tr>
<td>1922</td>
<td>2-5/8&quot; (6 pt.)</td>
<td>1909</td>
<td>3-1/4&quot; (8 pt.)</td>
<td>1913</td>
<td>3-7/8&quot; (8 pt.)</td>
<td>1939</td>
<td>5-1/4&quot; (6 pt.)</td>
</tr>
</tbody>
</table>

Measure from flat to flat to determine size of locknut, then consult chart to find the correct socket.

- Fits special "rounded" hex nut found on Dana axles of some Ford trucks.
- Depth of locknut sockets is 5".

### Metric Truck Wheel Bearing Locknut Sockets

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1950M</td>
<td>54 mm (6 pt.)</td>
<td>1955M</td>
<td>80 mm (6 pt.)</td>
<td>1962M</td>
<td>100 mm (8 pt.)</td>
</tr>
<tr>
<td>1951M</td>
<td>55 mm (6 pt.)</td>
<td>1956M</td>
<td>82 mm (8 pt.)</td>
<td>1959M</td>
<td>106 mm (8 pt.)</td>
</tr>
<tr>
<td>1952M</td>
<td>60 mm (6 pt.)</td>
<td>1957M</td>
<td>90 mm (8 pt.)</td>
<td>1960M</td>
<td>110 mm (8 pt.)</td>
</tr>
<tr>
<td>1953M</td>
<td>70 mm (6 pt.)</td>
<td>1958M</td>
<td>94 mm (8 pt.)</td>
<td>1961M</td>
<td>120 mm (6 pt.)</td>
</tr>
<tr>
<td>1954M</td>
<td>71 mm (6 pt.)</td>
<td><strong>5059</strong></td>
<td><strong>5047LP</strong></td>
<td><strong>5047LP</strong></td>
<td><strong>5047LP</strong></td>
</tr>
</tbody>
</table>

### Hubcap Installer

Truckers like chrome, and many of them accent their truck’s drive axle with chrome hubcaps designed to snugly fit around the axle-shaft bolts. Unfortunately for service shops, these hubcaps are often tricky to install without causing damage. That’s where our hubcap installer comes in handy. Constructed of high-density polyethylene, this tool guides the cap into place over the axle nuts, protecting it from unwanted and costly dents.

### Lug Nut Cap Remover

Chrome-plated lug nut caps found on many heavy-duty trucks and trailers can be tough to remove, and they’re easily damaged if you pry them off or use an ordinary cap remover. This tool avoids those problems. It is ruggedly built and features specially coated jaws that won’t slip off the caps; no matter how much squeezing force you apply.

- **5047LP Lug Nut Cap Remover Locking Pliers**
  - Designed to remove lug nut caps found on heavy duty truck and trailers quickly and easily without damage. Caps can be easily damage by prying or using standard cap removers.
  - Locking pliers design with specially coated jaws apply maximum grip on the lug nut caps without damage.

*Depth of locknut sockets is 5".*

9850

<table>
<thead>
<tr>
<th>No.</th>
<th>Qty.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>1</td>
<td>Locknut socket (2-3/32&quot;)</td>
</tr>
<tr>
<td>1902</td>
<td>1</td>
<td>Locknut socket (2-3/8&quot;)</td>
</tr>
<tr>
<td>1904</td>
<td>1</td>
<td>Locknut socket (2-9/16&quot;)</td>
</tr>
<tr>
<td>1906</td>
<td>1</td>
<td>Locknut socket (3&quot;)</td>
</tr>
<tr>
<td>1908</td>
<td>1</td>
<td>Locknut socket (3-1/4&quot;)</td>
</tr>
<tr>
<td>1910</td>
<td>1</td>
<td>Locknut socket (3-1/2&quot;)</td>
</tr>
<tr>
<td>1912</td>
<td>1</td>
<td>Locknut socket (3-7/8&quot;)</td>
</tr>
<tr>
<td>1914</td>
<td>1</td>
<td>Locknut socket (4&quot;)</td>
</tr>
<tr>
<td>1915</td>
<td>1</td>
<td>Locknut socket (4-1/8&quot;)</td>
</tr>
<tr>
<td>1916</td>
<td>1</td>
<td>Locknut socket (4-3/8&quot;)</td>
</tr>
<tr>
<td>1918</td>
<td>1</td>
<td>Locknut socket (4-7/8&quot;)</td>
</tr>
<tr>
<td>1920</td>
<td>1</td>
<td>Locknut socket (2-1/4&quot;)</td>
</tr>
<tr>
<td>1921</td>
<td>1</td>
<td>Locknut socket (2-1/2&quot;)</td>
</tr>
<tr>
<td>1922</td>
<td>1</td>
<td>Locknut socket (2-5/8&quot;)</td>
</tr>
<tr>
<td>1923</td>
<td>1</td>
<td>Locknut socket (2-3/4&quot;)</td>
</tr>
<tr>
<td>1926</td>
<td>1</td>
<td>Locknut socket (3-3/4&quot;)</td>
</tr>
<tr>
<td>1928</td>
<td>1</td>
<td>Locknut socket (2-9/16&quot; rounded)</td>
</tr>
<tr>
<td>1932</td>
<td>1</td>
<td>Locknut socket (2-7/8&quot;)</td>
</tr>
<tr>
<td>1934</td>
<td>1</td>
<td>Locknut socket (3-1/8&quot;)</td>
</tr>
<tr>
<td>1936</td>
<td>1</td>
<td>Locknut socket (2-3/8&quot; rounded)</td>
</tr>
<tr>
<td>1939</td>
<td>1</td>
<td>Locknut socket (5-1/4&quot;)</td>
</tr>
</tbody>
</table>
HEAVY DUTY LOCKNUT SOCKETS

HEAVY DUTY TOOLS & EQUIPMENT

Tubular Spanner Wrenches
- Six-lug, spanner-type wrenches remove and install rear wheel bearing locknuts. They’re built for use with a 3/4” square-drive ratchet or breaker bar.

Budd Wheel Sockets
- Metric sizes for Isuzu, Hino, Mitsubishi Fuso, and import trucks; fit front and rear axle wheels.
- 1-1/2” hex Budd wheel socket for American-made trucks with dual rear wheels. These sockets work on the import truck Budd wheels. Their extra deep design lets you remove both nut and stud with just the one socket. Usable with a 1” square drive impact wrench.


1945A
- 35 mm hex socket with 17 mm sq.
1946A
- 38 mm hex socket with 20 mm sq.
1947A
- 41 mm hex socket with 21 mm sq.
1948A
- 33 mm hex Budd wheel socket. For Mack Midliners, White Volvo, and other import trucks with dual rear wheels.

1949A
- 1-1/2” hex Budd with 13/16” square wheel socket. For American-made trucks with dual rear wheels.

Wheel Pinion Sockets
- Designed to fit the axle nut on Chevy Topkick/Kodiak, 2003 - Newer.
- Similar to J-44275.

Jimmy Bars
- We’ve forged these bars from chrome alloy steel, then heat-treated them to resist bending and breaking.

<table>
<thead>
<tr>
<th>No.</th>
<th>Qty.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7166</td>
<td>5/8” diameter, 18” long</td>
<td></td>
</tr>
<tr>
<td>7167</td>
<td>3/4” diameter, 24” long</td>
<td></td>
</tr>
<tr>
<td>7168</td>
<td>7/8” diameter, 30” long</td>
<td></td>
</tr>
<tr>
<td>7420</td>
<td>7/8” diameter, 46” long</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socket No.</th>
<th>Opening Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>2” (6 pt.)</td>
</tr>
<tr>
<td>1976</td>
<td>2-1/8” (6 pt.)</td>
</tr>
<tr>
<td>1977</td>
<td>2-1/4” (6 pt.)</td>
</tr>
<tr>
<td>1978</td>
<td>2-3/8” (6 pt.)</td>
</tr>
<tr>
<td>1979</td>
<td>2-5/8” (6 pt.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socket No.</th>
<th>Opening Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>2-3/4” (6 pt.)</td>
</tr>
<tr>
<td>1981*</td>
<td>2-1/2” (6 pt.)</td>
</tr>
</tbody>
</table>

NOTE: Use sockets with 3/4” square-drive, manually powered handles only. Warranty void if tool is subjected to impact wrench use.
STEERING / SUSPENSION TOOLS
HEAVY DUTY TOOLS & EQUIPMENT

Kingpin & Brake Anchor Pin Pusher
With this pin remover, hydraulic force and precision tooling replace torch-and-hammer methods for getting the job done quickly and easily. Five special collars and two pins allow this unit to work on both straight and tapered kingpins and accommodates sizes from 7/8” to 2” in diameter and up to 11-1/4” long. The tool delivers 30 tons of hydraulic force to push out even the most corroded kingpins. A job that could consume the better part of a day is done in minutes. The anchor pin can be removed quickly by using the special adapter installed in the pusher’s base block and the unit positioned over the brake’s spider.

• Works on many models of trucks and buses.
• 27-1/2” high x 8-1/2” wide.
• 30-ton capacity.
• Set includes No. 4002 hydraulic hand pump, No. 9767 hose, No. 9798 hose-half coupler, No. 4121 Power Twin 30-ton ram, and No. 29424 anchor pin adapter.

4240A Complete kingpin and anchor pin pusher set with hydraulics
4241 King- and anchor-pin pusher with anchor pin adapter without hydraulics
29424 Anchor pin adapter only

5053 Mack Kingpin Socket
Here is a socket that makes life a little easier for anyone who works on Mack trucks. Designed for 1/2” square drive ratchet or breaker bar, the socket fits the slotted adjusting screw in tapered kingpins used on most Mack front axles (12,000 to 20,000 lbs.).
• Socket O.D. 1.8”

6065 Tie Rod Socket for Medium-Duty Trucks
• Services GM-, Ford-, and Chrysler-built 1-ton 2WD and 4WD trucks.
• Also works on medium-duty Class 2 through Class 6 trucks.
• Use with a 1/2” drive impact wrench to easily remove the tie rod ends from the tie rod.
• Socket I.D. 2-1/8”

5068 Truck Tie Rod Socket
Designed to withstand the force of a 3/4” drive impact wrench, this rugged socket makes truck tie-rod end removal quick and simple.
• Works on inner and outer tie rod ends on 12,000 to 16,000 lb. truck axles.
• Socket I.D. 2-3/4”

7503HD Heavy Duty Tie Rod and Ball Joint Remover
A universal heavy-duty puller that removes a wide range of tie rods and ball joints from a variety of cars, trucks, SUVs and heavy-duty vehicles. The 7503HD has a 10-ton pulling capacity, twice the force applied by the original 7503. Jaw spread and reach are increased to 3 and 4 inches for a wider variety of applications and larger vehicles. A heavier duty forcing screw is used, measuring 3/4” - 10, 6 1/2 long with interchangeable tips including cone, flat and cup for multiple applications. The tool will also remove pitman arms and can be used in many pulling situations that require a 2 jaw puller on other vehicles types and machinery.

• Socket O.D. 2-3/4”

5079 Heavy-Duty Power Steering Pump Analyzer
• There is only one way to troubleshoot problem components in a heavy-duty power steering system: a flow and pressure reading meter. OTC’s new No. 5079 measures both: 1 to 10 gallons oil flow and up to 3,000 psi of pressure.
• When connected in line, this universal analyzer will isolate the failed components in just minutes. There is no wasted time as in trial and error methods.
• The set is complete with high pressure hoses, 9/16” - 18 standard fittings, and quick disconnect couplers to handle Eaton/ Vickers, TRW, Ross, and Shepard power steering systems.

223018 Accessory fitting kit.

4295 Wheel Stud Service Kit
• Works on most hubs for installation and removal.
   – All sizes of studs.
   – Installation done by pushing on the head, eliminating the need for threaded adapters.
   – Reduces number of adapters required
   – Reduces damage to studs
   – Increases ease of use
• Remove and install 10 studs in only 10-15 minutes (compare to 20-30 minutes for more expensive competitive products).
• Can be powered with an impact wrench, no hydraulic power source required.
• No need to remove hub from vehicle.
• Reduces risk of damage to hubs, studs, and bearings when using tool.
• Weighs only 12 lbs., assembled to remove studs and 14 lbs., assembled to install studs.

SEE PAGE 43 FOR GREASE GUNS
7180
Universal Bearing Cup Installer
This handy, adjustable tool is designed to install wheel-bearing cups in a wide range of heavy-duty axles. Simply adjust and lock the jaws to the cup I.D., slip on the new cup, set it in the bore, and drive it in with a hammer. The tool helps eliminate the damage caused by makeshift methods.
- Works on axles from 11,000 to 50,000 lb. capacity.
- Adjusts to fit 3-5/8" to 6-1/2" O.D. bearing cups, which adds up to as many as 30 individual drivers.

5080A
Truck Front Leaf Spring, Pin, and Bushing Service Set
- Delivers 10 tons of hydraulic force to remove and install truck front spring eye bushing assemblies quickly and easily.
- Services bushings with diameters from 1-1/4" through 1-7/8", and pin diameters from 7/8" through 1-1/8".
- Handles all popular OE and aftermarket components, including Horton pin and bushing assemblies.
- Service bushing assemblies, in many cases, without removing leaf spring hangers and spring assemblies from the vehicle.
- All accessories are included except the hydraulic hand pump and hydraulic hose which must be purchased separately.

5081
S-Cam Air Brake Spring Tool
- Eliminate makeshift, unsafe methods of unhooking and reconnecting retaining springs when replacing brake shoes on heavy-duty tractors and trailers.
- Simply hook the retaining spring loop and press down. Lever action against the axle makes the job a snap!

314548 Replacement hook kit.

5085
Hub Oil Seal Puller
- Eliminates bearing and hub damage that can occur when a punch and hammer is used to remove the seal.
- Extra long 28" handle provides leverage, unique pulling head design quickly and easily removes the seal in one piece.
- Built from the highest quality heat-treated steel.
- Removes hub seals on trailer and truck axles, including truck steering axles.

7077
Axle-Stud Cone Pliers
Now you can easily remove the tapered cone from studs used on the rear axles of medium and heavy-duty trucks. This specially designed tool gives you the leverage needed to expand the cone and remove it from the stud for axle removal.

5089
Air Brake Line Release Tools
Tools used to separate connectors on the P/S system and EGR coolers without damage. Also works on connectors on other liquid and air lines. Each tool has two sizes: 3/8" and 5/8"; 1/2" and 3/4". Similar to J-45666 & J-42971.
- Works on manual or automatic slack adjusters.

5054
Air Brake Service Kit
This kit has the tools needed to remove slack adjusters and push-rod clevis pins used in the S-cam brake systems of class 7 and 8 vehicles.
- Works on manual or automatic slack adjusters.
- Includes Nos. 5055 and 5056 slack adjuster pullers, 5057 brake clevis pin press, and a plastic storage case.

5057
Clevis Pin Press
Removing corroded clevis pins from a brake air-chamber push rod can be a maddening and time-consuming task—unless you’re using our clevis pin press. This handy screw-operated tool applies the force just where it’s needed. The pin is easily removed from its hole without damaging nearby components.

5056
Automatic slack adjuster puller.

5055
Manual slack adjuster puller.

5089
Air Brake Line Release Tools
BRAKE / TRANSMISSION TOOLS
HEAVY DUTY TOOLS & EQUIPMENT

7069A
Heavy-Duty Brake Spring Pliers
Save time and effort when removing and installing return springs on the brake shoes of heavy-duty vehicles. This specially designed pliers works for hydraulic wedge-type and “S” cam air brakes. Its 26-1/4” length gives you the leverage to do the job more easily, and the huge jaw opening accommodates even the widest brake shoes.

202621  Wedge-type replacement tip
204141  “S” cam replacement tip

7070A Truck transmission bearing service set
7075 Transmission output shaft end yoke remover only

5051 Bearing Puller Set
When teamed with our No. 7070A puller, this puller set will remove front and rear countershaft bearings from the main case of Eaton® Fuller® 2 Series Roadranger® transmissions.
• Includes pulling collet, sleeve, and a pair of puller legs.

5056 Countershaft Pushing Tool
Replacing rear countershaft bearing snap rings in Eaton Fuller transmissions. With this tool, you can easily move the countershaft rearward to expose the snap ring.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions (series 2, 5, 6, and 7).

4592 Truck Brake Spring Pliers
• Designed to remove and install the brake shoe return springs on medium-duty and heavy-duty drum brakes.

4592-1 Replacement tip.

205776 Bearing Puller Set
This puller set, designed for use with our No. 7070A transmission service set (sold separately), is designed to remove front countershaft and input shaft bearings on Fuller RT, RTO 610/613 twin countershaft transmissions.

5072 Lucas Rear Brake Adjusting Tool
If you’re working on a lot of medium-duty hydraulic brake systems, you need our adjusting tool. It enables you to easily adjust Lucas Girling hydraulic brake systems (popular in Ford F700, F800, and F900 series). The tool’s offset design and extra handle length get the job done quickly.
• Similar to Ford 206-D005 (D90T-2588-A)

5065 Countershaft Bearing Driver
• Eases the task of installing a main-case countershaft bearing.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

Truck Transmission Bearing Service Set
The set is designed to help you remove input shaft bearings and countershaft bearings, in both the main and auxiliary boxes of heavy-duty Fuller transmissions. It will also remove end yokes from 1600/1610–1810 series transmissions. The puller delivers 10 tons of mechanical power—essential force for working on big gearboxes.
• Works on Fuller twin-countershaft transmissions: 125, 600, 660, 900, 9500, 1100, 12500, 12600, 13000, 14600, 15600, and 8600 series, 910–913, 915, and 9513.

4592-1 Truck Brake Spring Pliers
• Designed to remove and install the brake shoe return springs on medium-duty and heavy-duty drum brakes.

7462 Hydraulic Brake Spring Tool
Here’s a tool to remove and install the return springs in Lucas Girling hydraulic brake systems. The tool’s machined tip cradles the return spring securely, and its sliding fulcrum gives you the leverage needed to do the job. A knurled handle helps prevent slipping.
• Works on 1984 to current Ford F600, F700, and F800 series having Lucas Girling hydraulic brakes.

Transmission Timing Block Sets
These sets enable one-man installation of front and rear countershaft bearings on Fuller twin-countershaft transmissions. The set positions the upper countershaft, yet lets you slide it aside to insert the main shaft. When the main shaft is in place and timing marks line up, turn the tool vertically to engage and position the countershaft to main shaft.

7070A Truck transmission bearing service set
7075 Transmission output shaft end yoke remover only

7070A Truck transmission bearing service set
7075 Transmission output shaft end yoke remover only

Transmission Timing Block Sets
These sets enable one-man installation of front and rear countershaft bearings on Fuller twin-countershaft transmissions. The set positions the upper countershaft, yet lets you slide it aside to insert the main shaft. When the main shaft is in place and timing marks line up, turn the tool vertically to engage and position the countershaft to main shaft.

202621 Wedge-type replacement tip
204141 “S” cam replacement tip

7069A Heavy-Duty Brake Spring Pliers
Save time and effort when removing and installing return springs on the brake shoes of heavy-duty vehicles. This specially designed pliers works for hydraulic wedge-type and “S” cam air brakes. Its 26-1/4” length gives you the leverage to do the job more easily, and the huge jaw opening accommodates even the widest brake shoes.

202621 Wedge-type replacement tip
204141 “S” cam replacement tip

5063 Timing Tool
• Designed to support the main-case upper countershaft during transmission assembly and timing.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

5064 Countershaft Pushing Tool
Replacing rear countershaft bearing snap rings in Eaton Fuller transmissions. With this tool, you can easily move the countershaft rearward to expose the snap ring.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions (series 2, 5, 6, and 7).

5065 Countershaft Bearing Driver
• Eases the task of installing a main-case countershaft bearing.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

5066 Bearing Driver
This tool is designed to install the bearing on 2” diameter input shafts used in Eaton® Fuller® Roadranger® transmissions.

5076 Bearing Puller Set
This puller set, designed for use with our No. 7070A transmission service set (sold separately), is designed to remove front countershaft and input shaft bearings on Fuller RT, RTO 610/613 twin countershaft transmissions.

202621 Wedge-type replacement tip
204141 “S” cam replacement tip

5072 Lucas Rear Brake Adjusting Tool
If you’re working on a lot of medium-duty hydraulic brake systems, you need our adjusting tool. It enables you to easily adjust Lucas Girling hydraulic brake systems (popular in Ford F700, F800, and F900 series). The tool’s offset design and extra handle length get the job done quickly.
• Similar to Ford 206-D005 (D90T-2588-A)

5056 Countershaft Pushing Tool
Replacing rear countershaft bearing snap rings in Eaton Fuller transmissions. With this tool, you can easily move the countershaft rearward to expose the snap ring.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions (series 2, 5, 6, and 7).

5065 Countershaft Bearing Driver
• Eases the task of installing a main-case countershaft bearing.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

5066 Bearing Driver
This tool is designed to install the bearing on 2” diameter input shafts used in Eaton® Fuller® Roadranger® transmissions.

5063 Timing Tool
• Designed to support the main-case upper countershaft during transmission assembly and timing.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

4592-1 Truck Brake Spring Pliers
• Designed to remove and install the brake shoe return springs on medium-duty and heavy-duty drum brakes.

202621 Wedge-type replacement tip
204141 “S” cam replacement tip

5076 Bearing Puller Set
This puller set, designed for use with our No. 7070A transmission service set (sold separately), is designed to remove front countershaft and input shaft bearings on Fuller RT, RTO 610/613 twin countershaft transmissions.

202621 Wedge-type replacement tip
204141 “S” cam replacement tip

5072 Lucas Rear Brake Adjusting Tool
If you’re working on a lot of medium-duty hydraulic brake systems, you need our adjusting tool. It enables you to easily adjust Lucas Girling hydraulic brake systems (popular in Ford F700, F800, and F900 series). The tool’s offset design and extra handle length get the job done quickly.
• Similar to Ford 206-D005 (D90T-2588-A)

5064 Countershaft Pushing Tool
Replacing rear countershaft bearing snap rings in Eaton Fuller transmissions. With this tool, you can easily move the countershaft rearward to expose the snap ring.
• Works on Eaton® Fuller® 2 Series Roadranger® transmissions (series 2, 5, 6, and 7).
1982M
70 mm Hex Socket
Attach this heavy-duty socket to your 3/4" drive ratchet or breaker bar, and you'll be able to easily remove the end-yoke locknut on Eaton® Fuller® 2 Series Roadranger® transmissions.

5040
Cummins® Injector Remover/ Installer
This is our best tool for removing or installing fuel injectors on Cummins L10 and N14 Celect electronically controlled engines. The large slide hammer and pin-type pulling adapter easily— and safely— handle injector jobs.
- Includes storage case.
- Two installing adapters help prevent damage to an injector’s electronic solenoid.

5042
Cummins® Injector Puller
This helpful puller will handle a variety of injectors found in Cummins engines: mechanical L-10, PDT, and PTD top-stop 855NH. Its two-jaw design firmly grips the injector while it is being removed by the slide hammer.
- Includes storage case and special adapter for pulling STC injectors.

7455
Mack Fuel Injector Nozzle Tool
Here’s a handy tool for removing or installing injector nozzles on Mack E-6 4 VH and E-9 4 VH four-valve engines. The puller threads directly into the nozzle holder, and mechanical screw power does the pulling while a cylindrical guide holds the injector steady.
- Includes gauge to ensure correct injector depth during installation.

7458
Bosch Nozzle Socket
Removes or installs injector nozzles. You use the inner socket to hold the nozzle stationary, and the outer socket to loosen or tighten the nozzle’s gland nut.
- Works on Bosch KDEL 21 mm injector nozzles used in John Deere engines.

218163
Ford Fuel Injector Puller Adapter
Designed to work with the No. 5028 slide-hammer puller, this adapter removes injectors from Ford 6.6L and 7.8L diesel engines without damage.
- Slide-hammer threads are 1/2" x 20. Threaded end for injector is 14 mm x 1.5.

5024
Injector Sleeve Set
Here are the ideal tools for removing and installing the injector sleeves of International 1995 - 2003 DT466 engines. The removing tool threads onto a slide hammer with 5/8" - 18 threads to remove sleeves quickly. The installer seats new sleeves equally fast, without damage.

Diesel Fuel Line Wrenches
Fuel line nuts are often hard to reach, but these unique 3/8" square-drive tools solve that problem. With them, you can loosen or tighten fuel lines at the fuel injector nozzle or fuel injection pump without damaging the nut.

7453A
Fuel line wrench, 2.6" long. For International DT466 and 9L diesel engines. Fits 19 mm fuel line nuts.

7460
Fuel line wrench, 2.6" long. For International 6.9L and 7.3L diesel engines. Fits 5/8" hex nut.

6080
Cummins Diesel Fuel Injector Kit
**4201 Nozzle-Tester Adapter Set**

This is our universal adapter set for testing injection nozzles on the most popular automotive, agricultural, and construction diesel engines. The set has 17 adapters that connect to our No. 4200 Nozlrater testing unit.

- Includes handy metal storage box.
- 23622 — used on 1989–95 Cummins 5.9L, 1983–94 Ford 6.9L and 7.3L.
- 23623 — used on 1996–2000 Cummins 5.9L and Navistar 6.6L and 7.8L.

<table>
<thead>
<tr>
<th>Adapter No.</th>
<th>Description</th>
<th>M.H. Truck</th>
<th>I.H. Farm</th>
<th>Construction</th>
<th>John Deere</th>
<th>Oliver &amp; Allis</th>
<th>Ward-Whalen</th>
<th>Case, Ford, Tractor, Massey, &amp; Perkins</th>
<th>White</th>
<th>Mack</th>
<th>Caterpillar Pencil Nozzles</th>
<th>Deutz</th>
<th>GM Autos</th>
<th>VW, Audi, &amp; Mercedes Autos</th>
<th>Mercedes &amp; Magirus Truck</th>
</tr>
</thead>
<tbody>
<tr>
<td>36352</td>
<td>Fuel line assembly, 9/16”–18 R.H. thd. with 24° on pipe.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23622</td>
<td>Adapter nut, 12 X 1.5 mm internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23623</td>
<td>Adapter nut, 14 X 1.5 mm internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23624</td>
<td>Adapter nut, 18 X 1.5 mm internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>201917</td>
<td>Adapter nut, 9/16”–18 internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23626</td>
<td>Adapter nut, 5/8”–18 internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>201912</td>
<td>Adapter nut, 3/4”–16 internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>201913</td>
<td>Adapter nut, 9/16”–24 internal R.H. thd. to 1/2”–20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23693</td>
<td>Straight adapter, 1/2”–20 external L.H. thd. (Ermeto 24° &amp; 90° seat) to 9/16”–18 external R.H. thd. (E201917°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23692</td>
<td>Straight adapter, 3/8”–24 external R.H. thd. to 9/16”–18 external R.H. thd. (internal Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23617</td>
<td>90° adapter, 9/16”–18 external R.H. thd. (Ermeto 24°) to 9/16”–18 internal R.H. thd. (Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23621</td>
<td>Straight adapter, 9/16”–18 external R.H. thd. (Ermeto 24°) to 1/2”–20 external L.H. thd. (60° seat).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>208370</td>
<td>Banjo adapter, 9/16”–18 external R.H. thd. (24° seat)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>201916</td>
<td>Adapter, 9/16”–18 external R.H. thd. to 9/16”–18 internal R.H. thd. ferrule.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>208369</td>
<td>90° adapter, 9/16”–18 external R.H. thd. to 9/16”–18 internal R.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>38279</td>
<td>Straight adapter, 14 X 1.5 mm external R.H. thd. (Ermeto 60°) to 9/16”–18 external R.H. thd. (internal Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>43468</td>
<td>Straight adapter, 1/2”–20 external R.H. thd. (Ermeto 24°) to 9/16”–18 external R.H. thd. (internal Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

**Additional Accessories Available (not included in 4201 Set)**

- 44026 Adapter nut, 14 X 1.5 mm external thd. to 9/16”–18 internal R.H. thread (Ermeto 24°) to Caterpillar 3100 & 3200 series pencil nozzle.
- 201920 Adapter nut, 14 X 1.5 mm external thd. to 9/16”–18 internal R.H. thread (Ermeto 24°) to Caterpillar 1100 & 3200 series pencil nozzle. Connects OTC 4200 Nozlrater to other fittings used in the industry.
**Nozzle Tester Manifold/Adapter Sets**

These adapter sets expand our No. 4200 Nozlrater to troubleshoot a wide range of diesel engine injector nozzles.

- **4202** Adapters for servicing Audi, GM, Mercedes-Benz, Nissan/Datsun, Toyota, and VW Rabbit diesel engines.
- **4203** Manifold/adapter set. Tests Caterpillar high- and low-pressure, capsule-type nozzles, and high-pressure, pencil-type nozzles on 1100 and 3200 series engines. Complete with Nos. 39870 and 206168 adapters, low-pressure gauge (up to 1,000 PSI), cap plug and mounting brackets.

No. 4202 set includes:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>36352</td>
<td>Fuel line assy., 9/16”-18 R.H. thd. with 24° on pipe.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23617</td>
<td>90° adapter, 9/16”-18 external R.H. thd. (Ermeto 24°) to 9/16”-18 internal R.H. thd. (Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23621</td>
<td>Straight adapter, 9/16”-18 external R.H. thd. (Ermeto 24°) to 1/2”-20 external L.H. thd. (60° seat).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23622</td>
<td>Adapter nut, 12 X 1.5 mm internal R.H. thd. to 1/2”-20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>201917</td>
<td>Adapter nut, 9/16”-18 internal R.H. thd. to 1/2”-20 internal L.H. thd.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>23693</td>
<td>Straight adapter, 1/2”-20 external L.H. thd. (Ermeto 24° &amp; 90° seat) to 9/16”-18 external R.H. thd. (Ermeto 24°).</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

**Nozlrater Diesel Injector Nozzle Tester**

Here is the ultimate tool for diagnosing a number of problems that affect diesel fuel injector nozzles. The Nozlrater tester enables you to check for leakage, pop-off pressure, spray pattern, and chatter. This tool will accommodate a wide range of injectors. We also offer adapters so you can troubleshoot nozzles used in popular automotive, agricultural, and construction engines. Nozlrater features a rugged, lightweight reservoir that holds 7/10 of a gallon of fuel. It is equipped with a replaceable 2-micron filter. The large, dual-scale, high-pressure gauge is protected by a guard and includes an indicator needle to record maximum pressure reached. The tester is light enough to be easily carried for field use. Or you can bench-mount it, using the holes in its base.

- Not designed for Cummins or Detroit injectors.

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall width</td>
<td>5-3/4”</td>
</tr>
<tr>
<td>Overall length (includes handle)</td>
<td>26”</td>
</tr>
<tr>
<td>Overall height</td>
<td>11-1/4”</td>
</tr>
<tr>
<td>Weight (empty)</td>
<td>15 lbs., 10 oz.</td>
</tr>
<tr>
<td>Max. pressure</td>
<td>5000 PSI (350 bar)</td>
</tr>
<tr>
<td>Max. reservoir cap.</td>
<td>692 gal. of diesel fuel (160 cu. in.)</td>
</tr>
<tr>
<td>Usable reservoir cap.</td>
<td>628 gal. of diesel fuel (145 cu. in.)</td>
</tr>
<tr>
<td>Outlet port</td>
<td>For 3/8” tube</td>
</tr>
<tr>
<td>Gauge</td>
<td>Calibrated 0–5000 PSI (350 bar) Has 3-1/2” dial face with maximum reading indicator needle.</td>
</tr>
<tr>
<td>Gauge connection</td>
<td>1/4” NPT internal</td>
</tr>
<tr>
<td>Stroke of 1/2” dia. piston</td>
<td>3/4”</td>
</tr>
<tr>
<td>Volume per full stroke</td>
<td>147 cu. in. (2.4 cc)</td>
</tr>
<tr>
<td>Intake filter</td>
<td>2 micron</td>
</tr>
</tbody>
</table>

**Calibration Fluid**

- For use in diesel injection pump testers and injector nozzle testers.
- 1 gallon

**Davco Diesel Filter Wrenches**

- Found on Caterpillar, Cummins, Detroit Diesel, International, Mack, Mercedes-Benz, Volvo and other engines.
- Durable, stainless steel construction.
- Precise, laser-cut angles.
- Opens vent cap also.
- Soft, ergonomic handle.

**Duramax Water Sensor Wrench**

- Used to remove and install the water sensor on the fuel filter.
- Works on 2001 and Newer 6.6L Duramax Diesel found in Chevrolet and GMC Trucks and Vans.
- 3/8” square drive hole.
Transfer Tankers
- Draining oil from a large displacement engine and getting it to your bulk storage container is a snap with OTC’s Transfer Tankers.
- Used oil is collected in a reservoir, and then rolls smoothly on 4” free-wheeling casters to your storage location.
- Pump moves five gallons a minute through the 8-foot transfer hose to the a 15-gallon reservoir.
- Handle is removable for easy storage.
- Screen attached to reservoir allows assembly to be stored on its side.
- Can also be used for transferring antifreeze.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tonnage</th>
<th>Pump</th>
<th>Crushing Time</th>
<th>% Oil Removed</th>
<th>Filter Size</th>
<th>Stand Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1821</td>
<td>10-ton</td>
<td>Air</td>
<td>20 Seconds</td>
<td>95%</td>
<td>Chamber: 8” x 8” x 9” H.</td>
<td>18-1/2” W x 24” D x 63-1/2” H</td>
</tr>
<tr>
<td>1877</td>
<td>25-ton</td>
<td>Air/Hyd.</td>
<td>80 Seconds</td>
<td>95%</td>
<td>6” Dia. - 12-1/2” Long</td>
<td>18-1/2” W x 30” D x 74-1/2” H</td>
</tr>
<tr>
<td>1896</td>
<td>25-ton</td>
<td>Elec./Hyd.</td>
<td>16 Seconds</td>
<td>95%</td>
<td>6” Dia. - 15-1/4” Long</td>
<td>27” W x 30” D x 78” H</td>
</tr>
</tbody>
</table>

Note: Crushing times are approximate; crushing times may vary depending on air pressure available, size of filter, type of filter, etc.

1821
10-Ton Capacity, Air-operated Automotive Oil Filter Crusher
- Crushes up to four automotive filters (3-7/8” dia. x 9” high) at one time, in approximately 20 seconds. Engineered and built for dependable operation. Covered by OTC Lifetime Warranty®.
- 100% air operation eliminates electrical connections. Generous size of crushing chamber easily accommodates the largest automotive spin-on filters.
- Includes mounting stand. No wall mounting or time consuming installation required.

1877
25-Ton Capacity Heavy-Duty Oil Filter Crusher
- Handles the big filters (up to 6” dia. and 12-1/2” long) found in trucks, construction equipment, farm implements, etc. May also be used for automotive and light truck filters. It does it all!
- Crushes filters to 1/4 of original size, removing up to 95% of filter’s oil capacity. Automatic cycle feature: load the filter, push a button, and walk away.
- Air/hydraulic pump works on standard shop air (requires 9 CFM at 100 psi). Special valving returns ram automatically at the end of each cycle. No electrical connections needed.
- Built-in floor stand (completely assembled). Whole unit requires just 5 square feet of floor space.
- Covered by OTC Lifetime Warranty®.

1896
25-Ton Capacity High-Speed Heavy-Duty/Automotive Oil Filter Crusher
- Automotive and heavy-duty filters up to 15-1/4” long and 6” diameter are crushed in approximately 8 to 16 seconds. Filters are reduced to 20% of original size, with 95% of residual oil removed.
- Automatic cycle feature lets you load the filter, push a button, and walk away.
- Powered by 2 hp electric/hydraulic pump, 230 volt, 20 amp, 60 cycle, single phase, 3,450 rpm. Has a 2-gallon reservoir.
- Built-in, heavy-duty floor stand with leveling pads is designed to accept a 30-gallon drum for oil drainage. Comes assembled. Covered by OTC Lifetime Warranty®.

1821
1877
1896
SEE PAGE 35 FOR OIL FILTER WRENCHES

Oil Filter Crusher Comparison Chart

Shipped assembled

1577
Low Profile Fluid Receiver
- Designed for receiving waste fluid during a wide range of repair jobs.
- Fluid capacity: 7.5 gallons.
- Constructed of polyethylene plastic for heavy-duty use—yet, only weighs 13 pounds.
- Low profile, only 5” high, it easily slides under passenger cars.
- Designed with four casters to provide efficient maneuverability.
- Suitable for cooling system repair jobs—can be used for antifreeze.
- Includes splash screen to prevent spillage and splashing.
- Two-year warranty.

Otctools.com
HENDRICKSON SERVICE SETS

Rear Suspension

4246
Hendrickson Rear Suspension Bushing Tool Kit
- Replace rusted and frozen heavy-duty rear suspension bushings faster and easier
- Patent pending design is suspension mounted, eliminating the need to hold the tool during operation
- Remove/install Hendrickson PRIMAAX EX, COMFORT AIR, FCCC V Ride™ Pivot and D-Pin Bushings
- Save time and effort during suspension service to get trucks back on the road faster
- Included adapters align tool with the suspension to ensure proper bushing installation and reduce the chance of misalignment and bushing damage
- Includes an OTC 4106A 25-ton high force cylinder

4247
- Adds an OTC 2510A air/hydraulic pump to make bushing service faster and easier
- Includes everything in the 4246 kit

4250
Hendrickson Adapter Kit for Front Suspensions
- Use with your 4246 or 4247 Rear Tool on select Hendrickson Front Suspensions
- Remove and install Hendrickson PACCAR Monoleaf, Navistar Monoleaf, Volvo Monoleaf suspension Pivot Bushings

Front Suspension

4274
Hendrickson Front Suspension Bushing Tool Kit
Replace rusted and frozen heavy-duty front suspension bushings faster and easier
- Patent pending design is suspension mounted, eliminating the need to hold the tool during operation
- Remove and install Hendrickson PACCAR Monoleaf, Navistar Monoleaf, Volvo Monoleaf suspension Pivot Bushings
- Save time and effort during suspension service to get trucks back on the road faster
- Included adapters align tool with the suspension to ensure proper bushing installation and reduce the chance of misalignment and bushing damage
- Includes an OTC 4106A 25-ton high force cylinder

4275
- Adds an OTC 2510A air/hydraulic pump to make bushing service faster and easier
- Includes everything in the 4274 kit

4254
Hendrickson Adapter Kit for Rear Suspensions
- Use with your 4274 or 4275 Front Tool on select Hendrickson Rear Suspensions
- Remove and install Hendrickson PRIMAAX EX, COMFORT AIR, FCCC V Ride™ Pivot and D-Pin Bushings
**4263**
**Suspension Bushing Tool**
- Suspension bushing tool used to remove and replace suspension bushings. The hydraulic cylinder and press plate assembly mounts to the suspension component or leaf spring for hands free operation and eliminates the need to hold heavy equipment. Used in conjunction with the bushing adapter sets designed to fit specific bushings and suspension components.
- 15 ton capacity

**4261**
**Hendrickson Front Suspension Bushing Tool**
- Suspension bushing tool kit used to remove and replace the leaf spring bushings on Hendrickson Airtek NXT front suspensions found on Freightliner Cascadia vehicles. The hydraulic cylinder and press plate assembly mounts to the leaf spring for hands free operation and eliminates the need to hold heavy equipment. Press plates and bushing adapters are specifically designed to fit the front leaf spring and bushing.
- 15 ton capacity

**4255**
**Hendrickson Airtek NXT Bushing Adapter Kit**
- This adapter kit is used in conjunction with the 4263 Suspension Bushing Tool to remove and replace the leaf spring bushings on Hendrickson Airtek NXT front suspensions found on Freightliner Cascadia vehicles. Plate, adapters and cups make bearing removal and installation faster and easier than other methods.
- Plate, cup and adapters specially designed to fit Airtek NXT front suspension
- Included adapters and cups allow bushing to be pressed out and new bushing to be pressed in
- Adapters aid with installation to help ensure a straight, clean installation of vital suspension bushings

**4267**
**Hendrickson Bar Pin Adapter Set**
- Adapter set is used with the beam removed from the truck, and in conjunction with OTC No. 51100 press plate and a 100-ton hydraulic shop press.
- To remove bushings, use OTC’s previously introduced No. 302030 removing adapter and No. 206457 press adapter, both of which may be ordered separately. Reinstall bushings following procedures recommended by the suspension manufacturer.

**4267**
**Hendrickson Primaax Quick Alignment Socket**
- Hendrickson – Approved tool.
- Used to adjust axle alignment on the Primaax air suspension.
- Works on Primaax models 230, 460, and 690 rear suspensions.

**4267**
**Hendrickson PRIMAAX® Quick Wrench**
- Used to torque cross tube end cap bolts and longitudinal torque rod top pad bolts.
- Reduces maintenance time by eliminating the need to remove the tires to gain access to the end cap bolt.
- Use with the following Hendrickson PRIMAAX suspensions:
  - Type A - PAX 230/460/690 and FMX 240/480 with 8-1/2" ride height
  - Type B - PAX 230/460/690 with 10" ride height.

**4265**
**Freightliner Rear Suspension Tool**
- Removes and installs single-wrapped FAS II Airliner Freightliner Rear Suspension bushings in a fraction of the time of traditional methods.
- Saves an average 45 minutes per bushing (4 per vehicle) on flat rate of 1.5 hours per bushing.
- 15 ton Capacity cylinder

**4244**
**Freightliner Rear Suspension Tool**
**4245**
**Freightliner Rear Suspension Tool**
- Includes 2510A Air/Hydraulic Pump.
**1740 Basic Tooling Set**
This is the basic tooling set for servicing center and end beam bushings. It does not include the hydraulic pump or gauge. If you are already equipped with hydraulics, you can be replacing bushings right away! (Does not include tooling for hanger tube or end plug adapter removal.)

**For 340 thru 450 Series Hendrickson Suspensions**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>44119 Receiving tube</td>
</tr>
<tr>
<td>B</td>
<td>51678 80-ton cylinder</td>
</tr>
<tr>
<td>C</td>
<td>51695 Jack cart</td>
</tr>
<tr>
<td>D</td>
<td>206457 Press adapter</td>
</tr>
<tr>
<td>E</td>
<td>206459 Clamp plate</td>
</tr>
<tr>
<td>F</td>
<td>9780 Hydraulic hose</td>
</tr>
<tr>
<td>G</td>
<td>302018 Spacer (2)</td>
</tr>
<tr>
<td>H</td>
<td>302019 Receiving adapter</td>
</tr>
<tr>
<td>J</td>
<td>302021 Receiving adapter</td>
</tr>
<tr>
<td>K</td>
<td>302023 Pulling screw</td>
</tr>
<tr>
<td>L</td>
<td>302026 Installing adapter</td>
</tr>
<tr>
<td>M</td>
<td>302027 Removing adapter</td>
</tr>
<tr>
<td>N</td>
<td>302028 Hex nut</td>
</tr>
<tr>
<td>O</td>
<td>302029 Speed nut</td>
</tr>
<tr>
<td>P</td>
<td>302030 Removing adapter</td>
</tr>
<tr>
<td>Q</td>
<td>302031 Installing adapter</td>
</tr>
<tr>
<td>R</td>
<td>302032 Removing adapter</td>
</tr>
<tr>
<td>S</td>
<td>302401 Spacer ring (3)</td>
</tr>
<tr>
<td>T</td>
<td>42052 Inst. adapter clamp</td>
</tr>
</tbody>
</table>

**1741 Basic Tooling Set with hydraulics (Hydraulic pump 4062)**
The method Hendrickson recommends for suspension service. You get the No. 1740 basic set, plus OTC’s No. 4062 two-stage electric/hydraulic pump with remote hand switch, a No. 9653 pressure gauge, hose half coupler, and 80-ton single-acting ram. (Tooling for hanger tube or end plug adapter removal not included.)

**1746 R400 Center Bushing Adapter Set**
For R400 series Hendrickson suspensions having center bushing No. 49400 or field service center bushing No. 49600. Used with OTC’s No. 1740 suspension tool set, these adapters let you remove and install the new style R400 center bushings on Hendrickson suspensions.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>207025 Spacers (3)</td>
</tr>
<tr>
<td>B</td>
<td>302592 Screw (7/8”–14)</td>
</tr>
<tr>
<td>C</td>
<td>302593 Screw (15/16”–12)</td>
</tr>
<tr>
<td>D</td>
<td>207027 Screw</td>
</tr>
<tr>
<td>E</td>
<td>207026 Plug gauge</td>
</tr>
<tr>
<td>F</td>
<td>207030 Hand tap (7/8”–14)</td>
</tr>
<tr>
<td>G</td>
<td>207031 Hand tap (15/16”–12)</td>
</tr>
<tr>
<td>H</td>
<td>207039 Nut assembly</td>
</tr>
<tr>
<td>I</td>
<td>302595 Receiving cup</td>
</tr>
</tbody>
</table>

**1745 End Bushing Adapter Puller Set**
Set contains everything needed to remove end bushing adapter plugs in 380 thru 440 series suspensions. The plugs have to be removed prior to end bushing replacement. The set is complete in a handy plastic case. For use with 1740 series tooling sets (order separately).
BUSHING SERVICE
HEAVY DUTY TOOLS & EQUIPMENT

1749
**Hendrickson Suspension Bar Pin End Bushing Adapter Set**
Extend your No. 1741 and No. 1742 bushing service equipment sets. You can now remove and install worn end bushings on the Hendrickson new style bar pin end bushings without removing the equalizing beam from the vehicle. The No. 1749 works in conjunction with OTC’s No. 1741 and No. 1742 80-ton portable service equipment to do the job quickly, using procedures recommended by the manufacturer.

1744
**Bronze Center Bushing Service Set**
Designed for replacing bronze center bushings on 340, 380, 440, and 460 Hendrickson suspensions. Also installs bronze center bushing grease seals. For use with 1740 series tooling set (order separately).

For 340, 380, 440, & 460 series suspensions.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 28536</td>
<td>Installing adapter</td>
</tr>
<tr>
<td>B 28538</td>
<td>Installing adapter</td>
</tr>
<tr>
<td>C 302024</td>
<td>Removing/installing adapter</td>
</tr>
<tr>
<td>D 302025</td>
<td>Removing/installing adapter</td>
</tr>
</tbody>
</table>

1763
**Center and End Bushing Service Set**
This set is required for bushing service on 500 and 700 series heavy-duty suspensions. It is intended for use with a 100-ton capacity shop press. It allows replacement of center and end bushings.

For 500 & 700 series suspensions. Use with a shop press.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 208350</td>
<td>Adapter</td>
</tr>
<tr>
<td>B 208349</td>
<td>Adapter clamp</td>
</tr>
<tr>
<td>C 28541</td>
<td>Adapter</td>
</tr>
</tbody>
</table>

1764
**Center and End Bushing Tool Set**
This set is the answer for replacing center and end bushings on Hendrickson 340 and 380/440 series suspensions. The 1764 is for use with a 100-ton or larger hydraulic press. The press plate sits on the press bolster to provide a level, cradle-like surface for the beam to rest on during pressing.

For 340 and 380/440 series suspensions. Use with a shop press.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 51100</td>
<td>Press plate</td>
</tr>
<tr>
<td>B 302032</td>
<td>Removing adapter</td>
</tr>
<tr>
<td>C 302031</td>
<td>Installing adapter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D 302030</td>
<td>Removing adapter</td>
</tr>
<tr>
<td>E 42052</td>
<td>Inst. adapter clamp</td>
</tr>
<tr>
<td>F 206459</td>
<td>Clamp plate</td>
</tr>
</tbody>
</table>

1748
**End Bushing Adapter Puller Set for Hendrickson Truck Suspensions**
This set contains everything needed to remove end bushing adapter plugs used on 400 series and the larger 460–520 series suspensions. The plugs have to be removed prior to end bushing replacement. The set is complete in a handy plastic case. For use with 1740 series tooling sets (order separately).

For servicing the 400 and larger 460–520 series suspensions.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 207025</td>
<td>Spacers (3)</td>
</tr>
<tr>
<td>B 302592</td>
<td>Screw (7/8”–14)</td>
</tr>
<tr>
<td>C 302593</td>
<td>Screw (15/16”–12)</td>
</tr>
<tr>
<td>D 207027</td>
<td>Screw</td>
</tr>
<tr>
<td>E 207026</td>
<td>Plug gauge</td>
</tr>
<tr>
<td>F 207030</td>
<td>Hand tap (7/8”–14)</td>
</tr>
<tr>
<td>G 207031</td>
<td>Hand tap (15/16”–12)</td>
</tr>
<tr>
<td>H 207039</td>
<td>Nut assembly</td>
</tr>
<tr>
<td>I 302595</td>
<td>Receiving cup</td>
</tr>
<tr>
<td>J *221378</td>
<td>Hand tap (M30 x 2)</td>
</tr>
<tr>
<td>K *313342</td>
<td>Screw (M30 x 2)</td>
</tr>
</tbody>
</table>

*For use on 460–520 series adapter plugs (can be purchased separately and used with set No. 1745).
5130
1,000 lb. Capacity DriveMaster™ Driveline Lift
• Low profile of 7” and a Lift range: 7” to 30”.
• Pivoting pump handle +/- 15° tilt in each direction
• Includes 553516 Differential Adapter
• ANSI/PALD
Specifications:
Overall Length – 43”
Overall Width – 30-1/4”
Max. Height – 30”
Min. Height – 7”

553516

5019A
2,200 lb. Capacity Low-Lift Transmission Jack
• Special mounting adapter fits popular Eaton® Fuller® RoadRanger® transmissions used on nearly all Class 7 and 8 heavy-duty trucks. Mounting plate angle is adjusted with the turn of a wrench.
• Swiveling pump handle permits ease of operation in restricted working spaces.
• Forward tilt – 15°
• Backward tilt – 20°
Specifications:
Min. height is 8-1/4”
Max. height is 36-1/2”
Side tilt (either side) – 12°
Overall length – 52”
Forward tilt – 24”
Backward tilt – 18”

501
HD Spindle Adapter
This low-lift transmission jack adapter holds the spindle assembly firmly in place during king pin service. It eliminates the need to completely disassemble the brakes to reduce spindle weight for handling. During service, the spindle assembly can be raised to a comfortable working height while replacing king pin bearings or bushings. Our patented design will work with standard HD truck bolt patterns and wheel stud sizes and adapts to most low-lift transmission jacks.

5078
Air-Assisted 2,000 lb. Capacity High-Lift Transmission Jack... for Trucks & Buses
• Foot-operated air pump enables the operator to effortlessly raise the transmission into place.
• Rugged, heavy wall tubing and oversized base for stability.
• A dedicated adapter for Allison 500- and 600-series automatic transmissions is included.
• Covered by OTC Lifetime Warranty®.
Specifications:
Min. height is 41-1/2”
Max. height is 65”
Forward tilt – 50°
Side tilt (either side) – 12°
Overall length – 43-1/2”
Overall width – 26”
Leg width – 46”

5091B
10-Ton Combination
Air Lift & Support Stand
• 40” removable handle and 8’ air hose.
• Covered by OTC Lifetime Warranty®.
Specifications:
Capacity – 10 tons
(at 200 PSI air)
Minimum height (unpinned, no extension) – 18-3/4”
Maximum height (pinned in top hole, with extension) – 50-1/2”
Stroke – 10-7/8”

5091

5001
5091

Accessories for 5019A / 5078 / 1522A Transmission Jacks and 5130 Driveline Lift
558382
Auxiliary box adapter. Used with all.
561949
Light duty transmission adapters. Used with all.
528150
Eaton® “Lightning” adapter. Used with the No. 5019A transmission jack.
543284
Roadranger transmission Model series FRO-11210C to FRO-1821OC that is equipped with an internal cooler. Used with the No. 5019A transmission jack.
49611
Eaton® Fuller® RoadRanger® auxiliary housing adapter. Bolts directly to the countershaft bearing caps to provide a stable platform for removing and installing the auxiliary housing.
553516
Differential Mounting Adapter. Mounts easily using existing bolt patterns. Fits the most common differentials currently in use on Category 7 and 8 Heavy Duty Trucks. Including: Eaton, Fuller, Rockwell, Mentor, Spicer, International, and Mack. For use on OTC (5019A – 553516 requires 561948 adapter) 5078 and Stinger 1522A Transmission Jacks.
314729
Allison 500/600 series automatic transmission adapter used with No. 5078 transmission jack.
540231
Eaton® Fuller® RoadRanger® transmission adapter
540232
Mack transmission mounting brackets. Provides a stable platform for Mack T200 series transmissions.

179
CLUTCH / AIR LIFTS / POWER TRAIN LIFTS
HEAVY DUTY TOOLS & EQUIPMENT

Lift Pad Adapters

Power Train Lifts

Air Lift

Lifting Systems

Truck Clutch & Flywheel Handler

5018A
Truck Clutch & Flywheel Handler

- Replaces 14" & 15-1/2" clutch assemblies weighing up to 250 lbs.
- 13" low point enables access below side fairing.
- Linkage raises load from horizontal to vertical position.
- 360 degree swivel head.
- Includes a 2" spline shaft with a 1-1/4" pilot to aid alignment.
- Covered by OTC Lifetime Warranty®.

516160
Optional flywheel handling attachment

515688
Optional splined shaft, 1-3/4" dia. with 1-1/4" pilot

516159
Optional splined shaft, 1-3/4" dia. with 1" pilot

1520
10-Ton Capacity
Lifting System (Includes two lifts)

- Mobile, tandem system is air-operated. This will handle your class 7 and 8 tractor lifting needs. No need to waste time re-blocking and making additional lifts for the clearance you need for under-vehicle service. Roll the system to the vehicle anywhere in the shop or outside on a level surface.
- Unique design provides lift from the tires, not the frame or axle members. Ideal for situations where limited ground clearance or a lack of clear access complicates lifting.
- Single controller operates both sides of the system for a smooth, level lift up to two full feet from the bottom of the tires to the ground. Units can double as support stands when retention pin is inserted.
- Covered by OTC Lifetime Warranty®.

Specifications:
- Capacity – 10 tons
- Lifting range – 0"-24"
- Air pressure – 150 psi
- Footprint 31" wide x 50" long.

515688
Optional flywheel handling attachment

516159
Optional splined shaft, 1-3/4" dia. with 1" pilot

1590
10-Ton Air Lift

- Adjustable lifting saddles and an extra-wide stance for extra stability.
- Automatic mechanical safety catch engages in five height positions.
- Two large swivel casters and pneumatic tires make it easy to maneuver, even on loose gravel.
- Covered by OTC Lifetime Warranty®.

Specifications:
- Capacity – 10 tons (at 200 psi air)
- Air pressure – 100–200 psi
- Lifting range – 13"–52"
- Saddle spread – 29" – 41-3/4"
- Footprint 33" wide x 48" long.

Casters provide a 9-1/2" clearance on lower frame

180 otctools.com
Three-stage lift capacity 22.1 T, 38.5T, and 71.5 tons. Ideal for lifting loaded trailers, buses, and other Class 7 & 8 vehicles.

- Piston and cylinders are made from chromium molybdenum vanadium steel for durability and then liquid nitrided to prevent rust and seizing.
- Features a high load-approach speed.
- Air-driven cylinder with pressure control knob for maximum user safety.
- 4-position handle: horizontal, 45 degrees, vertical, or collapsed.
- 7-inch minimum height for low clearance vehicles.
- Comes complete with a 3-15/16 in. (100 mm) lifting extension.
- Complies with ASME / PALD test requirements.

1788B 22-Ton Capacity Under-Axle Jack
- Improvements include advanced seal ring material and one-piece air piston air pump
- Long 49-1/2” T-handle lets you easily position jack under vehicles with long overhangs.
- One pull of the handle activates the self-retracting 22-ton capacity ram without having to crawl underneath the vehicle.
- Jack has large rubber-tired wheels.
- Lifting range:
  - 3/4” saddle: Max. height 17-3/4”
  - 1-15/16” saddle: Max. height 18-15/16”
  - 3-7/8” saddle: Max. height 20-5/8”
- Cylinder stroke, 4-1/2”; extended screw length, 4-1/4”; PSI range, 90–145.

215009* In-line oil lubricator. Add to air line to meter precise flow of lubricant to air motor. Has 1/4” NPT fitting.
*Not included, order separately. Prevents harmful contamination caused by moisture in the air line.

5292 27.5-Ton Under Axle Jack
- Features class-leading 27.5 ton capacity
- Robust design with completely sealed piston.
- New lever design and pneumatic release valve for more precise release control.
- Power return allows lowering with no load.
- Includes two height adapters for flexibility.
- PALD compliant.
- Minimum retracted height (with saddle only): 8-1/4”.
- Maximum extended height (with screw extended and large adapter): 21-3/8”.
- Stroke: 4.9375”.
- PSI range: 90 to 175.

1540 4-Ton Capacity Fork Lift Jack
- 8,000 lb. capacity with a low starting height of 2-5/8”.
- Two-position lift pad permits handling of all lift truck configurations with flat or edged surfaces.
- Minimum low lift: 2-1/4”.
- Maximum high lift: 16-1/4”.
- Features include high-quality seals and high-strength steel construction.
- Handle stop makes for easy maneuverability.
- 30” long handle.

5214 4-Ton Capacity Fork Lift Jack
- 8,000 lb. capacity with a low starting height of 2-5/32”.
- 10,000 lb. capacity (5 tons) when lifting from cylinder saddle—ideal for agriculture and industrial applications.
- Unique shape of primary saddle allows for handling of all lift truck configurations with flat or edged surfaces.
- Features include high-quality seals, chrome-plated internal components, and high-strength steel construction.
- Secondary lifting surface feature.
- Complies with ASME-PALD.
- Lifting Height: 2-5/32 – 17-15/16”.

5093B 3-Stage Under-Axle Jack
- Three-stage lift capacity 22.1 T, 38.5T, and 71.5 tons. Ideal for lifting loaded trailers, buses, and other Class 7 & 8 vehicles.
- Piston and cylinders are made from chromium molybdenum vanadium steel for durability and then liquid nitrided to prevent rust and seizing.
- Features a high load-approach speed.
- Air-driven cylinder with pressure control knob for maximum user safety.
- 4-position handle: horizontal, 45 degrees, vertical, or collapsed.
- 7-inch minimum height for low clearance vehicles.
- Comes complete with a 3-15/16 in. (100 mm) lifting extension.
- Complies with ASME / PALD test requirements.
5-Ton and 10-Ton Service Jacks

- A built-in safety overload prevents using the jack beyond its rated capacity.
- Convenient foot pedal speeds the lifting operation. Handle lock and release control are located on top of the handle. Handle can be locked into any position from vertical to horizontal.
- Both models have a spring-loaded 40” handle.

**1505B** 5-ton service jack  
**1510B** 10-ton service jack

**20-Ton Capacity Service Jack**

- Low-profile stance and extended height add to versatility.
- Wheels and swivel casters feature internal bearings.
- Either the foot pedal or jack handle may be used for pumping action. Counter-balanced, spring-assisted handle has a three-position lock.

**1512** 20-ton service jack

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>1505B</th>
<th>1510B</th>
<th>1512</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5-ton</td>
<td>10-ton</td>
<td>20-ton</td>
</tr>
<tr>
<td>Lifting range</td>
<td>6” to 22”</td>
<td>6-1/4” to 22”</td>
<td>7-1/2” to 24”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>5-1/8”</td>
<td>6”</td>
<td>7-1/2”</td>
</tr>
<tr>
<td>Overall reach</td>
<td>47”</td>
<td>51”</td>
<td>97”</td>
</tr>
<tr>
<td>Frame height</td>
<td>7-3/4”</td>
<td>9-3/4”</td>
<td>10-1/4”</td>
</tr>
<tr>
<td>Handle length</td>
<td>43”</td>
<td>43-1/4”</td>
<td>42”</td>
</tr>
<tr>
<td>Floor space</td>
<td>14-3/4” to 56”</td>
<td>18” to 60”</td>
<td>18-1/8” to 61-3/8”</td>
</tr>
</tbody>
</table>

5-Ton and 10-Ton Air/Hydraulic Service Jacks

- Bring the versatility of air-assist operation to your shop’s lifting tasks.
- Huge front wheels mounted in bearings provide trouble-free service life. Rugged steel frame members.
- Rear swivel casters make spotting the jack easy. Spring-loaded handle may be locked in three positions, from horizontal to vertical.

**1507B** 5-ton air/hydraulic service jack  
**1511B** 10-ton air/hydraulic service jack

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>5206</th>
<th>5210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>6-ton</td>
<td>10-ton</td>
</tr>
<tr>
<td>Min. Height</td>
<td>6-11/16”</td>
<td>6-11/16”</td>
</tr>
<tr>
<td>Max. Height</td>
<td>22-13/16”</td>
<td>23-13/16”</td>
</tr>
<tr>
<td>Overall length</td>
<td>87”</td>
<td>99-1/2”</td>
</tr>
<tr>
<td>Overall width</td>
<td>16-5/8”</td>
<td>16-5/8”</td>
</tr>
<tr>
<td>Handle length</td>
<td>39-3/8”</td>
<td>39-3/8”</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>1507B</th>
<th>1511B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5 ton</td>
<td>10 ton</td>
</tr>
<tr>
<td>Air pressure</td>
<td>80–120 PSI</td>
<td>80–120 PSI</td>
</tr>
<tr>
<td>Lifting range</td>
<td>5-7/8” to 22”</td>
<td>6-3/8” to 22”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>6-5/8”</td>
<td>5-3/4”</td>
</tr>
<tr>
<td>Overall reach</td>
<td>87”</td>
<td>90”</td>
</tr>
<tr>
<td>Frame height</td>
<td>8”</td>
<td>10”</td>
</tr>
<tr>
<td>Handle length</td>
<td>40”</td>
<td>45”</td>
</tr>
</tbody>
</table>

SEE ADDITIONAL PRODUCTS IN THE EQUIPMENT SECTION OF THIS CATALOG. PAGES 204 – 207.
**6000 lb. Revolver® Diesel Engine Stand**
- 96-to-1 ratio worm and gear set rotates components 360°; handle locks in any position.
- Integral 12-ton jack raises the work to provide the swing radius needed for clearance.
- Two front wheels and two rear casters provide mobility.
- Universal adapter assembly permits use with a wide variety of mounting plates.
- Covered by OTC Lifetime Warranty®.

**1750A Revolver diesel engine stand with No. 205061 universal engine adapter assembly.**

**1750 Engine stand without universal engine adapter assembly.**

**Revolver® Engine Adapter Plates**
You can order just the plates you need for the engines you work on. The universal adapter assembly is required for mounting all plates to the stand.

### Engine Plates

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205061</td>
<td>Universal Adapter Plate Assembly. Included with 1750A engine stand. (Must be used with all plates below.)</td>
</tr>
<tr>
<td>J-29109-J</td>
<td>Adapter plate to accommodate adapters for Kent-Moore engine stand.</td>
</tr>
<tr>
<td>52871*</td>
<td>For coach 6V and 8V series 71 Detroit Diesel.</td>
</tr>
<tr>
<td>218504*</td>
<td>For Detroit series 60 in-line 6-cylinder engines.</td>
</tr>
<tr>
<td>208160*</td>
<td>Allison transmission mounting plate for transmission Nos. AT500, MT600, MT 6-speed, VH, VS, and VT30.</td>
</tr>
<tr>
<td>61373*</td>
<td>Allison transmission adapter plate for transmission series HT-750, CLBT, HT-740D, CR/DR, and HT-750CT.</td>
</tr>
<tr>
<td>61405*</td>
<td>For Cummins L10 and M11 series engines. Plate attaches to the left side of engine for complete tear down.</td>
</tr>
<tr>
<td>218098</td>
<td>For Cummins “B” series 5.9L in-line 6 cyl. engines.</td>
</tr>
<tr>
<td>218099*</td>
<td>For Cummins “C” series 8.3L in-line 6 cylinder engines.</td>
</tr>
<tr>
<td>205060*</td>
<td>For Caterpillar engines: Nos. 1673, 1674, 1693, 3306, &amp; 3406 in-line 6 cyl.; Nos. 1100, 3208, and 3408 V8.</td>
</tr>
<tr>
<td>217687*</td>
<td>For Caterpillar 3114, 3116, and 3176 in-line 6 cylinder and C12 engines.</td>
</tr>
<tr>
<td>205101*</td>
<td>For Mack engines: All 672, 673, 675, &amp; 711 series in-line 6 cyl.</td>
</tr>
<tr>
<td>206629*</td>
<td>For Mack engines: V8 1000, E6, &amp; E7 in-line 6 cyl.</td>
</tr>
<tr>
<td>528858*</td>
<td>For Mack 865, and 868.</td>
</tr>
<tr>
<td>206386*</td>
<td>For International Harvester engines: DT-466 (2004 &amp; Earlier), DT-360, DT408, 7 530 in-line 6 cylinder; DV-550, MV-404, MV-446, V304, V345, V392, 4-152, 4-196, 4-194, 9.0 liter 7 T444E V8, and Ford 6.9L, 7.3L DIT.</td>
</tr>
<tr>
<td>528856*</td>
<td>For IH300 &amp; 400 Series.</td>
</tr>
<tr>
<td>528866*</td>
<td>For International VT365.</td>
</tr>
<tr>
<td>61681*</td>
<td>For mounting Ford 6.6L/7.8L engines.</td>
</tr>
<tr>
<td>206386*</td>
<td>For Ford 7.3 engines.</td>
</tr>
<tr>
<td>528857*</td>
<td>For Volvo TD67 and TD71 engines.</td>
</tr>
<tr>
<td>528859*</td>
<td>For Volvo 400 and 500 Series.</td>
</tr>
<tr>
<td>528861*</td>
<td>For JD Powertech 4.5L &amp; 6.8L.</td>
</tr>
<tr>
<td>528863*</td>
<td>For JD 8995 V6, must be used with 528859.</td>
</tr>
<tr>
<td>205061 – Universal Adapter Plate Assembly</td>
<td></td>
</tr>
<tr>
<td>205058 Detroit</td>
<td></td>
</tr>
<tr>
<td>61373 Allison</td>
<td></td>
</tr>
<tr>
<td>61405 Cummins</td>
<td></td>
</tr>
<tr>
<td>205060 Caterpillar</td>
<td></td>
</tr>
<tr>
<td>206629 Mack</td>
<td></td>
</tr>
<tr>
<td>528853 Volvo</td>
<td></td>
</tr>
<tr>
<td>205101 Mack</td>
<td></td>
</tr>
<tr>
<td>528861 John Deere</td>
<td></td>
</tr>
<tr>
<td>528863 John Deere</td>
<td></td>
</tr>
<tr>
<td>528868 IH</td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Must be used with 205061 univ. adpt. plate assembly. Each engine mounting plate includes all the necessary hardware and an engine application chart.
1735B 2,000 lb. Capacity Heavy-Duty Motor-Rotor® Repair Stand
- Handles a wide variety of engines, transmissions, torque converters, and rear axles from trucks, tractors, and construction machinery.
- The 50:1 ratio gearbox allows full rotation of mounted unit with just a turn of the crank and locks in position. Easily maneuvered when loaded.
- To ensure engine stability in all positions, this repair stand is equipped with a positive-crank handle locking mechanism.
- Twin-post design, featuring laterally adjustable, 3 position outboard support; provides an extremely stable work-holding unit.
- Locking rear wheels anchor stand in position.
- Covered by OTC Lifetime Warranty®.

206391 6.0L and 6.4L Ford engine adapters (Works with both the OTC 1735, 1735A and 1735B.)

206392 Ford 6.7L Engine Adapter for 1735B HD Rotor Repair Stand.

3- and 6-Ton Capacity Ratcheting Jack Stands
- Jack stands feature a formed steel frame for strength and long life, and rolled base edges that resist sinking into soft ground or asphalt.
- Recessed column saddle for acceptance of vehicle panel rail (pinch weld).
- Dual purpose handle serves as carrying handle and column release.
- Investment cast rack bar for long life strength.
- Covered by OTC Lifetime Warranty®.

1735A Pair of 6-Ton Jack Stands. Height Range of 15-1/2” to 24-1/2”.

1733A Pair of 3-Ton Jack Stands. Height Range of 12-1/2” to 18-1/2”.

1778B 12-Ton Capacity Low Profile Jack Stand (One only)
- Spun steel base won’t dig or sink into asphalt or sand.
- Height range of 19” to 29-1/2”.
- Covered by OTC Lifetime Warranty®.
- Note: Recommend use in pairs.

1779B 12-Ton Capacity High Profile Jack Stand (One only)
- Spun steel base won’t dig or sink into asphalt or sand.
- Height range of 33-3/4” to 44-1/4”.
- Covered by OTC Lifetime Warranty®.
- Note: Recommend use in pairs.

Extension Tubes for 1778B and 1779B Jack Stands
543751 Extension Tube Height range of 19” to 29-1/2”
543752 Extension Tube Height range of 33-3/4” to 44-1/4”

1780 22-Ton Capacity Jack Stands
- Height range is 13-7/8” to 19-7/8”.
- Saddle size 3” x 3-3/4”.
- Pin-style (non-ratchet) three positions, 3” intervals.
- Reinforced collar to meet newest ANSI PALD test standards.
- 11” flat base prevents sinking into the surface.

1784D Pair of 12-ton jack stands. Base: 12-1/8” x 16-7/8”. Height range: 17-1/2” to 27-1/2”.

OTC Stinger 3, 4, 6 and 12-Ton Jack Stands
- Formed and welded steel base for strength; self-locking ratchet handle cannot be released under load. Durable baked enamel finish resists corrosion.
- Stands conform to ANSI PALD load rating standard; factory tested before shipment.

5372 Pair of 3-ton jack stands. Base: 8-1/4” x 7-1/2”. Height range: 12” to 17-11/16”.
1796 Pair of 4-ton jack stands. Base: 11-7/16” x 10-3/8”. Height range: 15-5/16” to 23-13/16”.
5373 Pair of 6-ton jack stands. Base: 11-9/16” x 10-3/8”. Height range: 15-5/8” to 23-11/16”.
1784D Pair of 12-ton jack stands. Base: 12-1/8” x 16-7/8”. Height range: 17-1/2” to 27-1/2”.
OTC 9300 Stinger Series Bottle Jacks

- Forged base and cylinder to ensure strength and eliminate leaks.
- Chromed pump piston and ram for additional rust resistance.
- In-line design for increased ease of use in positioning and operation.
- Includes free seal kit with each unit to extend product life.
- ANSI/PALD compliant.

### OTC 9300 Stinger Series Bottle Jacks

<table>
<thead>
<tr>
<th>Cap. (tons)</th>
<th>Stroke</th>
<th>OTC No.</th>
<th>Retracted Height min.</th>
<th>Length of Screw Extension</th>
<th>Height with Screw Extension</th>
<th>Pump Strokes to Extend Piston One Inch</th>
<th>Saddle Dia.</th>
<th>Base Size</th>
<th>Carry Handle</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4-5/8”</td>
<td>9302</td>
<td>7”</td>
<td>2-3/8”</td>
<td>14”</td>
<td>8</td>
<td>13/16”</td>
<td>4-5/16”</td>
<td>No</td>
<td>5.7 lbs.</td>
</tr>
<tr>
<td>3</td>
<td>4-1/2”</td>
<td>9303</td>
<td>7-1/2”</td>
<td>2-9/16”</td>
<td>14-9/16”</td>
<td>13</td>
<td>15/16”</td>
<td>4-9/16”</td>
<td>No</td>
<td>7 lbs.</td>
</tr>
<tr>
<td>5</td>
<td>4-13/16”</td>
<td>9305</td>
<td>7-13/16”</td>
<td>3”</td>
<td>15-5/8”</td>
<td>20</td>
<td>1-1/8”</td>
<td>5-3/16”</td>
<td>No</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>8</td>
<td>4-15/16”</td>
<td>9308</td>
<td>7-13/16”</td>
<td>3”</td>
<td>15-3/4”</td>
<td>21</td>
<td>1-3/8”</td>
<td>6” x 3-9/16”</td>
<td>No</td>
<td>13.2 lbs.</td>
</tr>
<tr>
<td>12</td>
<td>6”</td>
<td>9312</td>
<td>9-3/8”</td>
<td>3-1/4”</td>
<td>18-5/8”</td>
<td>21</td>
<td>1-3/4”</td>
<td>6-9/16” x 4-3/16”</td>
<td>Yes</td>
<td>18.9 lbs.</td>
</tr>
<tr>
<td>12</td>
<td>3-11/16”</td>
<td>9314</td>
<td>7-1/16”</td>
<td>2-7/8”</td>
<td>13-5/8”</td>
<td>21</td>
<td>1-3/4”</td>
<td>6-9/16” x 4-3/16”</td>
<td>Yes</td>
<td>16.1 lbs.</td>
</tr>
<tr>
<td>20</td>
<td>6-7/8”</td>
<td>9320</td>
<td>10-5/8”</td>
<td>2-15/16”</td>
<td>20-7/16”</td>
<td>28</td>
<td>2-1/8”</td>
<td>7” x 4-11/16”</td>
<td>Yes</td>
<td>28.6 lbs.</td>
</tr>
<tr>
<td>20</td>
<td>3-7/16”</td>
<td>9322</td>
<td>7-3/16”</td>
<td>1-11/16”</td>
<td>12-5/16”</td>
<td>25</td>
<td>2-1/8”</td>
<td>7” x 4-11/16”</td>
<td>Yes</td>
<td>22.5 lbs.</td>
</tr>
<tr>
<td>30</td>
<td>6-5/8”</td>
<td>9330</td>
<td>11”</td>
<td>N/A</td>
<td>17-5/8”</td>
<td>41</td>
<td>2-1/2”</td>
<td>7-11/16” x 6”</td>
<td>Yes</td>
<td>43.2 lbs.</td>
</tr>
<tr>
<td>50</td>
<td>7-3/16”</td>
<td>9350</td>
<td>11-3/4”</td>
<td>N/A</td>
<td>18-15/16”</td>
<td>74</td>
<td>2-1/2”</td>
<td>8-11/16” x 7”</td>
<td>Yes</td>
<td>76.5 lbs.</td>
</tr>
</tbody>
</table>

### Bottle Jacks

- Base, pressure cylinder, and oil reservoir form one internal part, which results in a stronger jack.
- Piston never contacts cylinder, so pressure will be absorbed and not damage jack if vehicle tilts.
- The No. 5213T is telescopic, allowing for very low initial height with high lifting.

5213A – 12-Ton Bottle Jack
5221A – 20-Ton Bottle Jack
5213TA – 12-Ton Telescopic Bottle Jack

### Bottle Jack Dimensions

<table>
<thead>
<tr>
<th>Jack</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>5213A</td>
<td>17-3/4”</td>
<td>8-7/8”</td>
<td>5-1/4”</td>
<td>3-1/2”</td>
<td>–</td>
</tr>
<tr>
<td>5221A</td>
<td>18-1/32”</td>
<td>9-1/4”</td>
<td>8-3/4”</td>
<td>3-5/8”</td>
<td>–</td>
</tr>
<tr>
<td>5213TA</td>
<td>22-5/16”</td>
<td>9-7/8”</td>
<td>–</td>
<td>–</td>
<td>12-7/16”</td>
</tr>
</tbody>
</table>

### Air/Hydraulic Bottle Jacks

- Operate manually or pneumatically. 100 PSI minimum air pressure required.

4313C 12-ton air-assist bottle jack; lift range 9-1/2” to 18-3/8”, stroke 6-1/8”.

4321C 20-ton air-assist bottle jack; lift range 9-7/16” to 17-11/16”, stroke 5-7/8”.

### 1734A Heavy-Duty Wheel Step

- Tire-mounted wheel step provides quick, easy access to under-hood components.
- Fits heavy-duty vehicles (Class 7/8).
- Installs in seconds; adjusts to fit 22-1/2” to 24” wheel sizes and folds for easy storage.
- 300 pound capacity.
- Non-skid platform surface.
**Wheel Service**

**Heavy Duty Tools & Equipment**

---

**5017A**

**Brake Drum Dolly**

- Remove, install, and transport truck brake drums without physically having to lift them.
- Works on 15” and 16-1/2” drums found on most Class 7 and 8 tractor and trailer brake systems.
- Heavy-gauge steel construction, ten-inch pneumatic tires, and adjustable handle.
- Covered by OTC Lifetime Warranty®.

---

**1543**

**Brake Drum Dolly**

- Removes, installs, and transports truck brake drums without physically having to lift them.
- Works on all 15” and 16-1/2” drums found on most Class 7 and 8 tractor and trailer brake systems.
- 6” height adjustment aids installation.
- Heavy-gauge steel construction, 8” tires, and 36” handle.

---

**Easy Lever Wheel Dollies**

- Gives technicians the leverage they need to easily remove or install truck tire-and-wheel assemblies.
- Heavy-duty construction capable of toting 300 pounds.
- Onboard rollers that make stud-hole alignment a snap.
- Spring-loaded kickstand for handy parking.
- Two models that, together, can accommodate tire diameters from 24 to 48 inches.
- Rugged tubular steel construction.

**5096A**

**Heavy-duty Easy Lever Wheel Dolly**

With a width of 26”, this dolly handles tire diameters of 36” to 48”.

**5095A**

**Easy Lever Wheel Dolly**

With a width of 22”, this dolly handles tire diameters of 24” to 36”.

---

**20-Ton Truck Ramps**

- Long, retractable T-handle enhances mobility.
- Non-skid rubber matting prevents slippage during use.
- Durable, heavy-duty rubber wheels.
- Capacity per pair is 20 tons
- Covered by OTC Lifetime Warranty®.

**5268** – 20-ton truck ramps handle up to 10” tread width.

**5269** – Wide 20-ton truck ramps handle up to 16” tread width

<table>
<thead>
<tr>
<th>Model</th>
<th>Frame Height</th>
<th>Frame Width</th>
<th>Frame Length</th>
<th>Wheel Diameter</th>
<th>Handle Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>5268</td>
<td>9-1/4” (23.5 cm)</td>
<td>15-1/2” (34.29 cm)</td>
<td>47” (119.38 cm)</td>
<td>5” (12.7 cm)</td>
<td>33” (83.82 cm)</td>
</tr>
<tr>
<td>5269</td>
<td>9-1/4” (23.5 cm)</td>
<td>18-1/4” (46.36 cm)</td>
<td>47” (119.38 cm)</td>
<td>5” (12.7 cm)</td>
<td>33” (83.82 cm)</td>
</tr>
</tbody>
</table>

---

**5090**

**Back Buddy™ II**

- Remove, transport, service, and install heavy truck brake drums and hub assemblies.
- Fast-motion ratcheting jack with 14” of vertical lift.
- Pneumatic rear tires.
- Tilting mechanism to achieve the exact angle necessary for precise reassembly.
- Fold-down handle for open access to the work area.
- Onboard lube tray and toolbox.
- An array of optional adapter sets capable of grabbing almost any truck hub assembly or brake drum, inboard or outboard.
- Adapter Sets (sold separately)

*513926* 10 stud inboard hub & drum assemblies – 335 mm.

*513927* 10 hole outboard drums – 3/4” thick back plates.

*513925* 5 and 6 spoke wheels.

*514644* 8 stud inboard hub & drum assemblies.

*514645* 8 hole outboard drums.

*514646* 6 stud inboard hub & drum assemblies.

*514647* 6 hole outboard drums.

*514648* Humvee/Hummer geared hubs.

---

**5105B**

**1,100 lb. Capacity High-Lift Dual Wheel Dolly**

- Effortless air-powered hydraulic lift system for a variety of applications.
- 0 to 42” lifting range.
- Six-inch lateral adjustment.
- Tilt adjustment of +15º to -8º ensures easy alignment.
- Features four swivel casters, two locking, for enhanced mobility.

---

**1770A**

**1,500 lb. Dual Wheel Dolly**

- Hydraulic jack provides almost 5’ of lift and tilts wheel assembly 4° to prevent damage to wheel seal.
- Independent lifting rack provides maximum stability; rollers won’t catch on load.
- Swivel casters for easy maneuverability.
- Floor space is 45” by 41”.
- 6’ chain holds load in place.
- Covered by OTC Lifetime Marathon Warranty®.

---

**1769A**

**1,500 lb. Dual Wheel Dolly**

- This 1,500 capacity dolly will remove, transport, and replace dual wheel and tire assemblies without strain or struggle.
- Swivel casters; 3-1/2” front and 3” rear, provide easy maneuverability.
- Floor space is 43” by 42”.
- No. 1769A hydraulic jack provides over 6-1/2” of lift and tilts wheel assembly 7° to prevent damage to wheel seal.
- Includes a 6’ support chain to hold load in place.

---

**otctools.com**

---

*186* You Tube  Facebook  Twitter
5713 Tire Bead Seater

The Tire Bead Seater is used when a tire, new or used, is mounted on a wheel and the tire bead does not touch both sides of the wheel, making inflation possible. The air trigger on this tool expels a tremendous burst of air that inflates the tire to seat it to the wheel rim. This allows the tire to be inflated to the recommended pressure through the tire valve.

• The Tire Bead Seater is equipped with unique configurations that enhance ease of use, productivity and safety for technicians looking to get the job done right every time.
• Unlike other options out there, the Tire Bead Seater’s ASME certified 13-gallon tank is designed with a nozzle and valve connected via hose assembly, giving the user more control rather than requiring them to hold the weight of the tank.
• The trigger style discharge valve allows for optimum airflow control while allowing both hands to firmly hold the nozzle/valve assembly, critical for effective and safe use.
• Unique nozzle design significantly reduces “blowback recoil” and contains discharge holes strategically placed for optimum inflation of a wide range of tire sizes and wheel diameters.
• Inline design allows for a comfortable distance from the tire and wheel while seating.
• ASME approved 2-gallon tank with inlet valve, pressure gauge, and relief pressure valve for safety.

5702 Tire Bead Seater

The 5702 OTC Tire Bead Seater provides many of the great features of its 5713 big brother, at a more economical price!

• The trigger style discharge valve allows for optimum airflow control while allowing both hands to firmly hold the tank/valve assembly, critical for effective and safe use.
• Unique nozzle design significantly reduces “blowback recoil” and contains discharge holes strategically placed for optimum inflation of a wide range of the tire sizes and wheel diameters.
• Inline design allows for a comfortable distance from the tire and wheel while seating.
• ASME approved 2-gallon tank with inlet valve, pressure gauge, and relief pressure valve for safety.

5700-DISPLAY

Hammer & Tire Service Display Rack

• Designed to display various products in the framed rack, complete with removable rear sign holder.
• Sturdy display framed with heavy 5/16” rod with heavy steel base eliminates tipping.
• Black powder coat finish for a rust free, durable finish.
• Contains 2’ x 2’ = 52 slots and 2’ x 4’ = 6 slots.
• Assembled dimensions: W 18.5”, D 19”, H 44”.

5700A Accessory Tire Bead Seater

• Provides the ability to control the blast with both hands firmly on the nozzle assembly, increasing effectiveness and safety.
• Includes all the fittings to adapt the hose to most surge tanks found on tire changers. A tank hook is also included to hang the nozzle when not in use.
• Long 6-1/2’ hose will reach all positions on the tire.

5735-Pack Tire Spoon Pack with Hang Rack

An upgraded pack of popular tire spoons features the 35° Double End Tire Spoon with Grip Grooves (5735 35G), 35° Curved/Flat Tip Curved Tire Spoon (5735-35) and 30° Curved Tire Spoon (5736-30), along with a FREE rack (5715) that can be hung on a toolbox or wall for easy organization.

5715 Tire Spoon Rack

• Designed to hold OTC Tire Spoons by the handle upset.
• Also holds tools with 3/4” or smaller diameter shafts.
• Can be hung on end of tool box or mounted to the wall via holes on 16” center.

5789-Pack Tire Service Display

Includes 23 popular tools for changing a tire.

5789ID-1032 1
5789ID-520 1
5047LP 1
5737-30 1
5736-30 1
5735-42K 1
5735-42 2
5733 1
5732 1
5731 1
5730 1
5729 1
5728 1
5724 1
5720 1
5716 1
5715 1
5789ID-1032 1
5047LP 1
5737-30 1
5736-30 1
5735-42K 1
5735-42 2
5733 1
5732 1
5731 1
5730 1
5729 1
5728 1
5724 1
5720 1
5716 1
5715 1

5739-30 1
5758 2
5047LP 1
5789ID-520 1
5789ID-1032 1
5700-DISPLAY 1

TIRE SERVICE

HEAVY DUTY TOOLS & EQUIPMENT

OTCtools.com

187
### Convex Slip Head
- Unique “Convex Slip Head” curved design allows the spoon to slide easily into the tire bead while the spoon bump limits the depth for quick-and-easy operation.

### Grip grooves
- Eliminate spoon slippage on the wheel rim while mounting or demounting the tire. The grooves also limit the depth of the spoon to help eliminate pinching tire tube applications.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>5716</td>
<td>HD Sliding Tire Spoon</td>
<td>38” extends to 52”, 3/4” diameter. Inner slide bar provides hammer action to easily insert and remove the spoon.</td>
</tr>
<tr>
<td>5716G</td>
<td>HD Sliding Tire Spoon with Grip Grooves</td>
<td>38” extends to 52”, 3/4” diameter. Inner slide bar provides hammer action to easily insert and remove the spoon.</td>
</tr>
<tr>
<td>5720</td>
<td>Sliding Dual Tire Spoon</td>
<td>35” and 3/4” diameter. Unique configuration provides mount and demount heads on either end with the aid of a slide hammer mounted mid bar, allowing for hammering either end in or out of the tire bead. Twist-lock feature locks 3.5 lb. slide weight in position.</td>
</tr>
<tr>
<td>5724</td>
<td>Extending Tire Spoon</td>
<td>22” extends to 34”, 3/4” diameter. Twist-lock feature allows the spoon to be extended to any length and locked into position with a twist of the collar.</td>
</tr>
<tr>
<td>5734-18</td>
<td>Tire Machine Spoon, Double End</td>
<td>18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.</td>
</tr>
<tr>
<td>5734-18G</td>
<td>Tire Machine Spoon, Double End with Grip Grooves</td>
<td>18” Has a curved end and a bent tip end for starting the bead on a tire changing machine.</td>
</tr>
<tr>
<td>5735-18</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>18” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-18G</td>
<td>Double End Tire Spoon with Grip Grooves</td>
<td>18” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-35</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>35” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-35G</td>
<td>Double End Tire Spoon with Grip Grooves</td>
<td>35” Double end curved tire spoon. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-42</td>
<td>Double End Curved &amp; Flat Tip Curved Tire Spoon</td>
<td>42” Same great design as the original double end mount/demount tire spoon, but in a 42” length for added leverage. 3/4” diameter.</td>
</tr>
<tr>
<td>5735-42K</td>
<td>Double End Tire Spoon with Kick Start</td>
<td>42” Includes kick loops to allow the spoon to be forced into tight bead locations with the help of foot pressure. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-18</td>
<td>Curved Tire Spoon</td>
<td>18” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-18G</td>
<td>Curved Tire Spoon with Grip Grooves</td>
<td>18” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-24</td>
<td>Curved Tire Spoon</td>
<td>24” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-24G</td>
<td>Curved Tire Spoon with Grip Grooves</td>
<td>24” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5736-30</td>
<td>Curved Tire Spoon</td>
<td>30” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5737-30</td>
<td>Flat Tip Curved Tire Spoon</td>
<td>30” Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5739-24</td>
<td>Curved Shank Tire Spoon</td>
<td>24” The curved shank allows improved access for the spoon head around the tire bead or wheel rim. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
<tr>
<td>5739-30</td>
<td>Curved Shank Tire Spoon</td>
<td>30” The curved shank allows improved access for the spoon head around the tire bead or wheel rim. Handle knob enables easier spoon pick up. 3/4” diameter.</td>
</tr>
</tbody>
</table>
Tire Service Hammers, Indestructible Handle
- Indestructible handle – never needs replacement!
- Ergonomic rubber grip handle reinforced with steel bars resists breaking while absorbing impact and vibration.
- Drop-forged head is induction-hardened for long life, and contains steel locking plates that are specially bonded to ensure the head never becomes loose.
  - Use top hook as a wheel tipper; sledge end hook to drag tire into position.
  - Bead breaking wedge has grooves and a convex shape to help drive tire lube into the bead.

5 lb. head, handle length 20”, total weight 7.3 lbs.
10 lb. head, handle length 32”, total weight 14.4 lbs.

5728 Tire Bead Breaker
- This tool will break beads in applications where other bead breakers have failed. A tire with a very weak or damaged sidewall due to a zipper rupture, or driven too far while flat, can be near impossible to break the bead with conventional bead breakers. Other applications like extremely soft sidewall tires, such as ATV tires, is where this unique bead breaker works and other do not.
- Unique head is designed to provide a large striking area for all angles, while providing the mass needed to break the tire bead.
- This design puts the force exactly where it’s required and eliminates the possibility of accidentally hitting the wheel, problems typically encountered while using larger swing hammer style bead breakers.

5789ID-1032

5789ID-520

5727 Sliding Bead Breaker
- The unique wedge design allows for consistent and accurate impact angle without adjusting the handle angle.
- The split head design provides wider tire force area while reducing drag on the wheel rim.
- Foot loops allows for extra foot pressure for bead breaking with fewer strikes.
- The head is also designed to tip tires from either side of the wheel. Includes wheel tipping slots to easily flip 250 lb. tires without hurting your back.
- Hammer shaft does not fall out of hammer body like competitive units.

5747 Lug Nut Cap Remover
- Designed to remove lug nut caps found on many heavy-duty trucks and trailers quickly and easily without damage. Caps can be easily damage by prying or using standard cap removers.
- Locking pliers design with specially coated jaws apply maximum grip on the lug nut caps without damage.

5752 Wheel Loader & Tipper
- The new ergonomic wheel loader and tipper integrates two very helpful tools into one.
- The wheel loader feature allows a technician to lift various sizes and types of wheels and tires in and out of a truck bed.
- The wheel tipper feature allows the technician to flip a wheel over during tire service, or just tip up a wheel and tire to move.
- Both of these features allow the technician to easily and safely service and lift wheels by eliminating the need to bend over to lift, dramatically reducing the risk of back injury.
- Works on steel or aluminum wheels, inflated or deflated.

5729 Outside Dual Wheel Bead Breaker
- Breaks the inner bead on the outside tire without removing the wheel from the truck.
- Unique design places pressure in the exact location required to quickly and easily break the inner bead.
- Simply pull up on the handle and the bead is forced off the wheel rim.

5750 Wheel Tipper
- This ergonomic wheel tipper allows the technician to flip a wheel over during tire service, or just tip up a wheel and tire to move.
- Allows the technician to easily and safely service wheels by eliminating the need to bend over to lift, dramatically reducing the risk of back injury.
- Works on steel or aluminum wheels, inflated or deflated.

5752 Hands Free Air Chuck
- Perfect for applications where the tire valve is facing the floor while seating the tire bead, such as most dual wheel configurations.
- Hooks on the top bead seat of the wheel and the spring pressure holds the chuck on the tire valve pointing to the opposite side.
- Ball valve included to allow inflation only when needed.
- Allows for safe tire inflation when used with a 6 to 8 inflation hose.

5745 Lug Nut Cap Remover Locking Pliers
- Designed to remove lug nut caps found on heavy duty truck and trailers quickly and easily without damage. Caps can be easily damaged by prying or using standard cap removers.
- Locking pliers design with specially coated jaws apply maximum grip on the lug nut caps without damage.

5745 Hands Free Air Chuck
- Perfect for applications where the tire valve is facing the floor while seating the tire bead, such as most dual wheel configurations.
- Hooks on the top bead seat of the wheel and the spring pressure holds the chuck on the tire valve pointing to the opposite side.
- Ball valve included to allow inflation only when needed.
- Allows for safe tire inflation when used with a 6 to 8 inflation hose.
HEAVY DUTY TOOLS
HEAVY DUTY TOOLS & EQUIPMENT

5747
Tire Valve Stem Punch Kit
• Quickly and easily remove old valve stems from a wheel with a swing of a hammer.
• Simply place the punch tip on the inside of the valve stem and strike the punch to force the old valve stem out of the wheel.
• The unique punch tip is heat treated and shaped to remove all types of valve stems, including 10mm nickel plated, steel, and brass.
• Works on 412, 413, and 418 valve stems.
• Includes hand protecting grip with interchangeable 5" and 8" punch adapters for car and truck wheel applications.

5747-2 Tire valve punch tip, 5"
5747-3 Tire valve punch tip, 8"

5731
Tire Bead Locking Pliers
• Prevents the tire from slipping while mounting the top bead.
• Quick and easy universal clamping design.
• Rugged rubber coated jaw to protect wheel finish.
• Prevents tire from contacting costly TPM Sensors.

5732
Tire Spoon Holding Pliers
• Tire Spoon Holding Pliers is the 3rd hand needed to ease mounting and demounting of tires with tire spoons.
• Quick and easy universal clamping design.
• Rugged rubber coated jaw to protect wheel finish.

5733
Tire Bead Wedge Pliers
• Tire Bead Wedge Pliers keeps the tire in the bead drop area to ease mounting and demounting of larger truck and agricultural tires.
• Quick and easy universal clamping design.
• Rugged rubber coated jaw to protect wheel finish.

5734
Accutorq™ Clikker Torque Wrenches

7378
Accutorq™ Clikker Torque Wrenches

These precision torque wrenches make a loud click when you’ve reached the torque setting. They feature ratcheting heads, all-metal construction, permanently roll-marked scales, and soft-grip rubber handles that enable you to firmly grasp the wrench for right- or left-hand torquing.
• Includes molded plastic case.
• One-year warranty.

<table>
<thead>
<tr>
<th>Tool No.</th>
<th>Torque Range</th>
<th>Graduations</th>
<th>Square Drive</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7378</td>
<td>50–250 in. lbs. (68–339 N•m)</td>
<td>2 ft. lbs.</td>
<td>1/2&quot;</td>
<td>19-3/8&quot;</td>
</tr>
<tr>
<td>7379</td>
<td>100–600 in. lbs. (136–813 N•m)</td>
<td>10 ft. lbs.</td>
<td>3/4&quot;</td>
<td>42-1/4&quot;</td>
</tr>
</tbody>
</table>

57367
Torque Multiplier, 1100 lb-ft
• Drive Input; 1/2”, 365 lb-ft Max
• Drive Output; 3/4”, 1100 lb-ft Max
• Head Width; 2.9”, 3.3:1 Ratio
• Reaction Bar; 13–3/4”
• Includes reaction foot.
• Note: frictional gear loss = 6%

57368
Torque Multiplier, 2200 lb-ft
• Drive Input; 3/4”, 730 lb-ft Max
• Drive Output; 1”, 2200 lb-ft Max
• Head Width; 3.6”, 3.3:1 Ratio
• Reaction Bar; 15-5/8”
• Includes reaction foot.
• Note: frictional gear loss = 6 %

5082
Wheel Tipper
This heavy-duty wheel tipper makes handling those hard- to-manage truck tires easy. To use the wheel tipper, simply deflate the tire and break the bead, then hook the wheel tipper to the rim of the wheel. The wheel tipper makes an otherwise tough task effortless.
• Designed for both aluminum and steel wheels won’t damage wheel rim.
2,200 and 4,400 lb. Capacity Heavy-Duty Floor Cranes

- To conserve valuable floor space, crane folds into a compact package for storage.
- For "close-in" work, leg spread adjusts to clear vehicle's wheels, telescoping boom extension gives additional reach. Roller bearing mounted wheels and steering dolly provide ease of mobility.
- A two-speed hydraulic hand pump provides fast boom travel; descent of boom is under precise control of operator.
- Covered by OTC Lifetime Warranty®

1819 2,200 lb. Capacity Crane. Has hydraulic hand pump and 16-7/8" lifting chain.
39610 1/4" steel chain grade 43, 18-3/8" long, 2,200 lb. capacity. Has safety hook on end. Use with 1819.

39611 5/16" steel chain grade 70, 19-3/4" long, 4,400 lb. capacity. Has safety hook on end. Use with 1820.

6,000 lb. Capacity Heavy-Duty Mobile Floor Cranes

- Three boom positions give capacities of 4,000, 5,000, and 6,000 lbs. to handle the biggest engines, and often the transmission right along with the engine! Usable reach is almost 92".
- Boom swivels for vertical and lateral positioning; legs extend to straddle the biggest tires.

1814 6,000 lb. capacity crane with electric/ hydraulic pump (115V) with remote motor control.
1813 6,000 lb. capacity crane with two-speed hydraulic hand pump.
2,000 and 4,000 lb. Capacity Folding Floor Cranes
- Both of these cranes fold up for compact storage.
- Front wheels are 5-7/8”; rear casters 3-1/2”.

**2002**
- 2000 lb. capacity crane with a reach of 24” to 36”

**2004**
- 4000 lb. capacity crane with a reach of 26” to 48”

### Specifications

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity,</td>
<td>500 lbs.</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td>boom extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum capacity,</td>
<td>2,000 lbs.</td>
<td>4,000 lbs.</td>
</tr>
<tr>
<td>boom retracted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum hook height,</td>
<td>94”</td>
<td>86-1/2”</td>
</tr>
<tr>
<td>boom extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum hook height,</td>
<td>87”</td>
<td>72-3/4”</td>
</tr>
<tr>
<td>boom retracted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective boom reach,</td>
<td>15°</td>
<td>15°</td>
</tr>
<tr>
<td>boom extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective boom reach,</td>
<td>36°</td>
<td>36°</td>
</tr>
<tr>
<td>boom retracted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leg width @ front wheels</td>
<td>25”</td>
<td>25”</td>
</tr>
<tr>
<td>Leg height</td>
<td>6-1/2”</td>
<td>7-3/4”</td>
</tr>
<tr>
<td>Floor space folded</td>
<td>16” x 17-1/2”</td>
<td>33” x 33-1/2”</td>
</tr>
<tr>
<td>Floor space unfolded</td>
<td>57” x 25”</td>
<td>70” x 33-1/2”</td>
</tr>
</tbody>
</table>

### Load Leveler
- Improved design over conventional spreader bars.
- Carriage on main support beam moved by turning lead screw; this permits fine adjustment of the tilt angle of component being lifted.
- Turn lead screw manually or with air-powered tools.
- Spreader bar adjustment secured with locking bolts.
- Chain grade is 80.
- Covered by OTC Lifetime Warranty®.

**1812 Load Leveler**
- Max. lifting capacity: 6,000 lbs.; distance between hooks: min. 30”, max. 46”.

**1822 Load Leveler**
- Max. lifting capacity: 10,000 lbs.; distance between hooks: min. 36”, max. 56”.

### 4305 1,500 lb. Capacity Engine Load Leveler
- Designed to hook to a crane or hoist to handle and position large, bulky components.
- The horizontal tilt can be adjusted to compensate for off-center loads, or adjusted to a certain angle for a component being positioned.

### Heavy-Duty Adjustable Slings
- For lifting and positioning engines, transmissions, etc. Each chain can be adjusted independently for length; plate design enables chain to be “short-hooked” for correct tilt.

**205049**
- 2,000 lb. capacity sling with 1/4” chain, 56” long

**205050**
- 4,000 lb. capacity sling with 5/16” chain, 65” long

**38841**
- Plate only, use with any 1/4” or 5/16” alloy steel chain

### 4305 1,500 lb. Capacity Engine Load Leveler
- Engine, transmission, or other component is tilted or leveled by turning sling’s 5/8” hex drive end with a common speed handle and socket.
- Has 65-3/4” long chain (5/16”) and hook assembly with forged hook on each end. Pair of special lifting brackets included.
- Makes engine removal and installation a snap, even in close quarters.
- For use with floor cranes only; not to be used with overhead hoists or lifts.

### Load-Rotor® Positioning Sling
- Use with a floor crane. Engine, transmission, or other component is tilted or leveled by turning sling’s 5/8” hex drive end with a common speed handle and socket.
- Has 65-3/4” long chain (5/16”) and hook assembly with forged hook on each end. Pair of special lifting brackets included.
- Makes engine removal and installation a snap, even in close quarters.
- For use with floor cranes only; not to be used with overhead hoists or lifts.

### Alloy Chains for Overhead Lifts and Hoists
- 302941 5/16” alloy chain, 26-13/16” long, 4,000 lb. capacity. With safety hook on one end.

### 7100 4,000 lb. Capacity Lifting Brackets (pair)
- Attach directly to component for easy lifting, will take 1/2” diameter bolts.
Universal Outside Thread Chaser

Damaged bolt or nut threads can be an annoying, costly problem—unless you have one of our thread chasers. It will quickly restore threads to near original condition without the use of expensive thread-cutting equipment.

- Replaceable V-pads and dies.
- 1-1/4” to 5” O.D.

7402  Thread chaser with 6 dies: threads per inch - 4, 5, 6, 7-1/2, 8, 9, 10, 11, 11-1/2, 12, 14, 16, 18, 20, and 24.

21684  Standard die set. Includes 6 dies, in the sizes listed above.

202817  Metric die set. Includes three dies: 1 mm- 1.25 mm-1.5 mm-1.75 mm, 2 mm-2.5 mm-3.0 mm-3.5 mm; 4 mm pitch dies.

206803  V-pad.

6492  Engine Preluber Kit

- Ensures oil is present to internal engine components on the first start of a new or rebuilt engine, or after major engine work is performed.
- Required to prime the oil pump and fill the oil galleries and internal engine components with clean, new oil.
- Connects to engine oil system at the oil pressure sensor on a variety of domestic and import engines.
- Oil pressure sensor adapters included.

4085  1-ton Capacity Hydraulic Spreader

This hydraulic spreader is rated at a full 1-ton capacity at 10,000 PSI and that’s enough for a wide variety of jobs. Working in tight spots is no problem—it needs only a 9/16” clearance to engage the jaws. With a big 4” spread, it’s ready for a variety of applications: straightening work, removing dents and creases from sheet metal, or as a clamp. The device’s spring-return jaws are made of high-strength alloy steel. It can be dead-ended at 4” spread under full load. Ideally suited to work with No. 4012 hand pump (not included).

8203L  3-piece Long Handled Pry Bar Set

A set of 3 made-in-the-USA pry bars with comfortable, sturdy rubberized grips. Each bar is drop-forged in Minnesota with a hand-ground chisel end for wedging into tight spaces. Special tempered steel provides extra strength, durability and leverage for tough jobs. A dedicated striking cap provides a big target to drive the pry bar in to help separate components faster. Includes lifetime warranty.

- 24” handled pry bar
- 36” handled pry bar
- 48” handled pry bar

4020  Air/Hydraulic Pump

- Ideal all-around power source develops 10,000 PSI at 100 PSI air.
- Two-stage release mechanism; internal relief valve.
- 98 cu. inches of usable oil.
- Covered by OTC Lifetime Warranty.

8203S  3-Piece Short Handled Pry Bar Set

A 3-piece Handled Pry Bar Set that includes 8”, 12” and 18” lengths for moving or separating components with maximum leverage. Each bar is made from tempered square steel for durability and strength. The dual durometer handle provides a comfortable and secure grip, reducing hand fatigue. A black chrome striking cap will take hammer blows without handle damage, and a polished tip and black oxide finish resists rust and wear during use. Covered by OTC’s Lifetime Warranty.

- 8” handled pry bar
- 12” handled pry bar
- 18” handled pry bar
Collision Repair Sets, Stinger Series 4- and 10-Ton
- Very competitively priced, yet high quality sets include single-speed hydraulic hand pump, hose, and ram.
- Components snap together for quick setups to apply pushing, spreading.
- Components include: hydraulic pump, hose, and ram; ram flat base; extension tubes (4); 1/2-ton spreader; tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

1513B 4-ton collision repair set. Has single speed hydraulic hand pump and ram with 4” stroke.
1515B 10-ton collision repair set. Has single speed hydraulic hand pump and ram with 6” stroke.

Collision Repair Sets, OTC Series 4- and 10-Ton
- We’ve matched our OTC hydraulics with versatile tooling.
- Components snap together, permitting you to apply pushing, spreading.
- Components include: hydraulic pump, hose, and ram; ram flat base; 1/2-ton hydraulic spreader; extension tubes (4); tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

1517B 4-ton collision repair set. Has single speed hydraulic hand pump (4000A) and ram (4082B) with 5” stroke.
1519B 10-ton collision repair set. Has two-speed hydraulic hand pump (4012A) and ram (4083C) with 6-1/8” stroke.
222618 6 ft. hose 1/4” NPT.

5086 Collision Repair Set, 10-Ton
- Exert hydraulic force just where it’s needed to lift, spread, bend, or straighten. Handles the high-force jobs you face daily in trailer maintenance or other applications.
- Includes reliable components including 10-ton, 10-1/8" stroke hydraulic ram; air/hydraulic pumping unit; hydraulic hose; four snap-together extension tubes; extension tube coupling; serrated saddle; flat base; 90° wedge head; flex head; storage case.
- All set components are covered by OTC Lifetime Marathon Warranty®.
4342
DEF Electric Pump Tote Kit with Dispenser Coupler
The Electric DEF Pump Tote Kit quickly transfers fluid from DEF totes to barrels. The kit includes everything needed to pump DEF into barrels for easier transport and refilling of vehicle systems. It includes the OTC 4338 Electric Pump, a manual nozzle, hoses and brackets to mount to a standard DEF tote. Additionally, it includes the OTC 4333 Dispenser Coupler to keep moisture out of the container, maintaining high levels of DEF concentration and fluid effectiveness. (Drum and tote not included.)

4341
DEF Electric Pump Tote Kit
Same as the 4342 does not included 4333 Dispenser Coupler.

4344
DEF Electric Pump Drum Kit with Dispenser Coupler
The Electric DEF Pump Drum Kit quickly transfers fluid from DEF totes to barrels. The kit includes everything needed to pump DEF into barrels for easier transport and refilling of vehicle systems. It includes the OTC 4338 Electric Pump, a manual nozzle, hoses and brackets to mount to a standard DEF tote. Additionally, it includes the OTC 4333 Dispenser Coupler to keep moisture out of the container, maintaining high levels of DEF concentration and fluid effectiveness. (Drum and tote not included.)

4343
DEF Electric Pump Drum Kit
Same as the 4344 does not included 4333 Dispenser Coupler.

4339
Air Operated DEF Pump
OTC’s Air Operated DEF Transfer Pump uses compressed air to pump and quickly move DEF and other fluids. It is designed to be mounted to drums from 15 to 55 gallons using its built-in 2” bung adapter. A versatile and industrial design enables the pump to also move engine oil and antifreeze without damage.

4337
Rechargeable Electric Pump
This Rechargeable DEF Transfer Pump makes dispensing diesel exhaust fluid easy in remote locations. A flow rate of 6 gallons per minute with a charge that lasts 15 minutes can transfer up to 90 gallons on a single charge. It is lightweight and easy to use with drums or totes with a telescoping inlet tube and flexible hose. Included with the pump is a one-hour quick charger, a lithium-ion battery and a manual nozzle.

4336
Hand Operated DEF Pump
The lever-action barrel-style hand pump pulls DEF from 15 to 55-gallon drums with a 2” opening without any electricity or compressed air. The hand-operated pump is ideal for low-volume DEF transfer in the field or the shop. A lightweight and durable design features a long telescoping inlet tube and flexible outlet hose. The multi-purpose design can also be used with engine oil, antifreeze, and windshield washer fluid.

4335
Auto Shut-Off DEF Nozzle
A dual-mode automatic DEF control nozzle that can be held open manually or locked to control flow of fluids. It will automatically shut off once the DEF level in the tank reaches the outlet discharge spout to avoid spilling or overfilling. It has a heavy duty stainless steel cast body with a polyamide cover for durability and protection. It can also be used with other water-based fluids and E85.

4333
DEF Dispenser Coupler
The reusable DEF Dispenser Coupler helps maintain diesel exhaust fluid concentration and purity by preventing contamination. It connects and disconnects easily from compatible containers including 55-gallon drums and DEF totes. Viton seals nearly eliminate leaks and stainless steel construction provides extra durability and reliability.

4334
Digital Turbine DEF Flow Meter
OTC’s DEF Digital Turbine Flow Meter accurately measures fluid volume transferred for DEF, windshield washer fluid and other water-based fluids, even in severe weather conditions. It is designed for measurement in-line or end-of line when used with a dispensing nozzle. The digital display shows fluid transferred in quarts, pints and gallons and uses two AAA 1.5 volt batteries. Polyamide construction ensures a strong and protective housing for durability and a long work-life.

4340
Air Operated Double Diaphragm DEF Pump
The Air Operated Double Diaphragm DEF Pump makes quick work of large-volume DEF transfer. It easily installs on most containers or free-floating in fluid. A versatile design can transfer contaminated liquids when cleaning out pits and, when properly installed, is capable of submerged operation. It can also pump antifreeze, ethanol and waste water.
Portable Diesel Particulate Filter Cleaner

The Diesel Particulate Filter (DPF) Cleaner was designed with shop service in mind. Its portability allows the unit to be placed as close to the vehicle as possible and to be stored wherever needed in the service facility. The advent of the 2010 Tier 4 cleaning requirements created the need for a lighter, more portable cleaning system which can be taken into the field to clean filters at the point of service.

Diesel Particulate Filter features

- Lightweight and Highly Portable - ideal cleaning system for use in the shop or on a service truck.
- Flexibility - clean DPF’s from 6” to 15.5” in diameter using shop or compressed air of at least 100 PSI and 20 CFM sustained airflow.
- Fully Automated Operation – once started, the cleaning process can be completed with minimal operator oversight, freeing up the technician to simultaneously do other work in the shop.
- Focused Air Jet Technology™ - concentrates a precise high pressure stream of air directly into every cell.
- Easy Maintenance - contains no internal filters that require user maintenance.
- Rugged design provides maximum durability.
- Operates on 12-24 volt DC, or 110-220 Volt AC.

Efficiency by the Numbers*

- Cleans up to 20% more efficiently than traditional pulse based systems.
- Cleans up to 5% more efficiently than other more expensive "air knife" systems.

*Based on third party OE test data using Pin-gauge measurement.

Unique floating puck prevents "splash back"

- Features Focused Air Jet Technology™ with a unique floating puck that prevents splash back.
- Includes three nozzles: two straight (short and long), for standard “open face” DPFs; and one curved for the angled-flange DPFs.
- Ensures quiet operation.

Ash disposal System and Shield

- Innovative ash disposal system enables technician to quickly and easily remove and dispose of particulate matter in accordance with local environmental requirements.

5286 kit includes:

- Cleaning unit
- Three neoprene rings fit filters from 6 in. (165 mm) to 15.5 in. (400 mm) in diameter
- Wet / dry HEPA vacuum
- Short, long, and curved-flange filter nozzles
- Adjustment feet for standard and flanged filters
- Ash disposal kits
- AC and DC adapter cables

Accessories

563197 (Set of 5) – Ash disposal system enables technician to quickly and easily remove and dispose of particulate matter in accordance with local environmental requirements.
5280
OTC 5280 Diesel Particulate Filter Cleaner

The Diesel Particulate Filter (DPF) Cleaner was designed with shop service in mind. The cleaning process allows the DPF to be cleaned as part of a general maintenance schedule at the service location with minimal time away from the vehicle. Its portability allows the unit to be placed as close to the vehicle as possible and to be stored wherever needed in the service facility.

DPF Cleaner Features

- OE tested and Dealer recommended – By many major diesel engine manufacturers. Robust design – For long shop life. Can be used as part of a preventative maintenance program.
- High Pressure cleaning process for thorough cleaning of ash from DPF – produces 10 times the burst energy of competitive low pressure units.
- Initial Burst Quick check – To identify filters too plugged for proper cleaning.
- Movable with locking wheels – For placement throughout the shop.
- Computer Controlled Process Based on OE Requirements – for “Start to End” cleaning without constant technician monitoring.
- Containment of hazardous ash – For easy disposal.
- HEPA Filter Air Exhaust System – To exceed environmental air standards for shop.
- Operates on standard 115V outlet.
- Proven to clean to over 92% efficiency. (3)

(3) Third-party OEM test results using pin gauge measurement with approved OTC adapters and burst cycles. Actual results may vary.

Includes the following items:

- 535936 Small Cone
- 543887 Medium Cone
- 543885 Large Cone
- 553913 CAT Adapters
- 553915 Cummins Adapters

Seal Repair Kits

- 557281 Cone seal repair kit
- 557282 CAT adapter seal repair kit
- 557283 CUMMINS adapter seal repair kit
- 557510 VOLVO adapter seal repair kit
- 557511 ISUZU adapter seal repair kit
- 557553 UD TRUCK/HIND seal repair kit
- 557554 DETROIT DIESEL adapter seal repair kit

Replacement Filters:

- 558569 12” HEPA Filter
- 558570 Vacumm Replacement Filter
- 558571 30” Air Filter Cartridge
- 558572 Replacement Desiccant
- 558573 Replacement Element Filter

Upgrade kits for other OEM’s are sold separately:

- 556889 Detroit Diesel Upgrade Kit
- 553990 UD TRUCK (with Hino Engine) Upgrade Kit
- 553991 Isuzu Upgrade Kit
- 553993 Volvo/Mack Upgrade Kit
- 558181 Navistar Upgrade Kit Requires use of 5281 DPF Thermal Processing Unit.
- 554654 Includes all upgrade kits shown above
EPA regulations require all diesel engines manufactured on or after January 1, 2010 to meet lowered NOx emissions standards.

- Most heavy duty engines (Class 7-8 trucks) manufacturers, have chosen to utilize SCR. This includes Detroit Diesel (DD13, DD15, and DD16 models), Cummins (ISX line), PACCAR, and Volvo/Mack.
- SCR-equipped engines require the periodic addition of Diesel Exhaust Fluid (DEF, a urea solution) to enable the process. DEF is available in a bottle from most truck stops, and some have installed bulk DEF dispensers near the Diesel Fuel pumps. However, to ensure the proper operation of the SCR system, operators must ensure the DEF in their vehicle consists of a 32.5% Urea / Water solution.
- The OTC 5285 makes this a simple and quick process for an operator or technician.

**Application:**
The refractometer is a portable, precision, optical instrument used for measuring the Diesel Exhaust Fluid (DEF) concentration. When a liquid sample is placed on the prism, the light passing through it is bent. The more concentrated the liquid, the more the light will bend. The refractometer contains a reticle, or scale, that is enlarged through the eyepiece to measure this light. The values on the scale have been established to evaluate the DEF condition.

**Scale:**
- 0.5% line graduations
- 32.5% Indicated
- Scale 15-40%
- Waterline & 20 Deg C

**0525 OTC DEF Refractometer**
Kit includes: Refractometer, dropper, lens wipe cloth, instructions and quick guide, screwdriver and case.

---

**5281 OTC DPF Thermal Processing Unit**
The 5281 DPF Thermal Processing Unit is a device which will thermally regenerate a DPF unit at a controlled, pre-programmed rate. Sometimes, the DPF cannot be regenerated on the truck due to a failure with the vehicle's own regeneration system, or in the case of retrofit applications, a lack of an on-vehicle regeneration system. Thermal regeneration of DPFs is used in conjunction with the OTC 5286 DPF Cleaner. Designed to facilitate the cleaning of dirty filters — especially those with high amounts of wet soot, and unburned hydrocarbons.

- Pre-programmed thermal profile controls temperature ‘ramp up’ and ‘cool down’ to protect the DPF from thermal shock, reducing the risk of cracking the DPF.
- Holds temperature constant for two hours to ensure complete regeneration of filter.
- Includes both standard cycle and “pre-treat” cycle for oil-soaked filters.
- Built-in electronic safety lock prevents unauthorized opening of the door when temperatures exceed 200 degrees F.
- Large chamber accommodates various DPF sizes and shapes.
- Front access door allows for easy access to the thermal chamber.
- 220VAC / 60Hz / Single phase / 50 Amp.
- 1-year warranty.
- CE, UL201, UL499.
- Internal chamber dimension: 24” (L) x 24” (W) x 26” (H).

---

**J-47399 Horizontal DPF Handler**
- The Universal mounting assembly adjusts, from front to back and side to side for easy DPF handling.
- The height range of 6-1/2” to 29-1/2” is ideal for most of today’s trucks.
- Safety strap holds the load securely while moving about the shop.

**Specifications:**
- Overall Length: 34-1/2”
- Overall Width: 19-3/8”
- Max. Height: 29-3/4”
- Min. Height: 7-1/2”
- Side tilt: 30°, Front tilt: 15°, Back tilt: 15°

---

**5281 OTC DPF Thermal Processing Unit**

**5281 OTC DPF Thermal Processing Unit**

**5281 OTC DPF Thermal Processing Unit**
SHOP EQUIPMENT

Clutch Lifts ................................................................. 200
Power Train Lifts ..................................................... 200
Air Lifts / Driveline Lifts ........................................... 201–202
Transmissions Jacks .................................................... 201–202
Truck Ramps ............................................................... 203
Under Axle / Service Jacks .......................................... 204–207
Fork Lifts .......................................................................... 208
Stands ............................................................................. 208
Car Dollies ....................................................................... 209
Brake Drum Dolly ......................................................... 210
Wheel dollies ................................................................. 210
Engine Stands ................................................................. 211–212
Engine support Bars ..................................................... 212
Floor Cranes ................................................................. 213–214
Lifting Chains ............................................................... 214
Filter / Fluid / Oil Service ............................................... 215
Presses & Accessories .................................................. 216–219
Bottle Jacks ..................................................................... 220
Collision Repair Sets ................................................... 221
Hydraulic Spreaders ..................................................... 221
Hydraulic Flow Meters ................................................... 222–223
Hydraulic Pumps & Rams ............................................... 224–223
Hydraulic Accessories .................................................. 233–234
## 5015A Truck Clutch & Flywheel Handler
- Handles 14" and 15-1/2" clutch assemblies weighing up to 150 lbs.
- Lifting range of 9" to 37". Swivel casters provide easy maneuverability.
- Includes a 2" spline shaft with a 1-1/4" pilot to aid in alignment.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5018A</td>
<td>Truck Clutch &amp; Flywheel Handler</td>
</tr>
<tr>
<td>516160</td>
<td>Optional flywheel handling attachment</td>
</tr>
<tr>
<td>515686</td>
<td>Optional splined shaft, 1-3/4&quot; dia. with 1-1/4&quot; pilot</td>
</tr>
<tr>
<td>516159</td>
<td>Optional splined shaft, 1-3/4&quot; dia. with 1&quot; pilot</td>
</tr>
</tbody>
</table>

## 516160 Optional Flywheel Handling Attachment
- Provides easy maneuverability.
- Includes a 2" spline shaft with a 1-1/4" pilot to aid in alignment.
- Covered by OTC Lifetime Warranty®.

## Power Train Lifts
- These lifts will handle engine and transmission assemblies, gas tanks, drive axle assemblies, engine/transaxle assemblies, electric vehicle batteries, and more.
- Scissors-type design allows access to all four sides of a component.
- Two independent adjusting screws tilt the table ±15° side-to-side, or fore and aft. Can be operated manually or with non-impact air wrench.
- 20" x 32" table.
- 8" swivel casters provide enhanced mobility under heavy loads.
- ANSI/PALD compliant.

### 5285 Power Train Lift (1,650 lb. Capacity)
- Air / hydraulic operation
- Foot control pump with hose allows movement around lift.
- Min. height is 31-1/2"; Max. height is 74-1/2".
- Footprint 33" wide x 48" long.

### 1599 Power Train Lift (2,500 lb. Capacity)
- Powered by a quiet, 110V electric/hydraulic pump.
- Smooth, steady lifting and lowering motion controlled by hand-held remote.
- A 30 ft. long retractable extension cord is mounted to the frame.
- Min. height is 29; Max. height is 80°.
- Footprint 31" wide x 50" long.

### 5295 Powertrain Lift (1,760-lb capacity)
- The sliding split table top design of this powertrain lift allows for separation of the engine/transmission assembly or hybrid engine/generator module, making service easier. The unique design also helps handle removal and installation of electric vehicle batteries, fuel tanks, suspension systems and other powertrain assemblies.
- A generous ground clearance allows for floor crane access while still on the lift. The table tilts to help properly align components to the vehicle during installation and threaded holes in the tabletop accommodate future adapters and powertrains.
- Similar to GM lift P/N GE-52200 and Honda lift P/N HON52200.

## Lift Pad Adapters
- Lift Pad Adapters
- Lifting System
- Truck Clutch & Flywheel Handler
- 200 otctools.com

## Specifications
- **1520, Power Train Lift (1,760-lb capacity)**
  - Footprint 33" wide x 48" long.
  - Height – 53-1/4"
  - Saddle spread – 24" – 39-1/2"
  - Lifting range – 13” – 52”
  - Saddle width – 19-1/2” – 24”
  - Air pressure – 100–200 psi
  - Capacity – 10 tons (at 200 psi air)
  - Min. height is 29; Max. height is 74-1/2”
  - Footprint 33" wide x 48" long.

## Unique Design
- Single controller operates both sides of the system for a smooth, level lift up to two full feet from the bottom of the tires to the ground. Units can double as support stands when retention pin is inserted.
- Covered by OTC Lifetime Warranty®.

## 1590 10-Ton Air Lift
- Adjustable lifting saddles and an extra-wide stance for extra stability.
- Automatic mechanical safety catch engages in five height positions.
- Two large swivel casters and pneumatic tires make it easy to maneuver, even on loose gravel.
- Covered by OTC Lifetime Warranty®.

### Specifications
- Capacity – 10 tons (at 200 psi air)
- Air pressure – 100–200 psi
- Lifting range – 13” – 52”
- Saddle spread – 29” – 41-3/4”
- Saddle – 4” X 5-1/4”
- Height – 67-1/2”
- Width – 41”
- Length – 36”
- Distance from lift arm to floor support – 12-1/2”

## Optional Saddle Set for 1590
- Optional saddle set for 1590. Saddle – 4” X 5-5/8”

## 5287 Lift Pad Adapters, set of two
- The adapters sit on the host or jack saddle and seat inside frame holes on GM vehicles to prevent saddle lip from damaging frames or subframes. Similar to J-34625.

## Mobile, tandem system is air-operated.
- This will handle your class 7 and 8 tractor lifting needs.
- No need to waste time re-blocking and making additional lifts for the clearance you need for under-vehicle service. Roll the system to the vehicle anywhere in the shop or outside on a level surface.
- Unique design provides lift from the tires, not the frame or axle members. Ideal for situations where limited ground clearance or a lack of clear access complicates lifting.
- Single controller operates both sides of the system for a smooth, level lift up to two full feet from the bottom of the tires to the ground. Units can double as support stands when retention pin is inserted.
- Covered by OTC Lifetime Warranty®.

## Power Train Lifts
- These lifts will handle engine and transmission assemblies, gas tanks, drive axle assemblies, engine/transaxle assemblies, electric vehicle batteries, and more.
- Scissors-type design allows access to all four sides of a component.
- Two independent adjusting screws tilt the table ±15° side-to-side, or fore and aft. Can be operated manually or with non-impact air wrench.
- 20" x 32" table.
- 8" swivel casters provide enhanced mobility under heavy loads.
- ANSI/PALD compliant.
POWER TRAIN LIFT / TRANSMISSION JACKS
SHOP EQUIPMENT

1585A
Power Train Lift – 1,250 lb. Capacity
• For easy removal and installation of engine/transaxle assemblies on FWD vehicles. Also handy for pulling rear ends, leaf springs, and more.
• Includes 4020 air/hydraulic pump.
• Your shop air supply is the only thing you need to get the precise control.
• Width between wooden support blocks is adjustable from 0–29”. Load is secured with a tough nylon strap.
• Covered by OTC Lifetime Warranty®.

5078
Transmission Jack Air-Assisted
2,000 lb. Capacity High-Lift, for Trucks & Buses
• Foot-operated air pump enables the operator to effortlessly raise the transmission into place.
• Rugged, heavy wall tubing and oversized base for stability.
• A dedicated adapter for Allison 500- and 600-series automatic transmissions is included.
• Covered by OTC Lifetime Warranty®.

1728
Air-Assisted 1,000 lb. Capacity High-Lift Transmission Jack
• Unique foot pedal design gives you complete control over the air-driven first stage to rapidly raise the mounting head to the transmission; second stage is hydraulically actuated — permitting precise operator control during removal and installation.
• Transmission mounting head features four ratcheting brackets that adjust to fit a wide range of transmissions. Four-wheel base with locking swivel casters provides stability and portability.
• Safety bypass prevents damage caused by a system overload.
• Carries OTC Lifetime Warranty®.

Specifications:
Min. height is 34-1/2” Max. height is 72”
Max. forward tilt – 40° Max. backward tilt – 20°
Max. side tilt (either side) – 10°
Leg width – 41” Air pressure (psi) 90 to 160

1794A
Air-Assisted 1,000 lb. Capacity High-Lift Transmission Jack
• Air-assist primary stage for rapidly raising the mounting head, activated by depressing foot pedal.
• Hydraulic secondary stage for precise operator control, activated by a hand pump to raise the load, and a release knob to lower the load.
• Big, easy-to-grip knobs that make mounting head adjustments simple, and a safety chain for securing the load.
• Wide leg base with 4” polyurethane swivel wheels that provide stability and easy maneuvering. (Brakes on two of the wheels.)
• Safety overload system to prevent jack from being used beyond its rated capacity.

Specifications:
Min. height is 37-5/8” Max. height is 76-1/2”
Max. forward tilt – 42° Max. backward tilt – 46°
Max. side tilt (either side) ± 12°
Leg width – 37-1/8”

5237
1,000 lb. Capacity High-Lift Transmission Jack
• Universal mounting head provides wide fore and aft tilt range.
• Two-stage hydraulic cylinder design.
• Innovative folding foot pedal and release provides precise ease of control when positioning or removing a transmission.
• Significantly reduces force required to lift extremely heavy transmissions.
• Upgraded ergonomic handles for adjustment.
• ANSI/PALD compliant.

Specifications:
Min. height is 34-1/2” Max. height is 75”
Max. forward tilt – 50° Max. backward tilt – 20°
Max. side tilt (either side) – 10°
Leg width – 41”
5130
1,000 lb. Capacity DriveMaster™ Driveline Lift
- Low profile of 7" and a Lift range: 7" to 30".
- Pivoting pump handle +/- 15° in each direction
- Includes 553516 Differential Adapter
- ANSI/PALD
Specifications:
- Overall Length – 43" Overall Width – 30-1/4"
- Max. Height – 30" Min. Height – 7"

5019A
2,200 lb. Capacity Low-Lift Transmission Jack
- Special mounting adapter fits popular Eaton Fuller® RoadRanger® transmissions used on nearly all Class 7 and 8 heavy-duty trucks. Mounting plate angle is adjusted with the turn of a wrench.
- Swiveling pump handle permits ease of operation in restricted working spaces.
- Fast-acting pump quickly raises lifting arm.
- Includes No. 504231 adapter for Eaton® Fuller® RoadRanger® transmissions (also available separately).
Specifications:
- Min. height is 8-1/4" Side tilt (either side) – 12°
- Max. height is 36-1/2" Overall length – 52"
- Forward tilt – 15° Overall width – 32-1/2"
- Backward tilt – 20°

5091
Heavy-Duty Spindle Adapter
This low-lift transmission jack adapter holds the spindle assembly firmly in place during king pin service. It eliminates the need to completely disassemble the brakes to reduce spindle weight for handling. During service, the spindle assembly can be raised to a comfortable working height while replacing king pin bearings or bushings. Our patented design will work with standard HD truck bolt patterns and wheel stud sizes and adapts to most low-lift transmission jacks.

528150 Eaton® “Lightning” adapter

540231 528150 Eaton® Fuller® RoadRanger® auxiliary housing adapter

553516 Differential Mounting Adapter
Mounts easily using existing bolt patterns. Fits the most common differentials currently in use on Category 7 and 8 Heavy Duty Trucks. Including: Eaton, Fuller, Rockwell, Meritor, Spicer, International, and Mack. For use on OTC (5019A – 553516 requires 365188 adapter) 5078 and Stinger 1522A Transmission Jacks.

49611 Eaton® Fuller® RoadRanger® auxiliary housing adapter
Bolts directly to the countershaft bearing caps to provide a stable platform for removing and installing the auxiliary housing.

558382 Auxiliary box adapter

561949 Light duty transmission adapters

528150 Eaton® “Lightning” adapter

49611 Eaton® Fuller® RoadRanger® auxiliary housing adapter

553516 Differential Mounting Adapter
Mounts easily using existing bolt patterns. Fits the most common differentials currently in use on Category 7 and 8 Heavy Duty Trucks. Including: Eaton, Fuller, Rockwell, Meritor, Spicer, International, and Mack. For use on OTC (5019A – 553516 requires 365188 adapter) 5078 and Stinger 1522A Transmission Jacks.

314729 Allison 500/600 series automatic trans-mission adapter used with No. 5078 transmission jack.

540231 Eaton® Fuller® RoadRanger® transmission adapter

540232 Mack transmission mounting brackets Provides a stable platform for Mack T200 series transmissions.

1522A
Heavy-Duty 2,000 lb. Capacity Low-Lift Transmission Jack...for Class 7 and 8 Trucks
- Includes No. 220492 adapter for Eaton® Fuller® RoadRanger® transmissions.
- Pump handle rotates 360° for operator convenience: ball bearing 3.5" diameter swivel casters provide easy positioning of jack.
- Safety overload system prevents use of jack beyond its rated capacity, and a safety bypass protects the hydraulic cylinder from damage.
Specifications:
- Min. height is 6-7/8" Side tilt (either side) – 11°
- Max. height is 35-1/4" Overall length – 43-1/2"
- Forward tilt – 24° Overall width – 26"
- Backward tilt – 18°

1521A
1,000 lb. Capacity Low-Lift Transmission Jack
- Universal mounting head, with adjustable brackets, tilts front to back and side to side for easy transmission alignment.
- Safety chains hold the load securely, even while moving about the shop.
- Wide, stable wheel base with four swivel casters, and two handle grips make it easy to position under the vehicle.
- Safety overload prevents jack from being used beyond its rated capacity.
- Pump handle rotates a full 360° for use in any position.
Specifications:
- Min. height is 7-1/2" Overall length – 34-1/2"
- Max. height is 29-3/4" Overall width – 19.3/8"
Here’s a helpful device that enables you to securely hold and rotate small engines, transmissions, and other components while you’re working on them.

- This holding fixture will handle pieces weighing up to 250 lbs., and it offers 360° of rotation with positive stops at 90° increments.
- Three sides of the mounted unit remain fully exposed.

34607 Similar to Ford D83L-500-B1, 300-D041

The transmission is held with three sides fully exposed for working convenience, and can be rotated a full 360° for complete access to all parts.

- Cross-link polyethylene foam pads protect tank from damage.

1758 Fuel Tank Handler

- Provides safe and efficient handling of fuel tanks. Adjustable from 24" to 38" horizontally, and 7" to 11" vertically, to service tanks up to 40 gallons.
- Universal adapter plate fits all OTC and virtually all competitive transmission jacks and power train lifts in the market.
- Gearing mechanism ensures equal extension of lift arms to ensure load is properly balanced over jack.
- Four adjustable support risers can be individually adjusted to ensure a perfect fit to any fuel tank design.

Shown mounted on an OTC high-lift jack.

- Cross-link polyethylene foam pads protect tank from damage.

223196 Transmission Jack Mounting Adapter Set

- Used with No. 1728 transmission jack. Ideal for use on larger standard transmissions with irregularly shaped oil pans.
- Four adjustable arms help stabilize transmissions that have rounded bottom surfaces.

7020 Bench-Mounted Holding Fixture

Here’s a helpful device that enables you to securely hold and rotate small engines, transmissions, and other components while you’re working on them.

- This holding fixture will handle pieces weighing up to 250 lbs., and it offers 360° of rotation with positive stops at 90° increments.
- Three sides of the mounted unit remain fully exposed.

34607 Base assembly only.

20-Ton Truck Ramps

- Long, retractable T-handle enhances mobility.
- Non-skid rubber matting prevents slippage during use.
- Durable, heavy-duty rubber wheels.
- Capacity per pair is 20 tons.
- Covered by OTC Lifetime Marathon Warranty®.

5268 – 20-ton truck ramps handle up to 10” tread width.
5269 – Wide 20-ton truck ramps handle up to 16” tread width

<table>
<thead>
<tr>
<th>Model</th>
<th>Frame Height</th>
<th>Frame Width</th>
<th>Frame Length</th>
<th>Wheel Diameter</th>
<th>Handle Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>5268</td>
<td>9-1/4” (23.5 cm)</td>
<td>13-1/2” (34.29 cm)</td>
<td>47” (119.38 cm)</td>
<td>5” (12.7 cm)</td>
<td>33” (83.82 cm)</td>
</tr>
<tr>
<td>5269</td>
<td>9-1/4” (23.5 cm)</td>
<td>18-1/4” (46.36 cm)</td>
<td>47” (119.38 cm)</td>
<td>5” (12.7 cm)</td>
<td>33” (83.82 cm)</td>
</tr>
</tbody>
</table>

203
5292
27.5-Ton Under Axle Jack
- Features class-leading 27.5 ton capacity.
- Robust design with completely sealed piston.
- New lever design and pneumatic release valve for more precise release control.
- Power return allows lowering with no load.
- Includes two height adapters for flexibility.
- PALD compliant.
- Minimum retracted height (with saddle only): 8-1/4”.
- Maximum extended height (with screw extended and large adapter): 21-3/8”.
- Stroke: 4.9375”.
- PSI range: 90 to 175.

5093B
3-Stage Under-Axle Jack
Three-stage lift capacity 22.1T, 38.5T, and 71.5 tons. Ideal for lifting loaded trailers, buses, and other Class 7 & 8 vehicles.
- Piston and cylinders are made from chromium molybdenum vanadium steel for durability and then liquid nitrided to prevent rust and seizing.
- Features a high load-approach speed.
- Air-driven cylinder with pressure control knob for maximum user safety.
- 4-position handle: horizontal, 45 degrees, vertical, or collapsed.
- 7-inch minimum height for low clearance vehicles.
- Comes complete with a 3-15/16 in. (100 mm) lifting extension.
- Complies with ASME / PALD test requirements.

5200
Ultra-Low Profile 2-Ton Service Jack
- Minimum saddle height of just 1-7/8”.
- Unique, fifth-wheel design provides effortless 360° maneuverability – literally spins on a dime!
- Featuring Polyamide casters – superior to cast wheels due to their high mechanical strength and thermal properties.
- Foot pedal for quick approach of saddle to lifting point. Ergonomic handle for user comfort and enhanced mobility.
- Lifting range of 1-7/8” to 20-1/2”.
- CE marked – ASME / PALD tested.
**SERVICE JACKS**

**SHOP EQUIPMENT**

### 2- & 3-Ton Service Jack
- Ergonomic handle for user comfort and easy mobility.
- Foot pedal for quick approach of the lifting saddle to load. Built-in tray for fasteners and tools.
- CE marked – ASME/PALD tested.
- Covered by OTC Lifetime Warranty®.

#### 5202A
- 2-ton Service Jack
- Min. height 3"; Max. height 18-1/4".

#### 5203A
- 3-ton Service Jack
- Min. height 5-1/2"; Max. height 20-1/2".

<table>
<thead>
<tr>
<th>Specifications</th>
<th>5202A</th>
<th>5203A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>2-ton</td>
<td>3-ton</td>
</tr>
<tr>
<td>Min. height</td>
<td>3&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>Max. height</td>
<td>18-1/4&quot;</td>
<td>20-1/2&quot;</td>
</tr>
<tr>
<td>Overall length</td>
<td>34-5/8&quot;</td>
<td>42-1/4&quot;</td>
</tr>
<tr>
<td>Overall width</td>
<td>14-3/16&quot;</td>
<td>14-3/16&quot;</td>
</tr>
<tr>
<td>Handle length</td>
<td>39-1/2&quot;</td>
<td>39-1/2&quot;</td>
</tr>
</tbody>
</table>

1533A Includes 1532A and 1582A

#### 1532A
- 2-Ton Aluminum Service Jack
  - Light-weight aircraft-grade aluminum construction makes it easy to carry and roll
  - Low profile allows it to be used with ground-hugging high-performance cars
  - Meets ASME PASE-2014 Standard for Service Jacks
  - Includes side mounted carrying handles for quick and easy carrying
  - Min. height 3-1/4"; max height 18-5/8"

**Product Specs:**
- Handle Length 47.6 inches
- Saddle Diameter 4.5 inches
- Wheel Diameter 2.5 inches
- Caster Diameter 1.75 inches
- Strokes to Full Height 5
- Actuating Handle Effort 85 lbs

1582A 2-Ton Aluminum Jack Stands (2 included)
- Flat round base doesn’t dig in to soft surfaces such as asphalt
- Placement of hole locations allows for broad range from low to high heights
- Light weight material makes handling and use easy

**Product Specs:**
- Low Height 9.5 inches
- High Height 15.2 inches
- Number of Adjusting Positions 6
- Base Diameter 7.0 inches
- Weight of Each Stand 4.70 lbs
- Saddle Size 2.2 x 2.2 inches

#### 1547
- Includes 1532A and 1582A

#### 1546
- 3-Ton Aluminum Service Jack
  - Light-weight aircraft-grade aluminum construction makes it easy to carry and roll
  - Low profile allows it to be used with ground-hugging high-performance cars
  - Meets ASME PASE-2014 Standard for Service Jacks
  - Includes side mounted carrying handles for quick and easy carrying
  - Min. height 3-5/8"; max height 19-3/16"

**Product Specs:**
- Handle Length 47.6 inches
- Saddle Diameter 4.6 inches
- Wheel Diameter 2.6 inches
- Caster Diameter 2.0 inches
- Strokes to Full Height 7
- Actuating Handle Effort 106 lbs

1596 3-Ton Aluminum Jack Stands (2 included)
- Flat round base doesn’t dig in to soft surfaces such as asphalt
- Placement of hole locations allows for broad range from low to high heights
- Light weight material makes handling and use easy

**Product Specs:**
- Low Height 9.5 inches
- High Height 15.6 inches
- Number of Adjusting Positions 6
- Base Diameter 7.1 inches
- Weight of Each Stand 4.74 lbs
- Saddle Size 2.2 x 2.0 inches

552650 Aluminum Racing Jack wall Mount
- Ideal for storing or displaying OTC Racing Jack:
  - Easily mounts to shop wall or side of truck.
  - Includes convenient snap-in handle clasps.
  - Velcro strap for additional security.

**SEE PAGE 208 FOR JACKS STANDS 3-TON, 6-TON AND 12-TON STANDS.**
**SERVICE JACKS**

**SHOP EQUIPMENT**

---

**2-1/4 / 3-Ton Hydraulic Service Jacks**
- Flanged upper body edge increases strength to resist twisting.
- Light, compact design makes them easy and convenient to use.
- Built-in safety overload system prevents use beyond their rated capacity.
- Rear swivel casters, for easy maneuvering and positioning.
- These jacks have 4” saddle dia., 21” overall reach, 6-1/2” frame height.
- 39-1/2” handle length, and a floor space of 13-1/2” x 24-1/2”.

**5302**
- 2-1/4-ton capacity with a lifting range of 5” to 18”.

**5303**
- 3-ton capacity with a lifting range of 5-3/4” to 18-1/2”.

---

**5300**
**OTC Stinger 3-Ton Jack Pack**
This jack pack includes (5303) 3-ton service jack and (5372) Pair of 3-ton jack stands.

**5303 3-Ton Service Jack**
- Flanged upper body edge increases strength to resist twisting.
- Light, compact design makes them easy and convenient to use.
- Built-in safety overload system prevents use beyond their rated capacity.
- Rear swivel casters, for easy maneuvering and positioning.
- Lifting range of 5-3/4” to 18-1/2”.
- 4” saddle dia., 21” overall reach, 6-1/2” frame height.
- 39-1/2” handle length, and a floor space of 13-1/2” x 24-1/2”.

**5372 3-Ton Service Jack Stands**
- Base: 8-1/4” x 7-1/2”.
- Height range: 12” to 17-11/16”.
- 11 adjustment positions.
- Welded foot pads resists sinking into soft ground or asphalt.

---

**1536A**
**OTC Stinger 3-1/2 Ton Jack Pack**
This jack pack includes (1526A) 3-1/2-ton service jack and (1796) Pair of 4-ton jack stands.

**1526A Two-Speed 3-1/2 Ton Service Jack**
The ideal floor jack for both a large automotive service center or a one person shop.
- Gets to the load quickly.
- One pump to load; three pumps to full height unloaded.
- Extra wide lift range – from 4” to 21”.
- A long 48” spring-loaded handle provides rapid return after each pump.
- Heavy-duty construction – rolled edges add strength and resist twisting.
- With a wheel base of 23”, the front wheels are 3-1/2” diameter and rear casters are 2-1/8”.
- Pinned 4-3/4” saddle will not lift off during use.
- 2-year limited warranty.

**1796 4-Ton Stinger Jack Stands**
Meet the latest ASME PASE safety standards and feature a wide range of locking heights and adjusting positions to provide a universal stand for most vehicles. The form-fit saddle design and wide base ensures stability.
- Lifting range of 15-1/2” to 23-13/16”.

---

**Specifications**

<table>
<thead>
<tr>
<th></th>
<th>5302</th>
<th>5303</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>2-1/4 ton</td>
<td>3-ton</td>
</tr>
<tr>
<td>Lifting range</td>
<td>5” to 18”</td>
<td>5-3/4” to 18-1/2”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>4”</td>
<td>4”</td>
</tr>
<tr>
<td>Frame height</td>
<td>6-1/2”</td>
<td>6-1/2”</td>
</tr>
<tr>
<td>Handle Length</td>
<td>39-1/2”</td>
<td>39-1/2”</td>
</tr>
<tr>
<td>Floor space</td>
<td>13-1/2” x 24-1/2”</td>
<td>13-1/2” x 24-1/2”</td>
</tr>
</tbody>
</table>
5-Ton and 10-Ton Service Jacks

- A built-in safety overload prevents using the jack beyond its rated capacity.
- Convenient foot pedal speeds the lifting operation. Handle lock and release control are located on top of the handle. Handle can be locked into any position from vertical to horizontal.
- Both models have a spring-loaded 40” handle.

### 1505B
5-ton service jack

### 1510B
10-ton service jack

### 1512
20-ton service jack

#### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>1505B</th>
<th>1510B</th>
<th>1512</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5-ton</td>
<td>10-ton</td>
<td>20-ton</td>
</tr>
<tr>
<td>Air pressure</td>
<td>80–120 PSI</td>
<td>80–120 PSI</td>
<td></td>
</tr>
<tr>
<td>Lifting range</td>
<td>5-7/8” to 22”</td>
<td>6-3/8” to 22”</td>
<td></td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>6-5/8”</td>
<td>5-3/4”</td>
<td></td>
</tr>
<tr>
<td>Overall reach</td>
<td>87”</td>
<td>90”</td>
<td></td>
</tr>
<tr>
<td>Frame height</td>
<td>8”</td>
<td>10”</td>
<td></td>
</tr>
<tr>
<td>Handle length</td>
<td>40”</td>
<td>45”</td>
<td></td>
</tr>
</tbody>
</table>

5-Ton and 10-Ton Air/Hydraulic Service Jacks

- Bring the versatility of air-assist operation to your shop's lifting tasks.
- Huge front wheels mounted in bearings provide trouble-free service life. Rugged steel frame members.
- Rear swivel casters make spotting the jack easy. Spring-loaded handle may be locked in three positions, from horizontal to vertical.

#### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>1507B</th>
<th>1511B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5 ton</td>
<td>10 ton</td>
</tr>
<tr>
<td>Air pressure</td>
<td>80–120 PSI</td>
<td>80–120 PSI</td>
</tr>
<tr>
<td>Lifting range</td>
<td>5-7/8” to 22”</td>
<td>6-3/8” to 22”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>6-5/8”</td>
<td>5-3/4”</td>
</tr>
<tr>
<td>Overall reach</td>
<td>87”</td>
<td>90”</td>
</tr>
<tr>
<td>Frame height</td>
<td>8”</td>
<td>10”</td>
</tr>
<tr>
<td>Handle length</td>
<td>40”</td>
<td>45”</td>
</tr>
</tbody>
</table>

5-Ton and 10-Ton Air/Hydraulic Service Jacks

- Bring the versatility of air-assist operation to your shop's lifting tasks.
- Huge front wheels mounted in bearings provide trouble-free service life. Rugged steel frame members.
- Rear swivel casters make spotting the jack easy. Spring-loaded handle may be locked in three positions, from horizontal to vertical.

#### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>1507B</th>
<th>1511B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5 ton</td>
<td>10 ton</td>
</tr>
<tr>
<td>Air pressure</td>
<td>80–120 PSI</td>
<td>80–120 PSI</td>
</tr>
<tr>
<td>Lifting range</td>
<td>5-7/8” to 22”</td>
<td>6-3/8” to 22”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>6-5/8”</td>
<td>5-3/4”</td>
</tr>
<tr>
<td>Overall reach</td>
<td>87”</td>
<td>90”</td>
</tr>
<tr>
<td>Frame height</td>
<td>8”</td>
<td>10”</td>
</tr>
<tr>
<td>Handle length</td>
<td>40”</td>
<td>45”</td>
</tr>
</tbody>
</table>

20-Ton Capacity Service Jack

- Low-profile stance and extended height add to versatility.
- Wheels and swivel casters feature internal bearings.
- Either the foot pedal or jack handle may be used for pumping action. Counter-balanced, spring-assisted handle has a three-position lock.

#### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>1505B</th>
<th>1510B</th>
<th>1512</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>5-ton</td>
<td>10-ton</td>
<td>20-ton</td>
</tr>
<tr>
<td>Lifting range</td>
<td>6” to 22”</td>
<td>6-1/4” to 22”</td>
<td>7-1/2” to 24”</td>
</tr>
<tr>
<td>Saddle dia.</td>
<td>5-1/8”</td>
<td>6”</td>
<td>7-1/2”</td>
</tr>
<tr>
<td>Overall reach</td>
<td>47”</td>
<td>51”</td>
<td>97”</td>
</tr>
<tr>
<td>Frame height</td>
<td>7-3/4”</td>
<td>9-3/4”</td>
<td>10-1/4”</td>
</tr>
<tr>
<td>Handle Length</td>
<td>43”</td>
<td>43-1/4”</td>
<td>42”</td>
</tr>
<tr>
<td>Floor space</td>
<td>14-3/4” to 56”</td>
<td>18” to 60”</td>
<td>18-1/8” to 61-3/8”</td>
</tr>
</tbody>
</table>
5214
4-Ton Capacity Fork Lift Jack
- 8,000 lb. capacity with a low starting height of 2-5/32”.
- 10,000 lb. capacity (5 tons) when lifting from cylinder saddle – ideal for agriculture and industrial applications.
- Unique shape of primary saddle allows for handling of all lift truck configurations with flat or edged surfaces.
- Features include high-quality seals, chrome-plated internal components, and high-strength steel construction.
- Secondary lifting surface feature.
- Complies with ASME-PALD.
- Lifting Height: 2-5/32” – 17-15/16”.

1540
4-Ton Capacity Fork Lift Jack
- 8,000 lb. capacity with a low starting height of 2-5/8”.
- Two-position lift pad permits handling of all lift truck configurations with flat or edged surfaces.
- Minimum low lift: 2-1/4”.
- Maximum high lift: 16-1/4”.
- Features include high-quality seals and high-strength steel construction.
- Handle stop makes for easy maneuverability.
- 30” long handle.

3- and 6-Ton Ratcheting Jack Stands
- Jack stands feature a formed steel frame for strength and long life, and rolled base edges that resist sinking into soft ground or asphalt.
- Recessed column saddle for acceptance of vehicle panel rail (pinch weld).
- Dual purpose handle serves as carrying handle and column release.
- Investment cast rack bar for long life strength.
- Covered by OTC Lifetime Warranty®.

1774B 10-Ton Capacity Ratcheting Jack Stands (pair)
- These ratcheting jack stands are highest quality steel and factory tested to ANSI PALD standards.
- The form-fit saddle design and 12” x 14” base ensures stability.
- Height range is 20” to 31-1/2”.

1780 22-Ton Capacity Jack Stands
- Height range is 13-7/8” to 19-7/8”.
- Saddle size 3” x 3-3/4”.
- Pin-style (non-ratchet) three positions, 3’ intervals.
- Reinforced collar to meet newest ANSI PALD test standards.
- 11” flat base prevents sinking into the surface.

5372 Pair of 3-ton jack stands.
- Base: 8-1/4” x 7-1/2”.
- Height range: 12” to 17-11/16”.

1796 Pair of 4-ton jack stands.
- Base: 11-7/16” x 10-3/8”.
- Height range: 15-5/8” to 23-11/16”.

5373 Pair of 6-ton jack stands.
- Base: 11-9/16” x 10-3/8”.
- Height range: 15-5/8” to 23-11/16”.

1784D Pair of 12-ton jack stands.
- Base: 12-1/8” x 14-3/4”.
- Height range: 17-1/2” to 27-1/2”.

1783 Heavy-Duty 20-Ton Capacity Adjustable Support (One only)
- Designed for the really big service jobs. Rugged steel construction, and large 15-1/2” square base will satisfy support requirements up to 40,000 lbs.
- Features include 4-point adjustment. Height range is 15-1/4” to 24”. Saddle diameter is 6”.
- Covered by OTC Lifetime Warranty®.

1779B 12-Ton Capacity Low profile Jack Stand (One only)
- Spun steel base won’t dig or sink into asphalt or sand.
- Height range of 19” to 29-1/2”.
- Covered by OTC Lifetime Warranty®.

Extension Tubes for 1778B and 1779B Jack Stands
543751 Extension Tube Height range of 19” to 29-1/2”
543752 Extension Tube Height range of 33-3/4” to 44-1/4”

1781B 4,000 lb. Capacity Underhoist Tripod Stand
- Ideal for undercar maintenance. An ACME take-up screw precisely positions and secures the support stand in place.
- Height range of 65-3/4” to 74-5/8”.

5373
Tripod and Underhoist Stands

**2018A 4,000 lb. Capacity Underhoist Tripod Stand**
Lifting height of 58-7/8" to 91-5/8"; saddle measures 3-1/4" x 3-1/4";
• 24" x 24" x 24" tripod base.

**2015A 1,500 lb. Capacity Underhoist Stand**
Lifting height of 54-1/4" to 80-3/4"; saddle measures 5-1/4" x 1-1/4";
• 11-7/8" dia. base.

**2016A 1,500 lb. Capacity Underhoist Stand with Foot Pedal**
Foot pedal actuated lifting mechanism.
• Lifting height of 54-1/4" to 80-3/4"; saddle measures 5-1/4" x 1-1/4".

Wheel Step

**1734A 300 lb. Capacity Heavy-Duty Wheel Step**
• Tire-mounted wheel step provides quick, easy access to under-hood components.
• Fits heavy-duty vehicles (Class 7/8).
• Adjusts to fit 22-1/2" to 24" wheel sizes.
• Non-skid platform surface.

**1534A 300 lb. Capacity Passenger/Light Truck Wheel Step**
• Provides quick, easy access to your vehicle’s roof for loading/unloading cargo.
• Fits passenger and light trucks.
• Adjusts to fit 14" to 20" wheel sizes.
• Non-skid platform surface.
• Two-year warranty.

**1572 Car Dolly (3,600 lbs., capacity pair)**
• Innovative patent-pending design — clamps directly to pinch welds to prevent slippage during use.
• Independent units eliminate the need to adjust dolly width for different vehicle designs.
• Each unit has an independently adjustable threaded lift saddle with rubber pads to protect the vehicle frame.
• Universal design for use on all vehicle types without additional adapters.
• Provides easy movement of FWD vehicle after removal of drive train.
• The material on the 5" casters is polypropene.
• Each unit has 1,800 lbs. capacity (3,600 lbs., pair) with low height of 9" and high of 14".
• May be used with or without tires on vehicle.

**1545 Motorcycle/ATV Lift**
• 1,500 lb. capacity and 17" long skids that will lift the largest, widest cruisers.
• Lowest clearance available, 3-1/2" at lowest level, with a wide lift range of 3-1/2" to 16-3/4".
• Removable handle provides 360° access to load.
• Features also include foot pedal release, locking rear casters, automatic safety lock, and two ratcheting tie down straps for safety.

**1580 (sold individually)**
**1,500 lb. Capacity Easy Roller™**
• Provides simple and efficient method of moving a disabled vehicle around a shop environment.
• Fits tread widths up to 12".
• 4 heavy-duty phenolic casters.
• 1,500 lbs. capacity per unit.
• Hydraulic lift mechanism with locking pin.

**5090 Back Buddy™ II**
• Remove, transport, service, and install heavy truck brake drums and hub assemblies.
• Fast-motion ratcheting jack with 14” of vertical lift.
• Pneumatic rear tires.
• Tilting mechanism to achieve the exact angle necessary for precise reassembly.
• Fold-down handle for open access to the work area.

**Adapter Sets (sold separately)**
**513926 10 stud inboard hub & drum assemblies – 335 mm.**
**513927 10 hole outboard drums – 3/4" thick back plates**
**513925 5 and 6 spoke wheels**
**514644 8 stud inboard hub & drum assemblies**
**514645 8 hole outboard drums**
**514646 6 stud inboard hub & drum assemblies**
**514647 6 hole outboard drums**
**514648 Humvee/Hummer geared hubs**
**BRAKE DRUM / WHEEL DOLLIES**

**SHOP EQUIPMENT**

---

**5017A**

**Brake Drum Dolly**
- Remove, install, and transport truck brake drums without physically having to lift them.
- Works on 15" and 16-1/2" drums found on most Class 7 and 8 tractor and trailer brake systems.
- Heavy-gauge steel construction, ten-inch pneumatic tires, and adjustable handle.
- Covered by OTC Lifetime Marathon Warranty®.

---

**1543**

**Brake Drum Dolly**
- Removes, installs, and transports truck brake drums without physically having to lift them.
- Works on all 15" and 16-1/2" drums found on most Class 7 and 8 tractor and trailer brake systems.
- 6" height adjustment aids installation.
- Heavy-gauge steel construction, 8" tires, and 36" handle.

---

**Easy Lever Wheel Dollies**
- Gives technicians the leverage they need to easily remove or install truck tire-and-wheel assemblies.
- Heavy-duty construction capable of toting 300 pounds.
- Onboard rollers that make stud-hole alignment a snap.
- Spring-loaded kickstand for handy parking.
- Two models that, together, can accommodate tire diameters from 24 to 48 inches.
- Rugged tubular steel construction.

**5096A Heavy-duty Easy Lever Wheel Dolly**
- With a width of 26", this dolly handles tire diameters of 36" to 48".

**5095A Easy Lever Wheel Dolly**
- With a width of 22", this dolly handles tire diameters of 24" to 36".

---

**5100 Wheel Mate™**
- Enables truck technicians to easily remove, install, rotate, and transport single tire-wheel assemblies.
- Internal ratcheting jack with 14 inches of vertical travel—almost a foot higher than conventional dollies.
- U-shaped chassis that provides close, unhindered access to work area.
- A design that accommodates—and securely holds—at almost any truck wheel, including wide-based singles, without restraining chains.
- Heavy-duty ball-bearing wheels mounted under ball-bearing swivel casters for maximum maneuverability.
- Foot-operated wheel lock.
- Rugged structural steel tubing construction that meets the demands of the toughest shop environments.

---

**5105B 1,100 lb. Capacity High-Lift Dual Wheel Dolly**
- Effortless air-powered hydraulic lift system for a variety of applications.
- 0 to 42" lifting range.
- Six-inch lateral adjustment.
- Tilt adjustment of +15° to -8° ensures easy alignment.
- Features four swivel casters, two locking, for enhanced mobility.

---

**5082 Wheel Tipper**
- This heavy-duty wheel tipper makes handling those hard-to-manage truck tires easy. To use the wheel tipper, simply deflate the tire and break the bead, then hook the wheel tipper to the rim of the wheel. The wheel tipper makes an otherwise tough task effortless.
- Designed for both aluminum and steel wheels won’t damage wheel rim.

---

**5170A 1,500 lb. Dual Wheel Dolly**
- Hydraulic jack provides almost 5” of lift and tilts wheel assembly 4° to prevent damage to wheel seal.
- Independent lifting rack provides maximum stability; rollers won’t catch on load.
- Swivel casters for easy maneuverability.
- Floor space is 45” by 41”.
- 6’ chain holds load in place.
- Covered by OTC Lifetime Marathon Warranty®.

---

**1769A Truck Dual Wheel Dolly**
- This 1,500 capacity dolly will remove, transport, and replace dual wheel and tire assemblies without strain or struggle.
- Swivel casters, 3-1/2” front and 3” rear, provide easy maneuverability.
- Floor space is 43” by 42”.
- No. 1769A hydraulic jack provides over 6-1/2” of lift and tilts wheel assembly 7” to prevent damage to wheel seal.
- Includes a 6’ support chain to hold load in place.

---

**FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM**

---

**otctools.com**
**6000 lb. Revolver® Diesel Engine Stand**
- 96-to-1 ratio worm and gear set rotates components 360°; handle locks in any position.
- Integral 12-ton jack raises the work to provide the swing radius needed for clearance.
- Two front wheels and two rear casters provide mobility.
- Universal adapter assembly permits use with a wide variety of mounting plates.
- Covered by OTC Lifetime Warranty®.

**1750A Revolver diesel engine stand with No. 205061 universal engine adapter assembly.**

**1750 Engine stand without universal engine adapter assembly.**

**Revolver® Engine Adapter Plates**
You can order just the plates you need for the engines you work on. The universal adapter assembly is required for mounting all plates to the stand.

### Engine Plates

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205061</td>
<td>Universal Adapter Plate Assembly. Included with 1750A engine stand. (Must be used with all plates below.)</td>
</tr>
<tr>
<td>J-29109-J</td>
<td>Adapter plate to accommodate adapters for Kent-Moore engine stand.</td>
</tr>
</tbody>
</table>

**Detroit Diesel**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>52871*</td>
<td>For coach 6V and 8V series 71 Detroit Diesel.</td>
</tr>
<tr>
<td>218504*</td>
<td>For Detroit series 60 in-line 6-cylinder engines.</td>
</tr>
</tbody>
</table>

**Detroit Allison**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>208160*</td>
<td>Allison transmission mounting plate for transmission Nos. AT500, MT600, MT 6-speed, VH, VS, and VT30.</td>
</tr>
<tr>
<td>61373*</td>
<td>Allison transmission adapter plate for transmission series HT-750, CLBT, HT-740D, CR/DR, and HT-750CT.</td>
</tr>
</tbody>
</table>

**Cummins**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205059*</td>
<td>For Cummins engines: All NH, NTC, NTE, N14 855 series in-line 6 cyl; 378 series V6, 504, 555, &amp; 903 series V8; KT 1150 series in-line 6 cyl; L10.</td>
</tr>
<tr>
<td>61405*</td>
<td>For Cummins L-10 and M11 series engines. Plate attaches to the left side of engine for complete tear down.</td>
</tr>
<tr>
<td>218098</td>
<td>For Cummins “B” series 5.9L in-line 6 cyl. engines.</td>
</tr>
<tr>
<td>218099*</td>
<td>For Cummins “C” series 8.3L in-line 6 cylinder engines.</td>
</tr>
</tbody>
</table>

**Caterpillar**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205060*</td>
<td>For Caterpillar engines: Nos. 1673, 1674, 1693, 3306, &amp; 3406 in-line 6 cyl., Nos. 1100, 3208, and 3408 V8.</td>
</tr>
<tr>
<td>217687*</td>
<td>For Caterpillar 3114, 3116, and 3176 in-line 6 cylinder and C12 engines.</td>
</tr>
</tbody>
</table>

**Mack**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205101*</td>
<td>For Mack engines: All 672, 673, 675, &amp; 711 series in-line 6 cyl.</td>
</tr>
<tr>
<td>206629*</td>
<td>For Mack engines: V8 1000, E6, &amp; E7 in-line 6 cyl.</td>
</tr>
<tr>
<td>528858*</td>
<td>For Mack 865, and 868.</td>
</tr>
</tbody>
</table>

**International Harvester**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>206386*</td>
<td>For International Harvester engines. DT-466 (2004 &amp; Earlier), DT-350, DT408, 7 530 in-line 6 cylinder; DV-550, MV-404, MV-446, V304, V345, V392, 4-152, 4-196, 4-194, 9.0 liter 7 T444E V8, and Ford 6.9L, 7 7.3L DIT.</td>
</tr>
<tr>
<td>528856*</td>
<td>For IH300 &amp; 400 Series.</td>
</tr>
<tr>
<td>528868*</td>
<td>For International VT355.</td>
</tr>
</tbody>
</table>

**Ford**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>61681*</td>
<td>For mounting Ford 6.6L/7.8L engines.</td>
</tr>
<tr>
<td>206386*</td>
<td>For Ford 7.3 engines.</td>
</tr>
</tbody>
</table>

**Volvo**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>528853</td>
<td>For Volvo TD67 and TD71 engines.</td>
</tr>
</tbody>
</table>

**John Deere**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>528859*</td>
<td>For JD 400 and 500 engines.</td>
</tr>
<tr>
<td>528861*</td>
<td>For JD Powertech 4.5L &amp; 6.8L.</td>
</tr>
<tr>
<td>528863*</td>
<td>For JD 8995 V6, must be used with 528859.</td>
</tr>
</tbody>
</table>

*NOTE: Must be used with 205061 univ. adpt. plate assembly. Each engine mounting plate includes all the necessary hardware and an engine application chart.*
**1735B**

*2,000 lb. Capacity Heavy-Duty Motor-Rotor® Repair Stand*

- Handles a wide variety of engines, transmissions, torque converters, and rear axles from trucks, tractors, and construction machinery.
- The 50:1 ratio gearbox allows full rotation of mounted unit with just a turn of the crank and locks in position. Easily maneuvered when loaded.
- To ensure engine stability in all positions, this repair stand is equipped with a positive-crank handle locking mechanism.
- Twin-post design, featuring laterally adjustable, 3 position outboard support; provides an extremely stable work-holding unit.
- Locking rear wheels anchor stand in position.
- Covered by OTC Lifetime Warranty®.

**206391** 6.0L and 6.4L Ford engine adapters
(Works with both the OTC 1735, 1735A and 1735B.)

**206392** Ford 6.7L Engine Adapter for 1735B HD Rotor Repair Stand.

**1726A**

*1,000 lb. Capacity Engine Stand*

- A time saver for passenger car and light truck engine rebuilding or repair.
- Four adjustable attachment arms make engine mounting fast and easy.
- Engine can be rotated a full 360° with a turn of the handle; a locking pin secures the work in any of eight positions.
- Two rear wheels lock tightly to anchor the stand in place.
- Easy one-bolt disassembly for transport of stand.
- Covered by OTC Lifetime Warranty®.

**60796** Drip pan (ABS material) for No. 1726A.

**Engine Support Bars**

Unique, innovative design featuring...

- Cutting edge, design self-centers load to prevent tipping on inclined surfaces.
- Smooth sliding legs adjust easily to different vehicle widths.
- PVC-coated support legs don’t scratch vehicle surfaces.
- “Quick Connect” third-point bar (No.1725) makes setup a snap.
- Spinner handle enables lightning fast adjustment.

**1723**

Engine support bar (2-Point), 500 lb. capacity

**1725**

Engine support bar (3-Point), 700 lb. capacity

**4324**

Engine Support Bar

- 1,100 pound capacity.
- Rubber padded support legs ensure stability during use.
- Tubular steel construction for long life.
- Adjustable width: 57” x 27”.
- Features two hook assemblies for ease of use.
- Includes two 36” chain assemblies.

**1812**

*Load Leveler*

- Improved design over conventional spreader bars.
- Carriage on main support beam moved by turning lead screw; this permits fine adjustment of the tilt angle of component being lifted.
- Turn lead screw manually or with air-powered tools.
- Spreader bar adjustment secured with locking bolts.
- Chain grade is 80.
- Covered by OTC Lifetime Warranty®.

**1822**

*Load Leveler*

Max. lifting capacity: 10,000 lbs.; distance between hooks: min. 36”, max. 56”.

**1812**

Load Leveler

Max. lifting capacity: 6,000 lbs.; distance between hooks: min. 30”, max. 46”.

**60796**

Drip pan (ABS material) for No. 1726A.

**Specifications:**
- Height to center line – 28”
- Length – 46”
- Width – 35-1/2”
- Handle length – 24”

**1822 Load Leveler**

Max. lifting capacity: 10,000 lbs.; distance between hooks: min. 36”, max. 56”.

**1735B with engine**

**1725 with engine**

**1723 with engine**

**1726A with engine**
2,200 and 4,400 lb. Capacity Heavy-Duty Floor Cranes

- To conserve valuable floor space, crane folds into a compact package for storage.
- For “close-in” work, leg spread adjusts to clear vehicle’s wheels, telescoping boom extension gives additional reach. Roller bearing mounted wheels and steering dolly provide ease of mobility.
- A two-speed hydraulic hand pump provides fast boom travel; descent of boom is under precise control of operator.
- Covered by OTC Lifetime Warranty®.

1819 2,200 lb. Capacity Crane. Has hydraulic hand pump and 16-7/8” lifting chain. Has safety hook on end. Use with 1819.


### Specifications

<table>
<thead>
<tr>
<th></th>
<th>1819</th>
<th>1820</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap., boom retracted</td>
<td>2,200</td>
<td>4,400</td>
</tr>
<tr>
<td>Cap., boom extended</td>
<td>1,650</td>
<td>3,300</td>
</tr>
<tr>
<td>A Max. boom height, boom retracted</td>
<td>107°</td>
<td>111°</td>
</tr>
<tr>
<td>B Max. boom height, boom extended</td>
<td>117°</td>
<td>122°</td>
</tr>
<tr>
<td>C Overall height, boom horizontal</td>
<td>80”</td>
<td>82”</td>
</tr>
<tr>
<td>D Overall length</td>
<td>83”</td>
<td>89”</td>
</tr>
<tr>
<td>E Minimum throat width</td>
<td>24”</td>
<td>25”</td>
</tr>
<tr>
<td>F Inside leg length</td>
<td>54”</td>
<td>57-1/2”</td>
</tr>
<tr>
<td>G Effective boom reach (retracted)</td>
<td>33”</td>
<td>35-1/2”</td>
</tr>
<tr>
<td>H Effective boom reach (extended)</td>
<td>48”</td>
<td>50-1/2”</td>
</tr>
<tr>
<td>J Inside leg width (3-position)</td>
<td>24”, 36”</td>
<td>26”, 40”</td>
</tr>
<tr>
<td>K Leg height</td>
<td>8”</td>
<td>9-1/2”</td>
</tr>
<tr>
<td>L Dolly wheel diameter</td>
<td>5”</td>
<td>5”</td>
</tr>
<tr>
<td>M Wheel diameter</td>
<td>6”</td>
<td>8”</td>
</tr>
<tr>
<td>Height, folded</td>
<td>79”</td>
<td>86”</td>
</tr>
<tr>
<td>1819 Floor space folded</td>
<td>27” x 38”</td>
<td></td>
</tr>
<tr>
<td>1820 Floor space folded</td>
<td>31” x 42”</td>
<td></td>
</tr>
</tbody>
</table>

### Boom Capacity (lbs.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Extended 4,000</th>
<th>Centered 5,000</th>
<th>Retracted 6,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Maximum boom height</td>
<td>161-7/8”</td>
<td>150-11/16”</td>
<td>139-1/2”</td>
</tr>
<tr>
<td>B Minimum boom height</td>
<td>6”</td>
<td>17-3/8”</td>
<td>28-3/4”</td>
</tr>
<tr>
<td>C Overall height (boom horizontal)</td>
<td>87”</td>
<td>87”</td>
<td>87”</td>
</tr>
<tr>
<td>D Overall length*</td>
<td>129-1/8”</td>
<td>113-7/8”</td>
<td>98-1/4”</td>
</tr>
<tr>
<td>E Inside leg length</td>
<td>91-11/16”</td>
<td>76-1/8”</td>
<td>43-1/4”</td>
</tr>
<tr>
<td>F Effective boom horizontal reach</td>
<td>94-1/4”</td>
<td>78-3/4”</td>
<td>63-1/4”</td>
</tr>
<tr>
<td>G Outside leg width**</td>
<td>59-3/4”</td>
<td>57-3/4”</td>
<td>55-3/4”</td>
</tr>
<tr>
<td>H Boom swing</td>
<td>36”</td>
<td>31”</td>
<td>26”</td>
</tr>
<tr>
<td>K Leg height</td>
<td>9-1/16”</td>
<td>9-1/16”</td>
<td>9-1/16”</td>
</tr>
<tr>
<td>M Wheel diameter</td>
<td>8”</td>
<td>8”</td>
<td>8”</td>
</tr>
<tr>
<td>Dolly wheel diameter</td>
<td>5”</td>
<td>5”</td>
<td>5”</td>
</tr>
</tbody>
</table>

* Legs in storage position: 80-7/8”
** Legs in storage position: 53-1/2”

6,000 lb. Capacity Heavy-Duty Mobile Floor Cranes

- Three boom positions give capacities of 4,000, 5,000, and 6,000 lbs. to handle the biggest engines, and often the transmission right along with the engine! Usable reach is almost 92”.
- Boom swivels for vertical and lateral positioning; legs extend to straddle the biggest tires.

1814 6,000 lb. capacity crane with electric/ hydraulic pump (115V) with remote motor control.

1813 6,000 lb. capacity crane with two-speed hydraulic hand pump.
2,000 and 4,000 lb. Capacity Folding Floor Cranes
- Both of these cranes fold up for compact storage.
- Front wheels are 5-7/8”; rear casters 3-1/2”.

2002 2,000 lb. capacity crane with a reach of 24” to 36”
2004 4,000 lb. capacity crane with a reach of 26” to 48”

Lifting Chains for Floor Cranes
- For use with floor cranes only; not recommended for overhead hoists or lifts.

38839
1/4” steel chain, 56-1/2” long, 2,000 lb. capacity. Has safety hook on both ends. Use with No. 205049.

38840
5/16” steel chain, 65-3/4” long, 4,000 lb. capacity. Has safety hook on both ends. Use with No. 205050.

31609
1/4” steel chain, 56-1/2” long, 2,000 lb. capacity. With swiveling safety hooks on both ends. Use with No. 1805.

31800
5/16” steel chain, 65-3/4” long, 4,000 lb. capacity. With swiveling safety hooks on both ends. Use with No. 1806.

Alloy Chains for Overhead Lifts and Hoists

302941 5/16” alloy chain, 26-13/16” long, 4,000 lb. capacity. With safety hook on one end. Use with No. 1812.

302249 3/8” alloy chain, 28-5/8” long, 6,000 lb. capacity. With safety hook on one end.

Specifications 2002 2004

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity, boom extended</td>
<td>500 lbs.</td>
<td>1,000 lbs.</td>
</tr>
<tr>
<td>Maximum capacity, boom retracted</td>
<td>2,000 lbs.</td>
<td>4,000 lbs.</td>
</tr>
<tr>
<td>Maximum hook height, boom extended</td>
<td>94”</td>
<td>86-1/2”</td>
</tr>
<tr>
<td>Maximum hook height, boom retracted</td>
<td>87”</td>
<td>72-3/4”</td>
</tr>
<tr>
<td>Effective boom reach, boom extended</td>
<td>36”</td>
<td>48”</td>
</tr>
<tr>
<td>Effective boom reach, boom retracted</td>
<td>24”</td>
<td>26”</td>
</tr>
<tr>
<td>Leg width @ front wheels</td>
<td>25”</td>
<td>32-1/2”</td>
</tr>
<tr>
<td>Leg height</td>
<td>6-1/2”</td>
<td>7-3/4”</td>
</tr>
<tr>
<td>Floor space folded</td>
<td>16” x 17-1/2”</td>
<td>33” x 33-1/2”</td>
</tr>
<tr>
<td>Floor space unfolded</td>
<td>57” x 25”</td>
<td>70” x 33-1/2”</td>
</tr>
</tbody>
</table>

4305 1,500 lb. Capacity Engine Load Leveler
Designed to hook to a crane or hoist to handle and position large, bulky components.
- The horizontal tilt can be adjusted to compensate for off-center loads, or adjusted to a certain angle for a component being positioned.

Heavy-Duty Adjustable Slings
- For lifting and positioning engines, transmissions, etc. Each chain can be adjusted independently for length; plate design enables chain to be “short-hooked” for correct tilt.

302049 2,000 lb. capacity sling with 1/4” chain, 56’ long
302050 4,000 lb. capacity sling with 5/16” chain, 65’ long
38841 Plate only, use with any 1/4” or 5/16” alloy steel chain
1821
10-Ton Capacity, Air-operated Automotive Oil Filter Crusher
• Crushes up to four automotive filters (3-7/8" dia. x 9" high) at one time, in approximately 20 seconds. Engineered and built for dependable operation. Covered by OTC Lifetime Warranty®.
• 100% air operation eliminates electrical connections. Generous size of crushing chamber easily accommodates the largest automotive spin-on filters.
• Includes mounting stand. No wall mounting or time consuming installation required.

1877
25-Ton Capacity Heavy-Duty Oil Filter Crusher
• Handles the big filters (up to 6" dia. and 12-1/2" long) found in trucks, construction equipment, farm implements, etc. May also be used for automotive and light truck filters. It does it all!
• Crushes filters to 1/4 of original size, removing up to 95% of filter’s oil capacity. Automatic cycle feature: load the filter, push a button, and walk away.
• Air/hydraulic pump works on standard shop air (requires 9 CFM at 100 psi). Special valving returns ram automatically at the end of each cycle. No electrical connections needed.
• Built-in floor stand (completely assembled). Whole unit requires just 5 square feet of floor space.
• Covered by OTC Lifetime Warranty®.

1877
25-Ton Capacity Heavy-Duty Oil Filter Crusher
• Automotive and heavy-duty filters up to 15-1/4" long and 6" diameter are crushed in approximately 8 to 16 seconds. Filters are reduced to 20% of original size, with 95% of residual oil removed.
• Automatic cycle feature lets you load the filter, push a button, and walk away.
• Powered by 2 hp electric/hydraulic pump, 230 volt, 20 amp, 60 cycle, single phase, 3,450 rpm. Has a 2-gallon reservoir.
• Built-in, heavy-duty floor stand with leveling pads is designed to accept a 30-gallon drum for oil drainage. Comes assembled. Covered by OTC Lifetime Warranty®.

1896
25-Ton Capacity High-Speed Heavy-Duty/Automotive Oil Filter Crusher
• Automotive and heavy-duty filters up to 15-1/4" long and 6" diameter are crushed in approximately 8 to 16 seconds. Filters are reduced to 20% of original size, with 95% of residual oil removed.
• Automatic cycle feature lets you load the filter, push a button, and walk away.
• Powered by 2 hp electric/hydraulic pump, 230 volt, 20 amp, 60 cycle, single phase, 3,450 rpm. Has a 2-gallon reservoir.
• Built-in, heavy-duty floor stand with leveling pads is designed to accept a 30-gallon drum for oil drainage. Comes assembled. Covered by OTC Lifetime Warranty®.

Transfer Tankers
• Draining oil from a large displacement engine and getting it to your bulk storage container is a snap with OTC’s Transfer Tankers.
• Used oil is collected in a reservoir, and then rolls smoothly on 4" free-wheeling casters to your storage location.
• Pump moves five gallons a minute through the 8-foot transfer hose to the a 15-gallon reservoir.
• Handle is removable for easy storage.
• Screen attached to reservoir allows assembly to be stored on its side.
• Can also be used for transferring antifreeze.

5077A
Low profile Transfer Tanker is only 7-1/2" from floor to top of reservoir. Comes equipped with an electric pump (No. 528093).

5097
Low profile Transfer Tanker is only 7-1/2" from floor to top of reservoir. Comes equipped with a pneumatic pump (No. 529966).
### Hydraulic Bottle Jack Presses

- All bottle jacks have an overload valve built into them.

#### 1823A
- 12-ton capacity press with a OTC bottle jack.
  - Stroke 6-1/4”, 19 pump stroke to extend piston 1 inch.
  - Height with screw extension 19”.

#### 1824A
- 20-ton capacity press with a OTC bottle jack.
  - Stroke 7-1/2”, 30 pump stroke to extend piston 1 inch.
  - Height with screw extension 20-1/2”.

#### 309111
- 20-ton capacity press (frame only).

---

### 5180

#### 10-Ton Portable Hydraulic C-Frame Press

- Weighing less than 28 lbs, this durable press is portable for various applications, i.e., roadside maintenance services, industrial applications, marine, general automotive.
- For clamping, pressing and bending. Ideal for welding and metal fabrication.
- 9” Open-Throat® design.
- Couples to any 4- or 10-ton Porta Power pump.
- The base can be assembled to position the press either vertically or horizontally and can also be mounted to a bench.

Set includes: C-Frame press with base, adapters: V-pushing and ram pushing (9/16” and 3/4” dia. shanks), receiving insert, flat insert, storage case.

---

### 1825

#### 17-1/2 Ton Capacity Heavy-Duty “Open Throat®” Press

- Ram head moves side to side for off-center pressing; ram-to-work distance is adjusted by a forcing screw that is extended or retracted by a speed crank.
- “Open-throat®” frame extensions make handling of bulky jobs possible outside of the press frame.
- This press does not have a lifting mechanism. If a lifting mechanism is needed, order 211407.
- Covered by OTC Lifetime Warranty®.
- Has No. 201832 hydraulic ram with 2” stroke, No. 4002 hydraulic hand pump, No. 9650 gauge, No. 9767 hose, adjusting screw, speed crank, ram cap, and pump mounting bracket.

#### 211407
- 17-1/2 ton winch kit.
### 25-Ton Capacity Heavy-Duty “Open Throat®” Press

- “Open throat®” feature enables ram to be positioned outside of press frame for fast axle bearing removal and installation, as well as other tasks. Rugged press is covered by OTC Lifetime Warranty®.
- Press bed is raised or lowered with a hand crank, and a spring-return hydraulic ram is laterally adjustable for off-center work at full capacity.

**1826**

25-ton press. Includes No. 4016 hydraulic hand pump; No. 52025 hydraulic ram with 14” stroke; No. 9652 gauge; No. 303563 hose (3/8” ID x 8’); and pump mounting bracket.

**1826A**

25-ton press. Includes No. 4020 air/hydraulic pump, equipped the same as 1826.

### 55-Ton Capacity Heavy-Duty Presses

- Side-to-side positioning of ram allows full capacity pressing along entire bolster length without buckling or bending. Covered by OTC Lifetime Warranty®.
- Hydraulic ram features 13’ stroke. Choice of hydraulic power units.

**1845**

55-ton press. Includes double-acting ram No. 51682 with 13” stroke; No. 4046 electric/hydraulic pump; No. 9651 gauge; No. 36887 hoses; and pump mounting bracket.

**1846A**

Same as No. 1845 except has No. 4016 hydraulic hand pump and single-acting ram No. 65458 with 10-1/8” stroke.

**1847**

Same as No. 1845 except has a No. 4022 air/hydraulic pump and a No. 9781 hose (3/8” ID x 10”).

### 55-Ton Capacity Economy Shop Presses

- Wide 10” throat opening between lower bolsters.
- Durable steel frame resists buckling and bending. Covered by OTC Lifetime Warranty®.
- Hand-operated winch and cable mechanism adjusts lower press bolster.

**1850**

55-ton press. Includes No. 52457 hydraulic ram with 6-1/4” stroke; No. 4016 hydraulic hand pump; No. 9651 gauge; No. 9767 hose (1/4” ID x 6’); and pump mounting bracket.

**1851**

55-ton press. Includes No. 52457 hydraulic ram with 6-1/4” stroke; No. 4020 air/hydraulic pump; No. 9651 gauge; No. 9767 hose (1/4” ID x 6’); and pump mounting bracket.

---

*Lateral head movement.*
100-Ton Capacity Economy Shop Press
- Large 35° opening between press uprights allows easy handling of large gears, shafts, sprockets, and other components serviced in truck, construction, and agricultural equipment shops. Covered by OTC Lifetime Warranty®.
- Hand-operated winch and cable mechanism gives operator precise control in adjustment of lower press bolster to any height.

1854
100-ton press. Includes hydraulic ram No. 52434 with 10" stroke; No. 4044 electric/hydraulic pump; No. 9651 gauge; No. 9768 hose (1/4" ID x 8'); and pump mounting bracket.

100-Ton Capacity Heavy-Duty Shop Presses
- Wide open uprights allow easy positioning of bars and shafts for straightening or bending.
- Upper bolster can be lowered for convenient positioning during repetitive jobs.
- Ram head glides smoothly on rollers for easy horizontal adjustments; rugged press frame will withstand a full capacity load with the ram head in any position across the upper bolster.
- Covered by OTC Lifetime Warranty®.

1857
100-ton press. Includes single-acting No. 52434 ram with 10" stroke; No. 9651 gauge; No. 9781 hose (3/8" ID x 10'); and pump mounting bracket.

1858
Same as No. 1857, except has double-acting No. 51683 ram with 13" stroke; No. 61217 3-phase, 220V, 3450 rpm electric/hydraulic pump; and two No. 9769 hoses.

1858-1P
Same as No. 1858, except it has a No. 4064 2-stage, 1-phase hydraulic pump.
Accessories for 150-Ton Capacity Shop Presses

- Accessories attach to ram’s forcing screw or use on press bed.

- Set includes:
  - Bearing pulling attachment
  - Ram pushing adapter with 2" dia. shank
  - Ram pushing adapter with 1-1/4" dia. shank
  - V-pushing adapter
  - 14" long V-blocks (pr.)
  - Ram forcing cap
  - Threaded adapter – for single acting only
  - For 1872 double acting press

Accessories for 100-Ton Capacity Presses

- Adapters and accessories are attached to the ram’s forcing screw or used on press bed to support work.

- Set includes:
  - Bearing pulling attachment
  - Ram pushing adapter with 3/4" dia. shank
  - Ram pushing adapter with 1-1/2" dia. shank
  - V-pushing adapter
  - 11-1/2" long V-blocks (pr.)
  - Ram forcing cap
  - Threaded adapter

Accessories for 55-Ton Press Accessory Set

- Set includes:
  - Bearing pulling attachment
  - Ram pushing adapter with 1" dia. shank
  - Ram pushing adapter with 1-1/4" dia. shank
  - V-pushing adapter
  - 14" long V-blocks (pr.)
  - Ram forcing cap
  - Threaded adapter – for single acting only
  - For 1872 double acting press

Accessories for 10-Ton Capacity Press Accessory Set

- Adapters and accessories are attached to the ram’s forcing screw or used on press bed to support work.

- Set includes:
  - Ram pushing adapter with 1/2" dia. shank
  - Ram pushing adapter with 1-1/2" dia. shank
  - V-pushing adapter
  - V-blocks (pair)
  - Adapter

Accessories for 15-Ton Capacity Press Accessory Set

- Adapters and accessories attach to ram’s forcing screw or are used on press bed to support work.

- Set includes:
  - Bearing pulling attachment
  - Ram pushing adapter with 3/4" dia. shank
  - Ram pushing adapter with 1" dia. shank
  - 11-1/2" long V-blocks (pr.)
  - Ram forcing cap
  - Threaded adapter

Accessories for 25-Ton Capacity Press Accessory Set

- Adapters and accessories attach to ram’s forcing screw or are used on press bed to support work.

- Set includes:
  - Bearing pulling attachment
  - Ram pushing adapter with 3/4" dia. shank
  - Ram pushing adapter with 1" dia. shank
  - 11-1/2" long V-blocks (pr.)
  - Ram forcing cap
  - Threaded adapter
BOTTLE JACKS
SHOP EQUIPMENT

OTC 9300 STINGER SERIES BOTTLE JACKS GIVE YOU LIFTING RANGE FROM 2 TO 50 TONS.
• Forged base and cylinder to ensure strength and eliminate leaks.
• Chromed pump piston and ram for additional rust resistance.
• In-line design for increased ease of use in positioning and operation.
• Includes free seal kit with each unit to extend product life.
• ANSI/PALD compliant.

OTC 9300 Stinger Series Bottle Jacks

<table>
<thead>
<tr>
<th>Cap. (tons)</th>
<th>Stroke</th>
<th>OTC No.</th>
<th>Retracted Height min. (in)</th>
<th>Length of Screw Extension (in)</th>
<th>Height with Screw Extension (in)</th>
<th>Pump Strokes to Extend Piston One Inch</th>
<th>Saddle Dia. (in)</th>
<th>Base Size</th>
<th>Carry Handle</th>
<th>Weight</th>
</tr>
</thead>
</table>
| 2          | 4-5/8" | 9302    | 7"                          | 2-3/8"                         | 14"                              | 8                                    | 13/16"         | N/A       | No           | 5.7 lbs.
| 3          | 4-1/2" | 9303    | 7-1/2"                      | 2-9/16"                        | 14-9/16"                         | 13                                   | 15/16"         | N/A       | No           | 7 lbs.
| 5          | 4-13/16" | 9305   | 7-13/16"                    | 3"                             | 15-5/8"                          | 20                                   | 1-1/8"         | 5-3/16" x 3" | No         | 9 lbs.
| 8          | 4-15/16" | 9308   | 7-13/16"                    | 3"                             | 15-3/4"                          | 21                                   | 1-3/8"         | 6" x 3-9/16" | No           | 13.2 lbs.
| 12         | 6"     | 9312    | 9-3/8"                      | 3-1/4"                         | 18-5/8"                          | 21                                   | 1-3/4"         | 6-9/16" x 4-3/16" | Yes         | 18.9 lbs.
| 12         | 3-11/16" | 9314  | 7-1-1/16"                   | 2-7/8"                         | 13-5/8"                          | 21                                   | 1-3/4"         | 6-9/16" x 4-3/16" | Yes         | 16.1 lbs.
| 20         | 6-7/8" | 9320    | 10-5/8"                     | 2-15/16"                       | 20-7/16"                         | 28                                   | 2-1/8"         | 7" x 4-11/16" | Yes         | 28.6 lbs.
| 20         | 3-7/16" | 9322    | 7-3/16"                     | 1-11/16"                       | 12-5/16"                         | 25                                   | 2-1/8"         | 7" x 4-11/16" | Yes         | 22.5 lbs.
| 30         | 6-5/8" | 9330    | 11"                         | N/A                            | 17-5/8"                          | 41                                   | 2-1/2"         | 7-11/16" x 6" | Yes         | 43.2 lbs.
| 50         | 7-3/16" | 9350    | 11-3/4"                     | N/A                            | 18-15/16"                        | 74                                   | 2-1/2"         | 8-11/16" x 7" | Yes         | 76.5 lbs.

Bottle Jacks
• Base, pressure cylinder, and oil reservoir form one internal part, which results in a stronger jack.
• Piston never contacts cylinder, so pressure will be absorbed and not damage jack if vehicle tilts.
• The No. 5213T is telescopic, allowing for very low initial height with high lifting.

5213A – 12-Ton Bottle Jack.
5221A – 20-Ton Bottle Jack.
5213TA – 12-Ton Telescopic Bottle Jack.

Bottle Jack Dimensions

<table>
<thead>
<tr>
<th>Jack</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>5213A</td>
<td>17-3/4&quot;</td>
<td>8-7/8&quot;</td>
<td>5-1/4&quot;</td>
<td>3-1/2&quot;</td>
<td>–</td>
</tr>
<tr>
<td>5221A</td>
<td>18-1/32&quot;</td>
<td>9-1/4&quot;</td>
<td>8-3/4&quot;</td>
<td>3-5/8&quot;</td>
<td>–</td>
</tr>
<tr>
<td>5213TA</td>
<td>22-5/16&quot;</td>
<td>9-7/8&quot;</td>
<td>–</td>
<td>–</td>
<td>12-7/16&quot;</td>
</tr>
</tbody>
</table>

Air/Hydraulic Bottle Jacks
• Operate manually or pneumatically, 100 PSI minimum air pressure required.

4313C
12-ton air-assist bottle jack; lift range 9-1/2’ to 18-3/8’, stroke 6-1/8”.

4321C
20-ton air-assist bottle jack; lift range 9-7/16’ to 17-11/16”, stroke 5-7/8’.

<table>
<thead>
<tr>
<th>No.</th>
<th>Cap.</th>
<th>Min. Height</th>
<th>Max. Height</th>
<th>Stroke</th>
<th>Screw/Adapter</th>
<th>Air Pressure</th>
<th>Base Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>4313C</td>
<td>12</td>
<td>9-1/2’</td>
<td>18-3/8’</td>
<td>6-1/8’</td>
<td>2-3/4’</td>
<td>6-3/8’ x 7-5/8’</td>
<td>N/A</td>
</tr>
<tr>
<td>4321C</td>
<td>20</td>
<td>9-7/16’</td>
<td>17-11/16”</td>
<td>5-7/8’</td>
<td>2-5/16’</td>
<td>8-1/32’ x 7-1/16”</td>
<td>N/A</td>
</tr>
</tbody>
</table>
COLLISION REPAIR SETS / HYDRAULIC SPREADERS
SHOP EQUIPMENT

1513B – 4-Ton
1515B – 10-Ton

Collision Repair Sets, Stinger Series 4- and 10-Ton
• Very competitively priced, yet high quality sets include single-speed hydraulic hand pump, hose, and ram.
• Components snap together for quick setups to apply pushing, spreading.
• Components include: hydraulic pump, hose, and ram; ram flat base; extension tubes (4); 1/2-ton spreader; tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

1513B 4-ton collision repair set. Has single speed hydraulic hand pump and ram with 4” stroke.
1515B 10-ton collision repair set. Has single speed hydraulic hand pump and ram with 6” stroke.

5086
10-Ton Collision Repair Set
• Exert hydraulic force just where it’s needed to lift, spread, bend, or straighten. Handles the high-force jobs you face daily in trailer maintenance or other applications.
• Includes reliable components including 10-ton, 10-1/8” stroke hydraulic ram; air/hydraulic pumping unit; hydraulic hose; four snap-together extension tubes; extension tube coupling; serrated saddle; flat base; 90° wedge head; flex head; storage case.
• All set components are covered by OTC Lifetime Marathon Warranty®.

Collision Repair Sets, OTC Series 4- and 10-Ton
• We’ve matched our OTC hydraulics with versatile tooling.
• Components snap together, permitting you to apply pushing, spreading.
• Components include: hydraulic pump, hose, and ram; ram flat base; 1/2-ton hydraulic spreader; extension tubes (4); tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

1517B 4-ton collision repair set. Has single speed hydraulic hand pump (4000A) and ram (4082B) with 5” stroke.
1519B 10-ton collision repair set. Has two-speed hydraulic hand pump (4012A) and ram (4083C) with 6-1/8” stroke.
222618 6 ft. hose 1/4” NPT.

Hydraulic Spreaders
Included as standard equipment with our collision sets, these versatile hydraulic spreader tools are also available individually. Ideal for removing dents and creases, performing straightening jobs, or for use as a clamp. Makes working in tight spots easy.
• Maximum spread is 3-1/4”.

9101B 1/2-ton spreader with 1/4” NPT ram half coupler
9102 1/2-ton spreader with 3/8” NPT ram half coupler

1105
1-ton Capacity Hydraulic Spreader
This hydraulic spreader is rated at a full 1-ton capacity at 10,000 PSI and that’s enough for a wide variety of jobs. Working in tight spots is no problem—it needs only a 9/16” clearance to engage the jaws. With a big 4” spread, it’s ready for a variety of applications: straightening work, removing dents and creases from sheet metal, or as a clamp. The device’s spring-return jaws are made of high-strength alloy steel. It can be dead-ended at 4” spread under full load. Ideally suited to work with No. 4012 hand pump (not included).
THE OTC SERIES OF FLOW METERS

Unparalleled accuracy in testing hydraulic oil flow circuits for vehicles and machinery. All are protected by a durable steel case. Pressure accuracy is at +/- 1.6% of full scale. Due to their standard burst disc protection system, overpressure conditions prevent spillage of hydraulic fluid. All devices accommodate bi-directional flow and are CE marked as appropriate.

4277
50 gpm Mechanical Hydraulic Flow Meter
• Flow Accuracy to +/- 4% of full scale
• Measures flow from 4 to 54 gpm
• Pressure up to 6000 psi
• Fluid filled analog gage that dampens vibration
• Temperatures up to 230 deg F
• Reads flow in one direction
• No batteries required
• Port is 1-5/16 - 12 UN JIC Male
• 12.25” x 4.125” x 4.875”
• 14.5 lbs

4278
100 gpm Digital Hydraulic Flow Meter
• Flow Accuracy to +/- 1% of indicated value
• Measures flow from 2.5 to 100 gpm
• Pressure up to 6000 psi
• Digital display for flow, temperature, analog for pressure
• Temperatures up to 250 deg F
• Reads flow in both directions, pressure on the high side of valve
• Requires 1 9V battery (included)
• Port is 1-5/16”-12UN #16 SAE ORB
• 9.45” x 7.87” x 7.87”
• 14 lbs

4285
100 gpm Digital Hydraulic Flow Test Kit
• Includes OTC 4292 Digital Readout and OTC 4291 Flow Block with Loading Valve
• Flow Accuracy to +/- 1% of indicated value
• Measures flow from 2.5 to 100 gpm
• Pressure up to 6000 psi
• Digital display for flow, temperature, analog for pressure
• Reads flow in both directions, pressure on the high side of valve
• Require 1 9V battery (included)
• Port is 1-5/16”-12UN #16 SAE ORB
• 12.99” x 12.4” x 10.24”
• 17lbs
**4290**  
**16 gpm Flow Block**  
- Can be used with Digital Flow Meter Readout OTC 4292 included in OTC 4285 and OTC 4294  
- Port is 1-1/16" -12UN #16 SAE ORB  
- Flow range from 1 to 16 gpm  
- Max pressure 6000 psi

**4291**  
**Flow Block with Loading Valve**  
- Can be used with Digital Flow Meter Readout OTC 4292 included in OTC 4285 and OTC 4294  
- Knob allows for pressure loading/restriction  
- Port is 1-5/16" -12UN #16 SAE ORB  
- Flow range from 2 to 100 gpm  
- Max pressure 6000 psi

**4292**  
**Hydraulic Flow Measurement Digital Readout**  
- For remote flow measurement by using Flow Blocks OTC 4290 or OTC 4291  
- Included in OTC 4285 and OTC 4294  
- Digital display for flow, temperature, analog for pressure

**4294**  
**Deluxe 100 gpm Hydraulic Flow Measurement Set**  
- Comprised of OTC 4290, OTC 4291, OTC 4292, Long Cable and Hose Set and Short Cable  
- Case included

**573295**  
**Long Cable and Hose Set**  
- 20 feet long  
- Flow, Temperature & Pressure

**573296**  
**Short Cable**  
- 6 ½ feet long.  
- Flow & Temperature
Hydraulic Rams for Collision Repair Sets
These premium quality rams are designed for long, trouble-free service. Backed by a lifetime warranty, they are ideal replacements for worn-out, leaky rams. They feature a special piston rod that permits their use with the snap-together components of OTC's collision repair sets, or with most similar competitive products.

4082B
4-ton ram with 5" stroke and special piston rod end designed to fit most collision repair set components.

4083C
10-ton ram with 6-1/8" stroke and special piston rod end designed to fit most collision repair set components.

Specifications

<table>
<thead>
<tr>
<th>4082B</th>
<th>4083B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. height</td>
<td>10-7/8&quot;</td>
</tr>
<tr>
<td>Max. height</td>
<td>15-7/8&quot;</td>
</tr>
<tr>
<td>Spring return</td>
<td>Yes</td>
</tr>
<tr>
<td>Rod end dia.</td>
<td>.86&quot;</td>
</tr>
<tr>
<td>Max. operating Pressure</td>
<td>9,950</td>
</tr>
<tr>
<td>Oil cap. (cu. in.)</td>
<td>4.78</td>
</tr>
<tr>
<td>Oil port</td>
<td>1/4&quot; NPT</td>
</tr>
</tbody>
</table>

4000A
2-Speed Hydraulic Hand Pump
This 2-speed pump is ideal for single-acting rams. Developing up to 10,000 psi operating pressure, the pump operates horizontally or vertically in the “head down” position. Fingertip control provides instant release or pumping action. Has a built-in safety overload valve. Ideal for use with OTC single-acting rams, or similar competitors’ rams.

Specifications

<table>
<thead>
<tr>
<th>4000A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
</tr>
<tr>
<td>Volume per stroke Stage 1</td>
</tr>
<tr>
<td>Volume per stroke Stage 2</td>
</tr>
<tr>
<td>Reservoir capacity</td>
</tr>
<tr>
<td>Oil port</td>
</tr>
</tbody>
</table>

4012A
2-Speed Hydraulic Hand Pump
This 2-speed pump is ideal for single-acting rams. Developing up to 10,000 psi operating pressure, the pump operates horizontally or vertically in the “head down” position. Fingertip control provides instant release or pumping action. Has a built-in safety overload valve. Ideal for use with OTC single-acting rams, or similar competitors’ rams.

Specifications

<table>
<thead>
<tr>
<th>4012A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
</tr>
<tr>
<td>Volume per stroke Stage 1</td>
</tr>
<tr>
<td>Volume per stroke Stage 2</td>
</tr>
<tr>
<td>Reservoir capacity</td>
</tr>
<tr>
<td>Oil port</td>
</tr>
</tbody>
</table>

4004
2-Speed Hydraulic Hand Pump
Use with single-acting hydraulic rams. Rugged all-metal construction. Maximum handle effort is 90 lbs. Two-speed action provides rapid approach of ram piston to the work. An appropriate and economical power source for applications in which 20 cu. in. of usable oil is adequate.

Specifications

<table>
<thead>
<tr>
<th>4004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
</tr>
<tr>
<td>Volume per stroke (first stage)</td>
</tr>
<tr>
<td>Volume per stroke (second stage)</td>
</tr>
<tr>
<td>Reservoir capacity</td>
</tr>
<tr>
<td>Oil port</td>
</tr>
</tbody>
</table>

Hydraulic Rams for Collision Repair Sets
These premium quality rams are designed for long, trouble-free service. Backed by a two-year warranty, they feature a special piston rod that permits their use with the snap-together components of OTC Stinger’s new collision repair sets, or with most similar competitive products.

9104B
4-ton ram with 4" stroke and special piston rod end designed to fit most collision repair set components.

9110B
10-ton ram with 6" stroke and special piston rod end designed to fit most collision repair set components.

Specifications

<table>
<thead>
<tr>
<th>9104B</th>
<th>9110B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. height</td>
<td>10-3/8&quot;</td>
</tr>
<tr>
<td>Max. height</td>
<td>14-3/8&quot;</td>
</tr>
<tr>
<td>Spring return</td>
<td>Yes</td>
</tr>
<tr>
<td>Rod end dia.</td>
<td>.874&quot;</td>
</tr>
<tr>
<td>Max. operating Pressure</td>
<td>8,950</td>
</tr>
<tr>
<td>Oil cap. (cu. in.)</td>
<td>4.97</td>
</tr>
<tr>
<td>Oil port</td>
<td>1/4&quot; NPT</td>
</tr>
</tbody>
</table>

9106B
Hand pump only.

9107B
Hand pump only.

Single-Speed Hydraulic Hand Pumps
These single-speed pumps are ideal for single-acting rams. Developing up to 10,000 psi operating pressure, the pumps operate horizontally or vertically in the “head down” position. Fingertip control provides instant release or pumping action. Has a built-in safety overload valve. Ideal for use with OTC Stinger single-acting rams, or similar competitive rams.

Specifications

<table>
<thead>
<tr>
<th>9106B</th>
<th>9107B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
<td>10,000 psi</td>
</tr>
<tr>
<td>Volume per stroke</td>
<td>0.17 cu. in.</td>
</tr>
<tr>
<td>Reservoir capacity</td>
<td>18 cu. in.</td>
</tr>
<tr>
<td>Oil port</td>
<td>1/4&quot; NPT</td>
</tr>
</tbody>
</table>
4026
Air/Hydraulic Power Unit
Features a heavy-duty, one-piece, aluminum body for durability and light weight. A perfect replacement pump for body and frame straightening equipment. Performs in either vertical or horizontal positions. Has a time-tested motor design. All internal moving parts are constructed of metal, not plastic! Unique external relief valve ensures damage-free operation should oil reservoir be overfilled. Internal vent eliminates external oil leakage. Rotary-style pressure release provides superior operator control. Carries OTC’s unsurpassed Lifetime Warranty®.

Specifications 4026
- Oil delivery: 10 cu. in. of oil @ 9,500 psi
- Reservoir capacity: 39 cu. in. (34 cu. in. usable)
- Internal relief setting: 10,000 PSI
- Air operating pressure: 40-120 PSI
- Dimensions: 16-15/16" L x 6-3/8" H x 5-5/8" W

OTC Single Acting Cylinder Rams

<table>
<thead>
<tr>
<th>Capacity in Tons</th>
<th>Stroke</th>
<th>Height Collapsed</th>
<th>Height Extended</th>
<th>Oil Capacity (cu. in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4100A 5-Ton Single Acting Ram</td>
<td>5</td>
<td>3&quot;</td>
<td>5-11/16&quot;</td>
<td>8-11/16&quot;</td>
</tr>
<tr>
<td>4101A 5-Ton Single Acting Ram</td>
<td>5</td>
<td>5-1/4&quot;</td>
<td>10-7/16&quot;</td>
<td>15-11/16&quot;</td>
</tr>
<tr>
<td>4103A 10-Ton Single Acting Ram</td>
<td>10</td>
<td>2-1/8&quot;</td>
<td>5-9/16&quot;</td>
<td>7-11/16&quot;</td>
</tr>
<tr>
<td>4104A 10-Ton Single Acting Ram</td>
<td>10</td>
<td>6-1/8&quot;</td>
<td>11-1/2&quot;</td>
<td>17-5/8&quot;</td>
</tr>
<tr>
<td>4105A 10-Ton Single Acting Ram</td>
<td>10</td>
<td>10-1/8&quot;</td>
<td>15-1/2&quot;</td>
<td>25-5/8&quot;</td>
</tr>
<tr>
<td>4106A 25-Ton Single Acting Ram</td>
<td>25</td>
<td>6-1/4&quot;</td>
<td>13-3/8&quot;</td>
<td>19-5/8&quot;</td>
</tr>
<tr>
<td>4107A 25-Ton Single Acting Ram</td>
<td>25</td>
<td>14-1/4&quot;</td>
<td>21-3/8&quot;</td>
<td>35-5/8&quot;</td>
</tr>
<tr>
<td>4108A 5-Ton LP Single Acting Ram</td>
<td>5</td>
<td>9/16&quot;</td>
<td>1-5/8&quot;</td>
<td>2-3/16&quot;</td>
</tr>
<tr>
<td>4110A 55-Ton Single Acting Ram</td>
<td>55</td>
<td>6-1/4&quot;</td>
<td>11&quot;</td>
<td>17-5/16&quot;</td>
</tr>
</tbody>
</table>

55- and 100-Ton Aluminum Rams
Get the strength of a steel ram but about half the weight. Easily carry these single-acting, spring-return rams around the garage, shop, or into the field for on-the-vehicle repairs. They are ideal for truck axle correction, trailer frame straightening, general vehicle maintenance, and heavy-duty lifting.

4111 55-ton aluminum ram 6-1/8" stroke.
4116 100-ton aluminum ram 6-1/4" stroke.

208406 Ram base. Attaches directly to bottom of ram by means of two 3/8"–16 screws, included. Serrated base provides extra support and stability. 7" square. For use on 55-ton ram only.

Single-Acting Ram Accessories
These versatile attachments let you “harness” OTC hydraulic force and put it to work exactly where it’s needed to handle various maintenance tasks. Accessories thread onto the ram’s piston rod end or into the ram base. Use with 10-ton rams, Nos. 4103A, 4104A and 4105A.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 32325</td>
<td>*Ram flat base</td>
</tr>
<tr>
<td>B 31772</td>
<td>Serrated saddle</td>
</tr>
<tr>
<td>C 24016</td>
<td>Smooth saddle</td>
</tr>
<tr>
<td>D 25664</td>
<td>*Threaded tube coupling</td>
</tr>
<tr>
<td>E 38909</td>
<td>10&quot; Extension tube</td>
</tr>
</tbody>
</table>

* NOTE: 32325 and 25664 cannot be used on No. 4103 hydraulic ram. Use with 25-ton hydraulic rams, Nos. 4106A and 4107A.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 25653</td>
<td>Ram flat base</td>
</tr>
<tr>
<td>G 31776</td>
<td>Serrated saddle with coupling</td>
</tr>
</tbody>
</table>
**Spring-Return Hollow Center Hydraulic Rams**

Hydraulic Twin Rams have been engineered for increased strength and durability and meets the ASME B30.1 standards. A center-hole design is ideal for push/pull applications while allowing for the extension of cables, screws or wires through the cylinder. Tapped base mounting holes allow for easy installation in fixed applications. Made in USA.

---

**Hollow Center Hydraulic Rams**

Center-hole rams are ideal for jobs that require a great deal of force and a relatively short stroke. Compared to the force it develops, the ram is lightweight, compact, and easy to handle, permitting its use in confined quarters. Center-hole feature allows extending jacking screws, cables, puller screws and more to be inserted through the ram.

- Engineered for increased strength and durability and meets the ASME B30.1 standards
- For use with Grip-O-Matic® pullers, push-pullers and shop presses

| Cylinder Cap. (Tons) | Stroke (in.) | OTC No. | OT No. | Re-tracted Height (in.) | Extended Height (in.) | Outside Dia. (in.) | Center Hole Dia. (in.) | Piston Rod Dia. (in.) | Insert Between Base Holes (in.) | Collar Thread Size (in.) | Thread Length (in.) | Oil Cap. (cu. in.) | Int. Press. at Cap. (PSI) | Base to Inlet Port (in.) | Mounting Holes (in.) | Base Cyl. Eff. Area (sq. in.) | Prod. Wt. (lbs.) |
|----------------------|-------------|---------|--------|-------------------------|-----------------------|-------------------|----------------------|-------------------|-------------------------------|------------------------|------------------|----------------|--------------------------|------------------------|----------------|--------------------------|----------------------|---------------------|
| 10                   | 2-1/2       | 4131A   | 4131A  | 5-5/8                   | 8-1/8                 | 3-3/16            | 1-1/2               | 3/4               | 2-3/8                         | 3/4                    | 1-3/4 - 12        | 5.53            | 10,000                   | 2 x 1/4-10             | 2.21             | 11.0                     |
| 20                   | 3           | 4132A   | 4132A  | 6                        | 9-7/32                | 4                 | 2                  | 1                 | 3-1/4                         | 1                      | None             | 11.76           | 10,000                   | 3/8-16                 | 4.72             | 18.5                     |
| 30                   | 2-1/2       | 4139    | 4139   | 6-1/4                   | 8-3/4                 | 4-3/4             | 3-1/4               | 1-19/64 | 3-5/8                         | 2-3/4-12               | 4-3/4-12          | 15.85           | 9,457                    | 7/16-20                | 6.34             | 25.6                     |
| 60                   | 6           | 4140A   | 4140A  | 12-3/4                 | 18-3/4                | 6-1/2             | 2-3/4               | 1-5/8             | 5-1/8                         | 3-12                   | 6-1/4-12          | 76.38            | 10,000                   | 1/2-13                 | 12.31            | 86.5                     |

---

**Head Inserts**

<table>
<thead>
<tr>
<th>For Use With</th>
<th>Threaded Insert No.</th>
<th>Inside Dia. of Plain insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>4131A</td>
<td>28632</td>
<td>3/4 – 16 **</td>
</tr>
<tr>
<td>4132A</td>
<td>28612</td>
<td>1” – 8 **</td>
</tr>
<tr>
<td>4139</td>
<td>38904</td>
<td>1-1/4 – 7 **</td>
</tr>
<tr>
<td>4140A</td>
<td>3425L</td>
<td>1-5/8 – 5-1/2 **</td>
</tr>
</tbody>
</table>

* Plain insert comes standard with rams.
** Internal thread size.

---

**Hollow Center Hydraulic Rams**

- Single acting ram
- Double acting hydraulic ram

**Capacity in Tons**

- 17-1/2
- 2
- 30
- 50
- 100

**Stroke**

- 2" (5-1/2"
- 2-1/2"
- 3"
- 4-7/8"

**Height Collapsed (in.)**

- 5-1/2"
- 7-3/4"
- 10-1/4"
- 15-1/8"

**Height Extended (in.)**

- 7-1/2"
- 10-1/4"
- 13-1/4"
- 15-1/8"

**Adapter Plate**

- yes
- –
- yes
- yes
- –

**Eff. Ram Area (sq. in.)**

- 3-1/2
- 3-1/2
- 6-1/8
- 9-3/4
- 9-3/4
- 19-1/4*

**Oil Capacity (cu. in.)**

- 7.01
- 7.01
- 15.45
- 15.45
- 29.19
- 93.8

* Push side only
"Shorty" Rams, Single-Acting, Spring-Return

Forcing a gravity return ram to retract wastes both time and money. This OTC series of single-acting, spring-return rams eliminates that waiting. With their low collapsed height and the stroke you really need, these rams are ideal for a variety of applications. You can choose from capacities of 10 to 100 tons and strokes from 1-1/2" to 2-7/16", with the largest ram being only 7-3/4" high! Bronze-plated piston rods resist scoring, and each ram can be “dead-ended” at full capacity for maximum safety. Each "Shorty" ram has an angled coupler port (5°) for easy hook-up. So, if you’re tired of waiting for your rams to retract, these OTC "Shorty" rams are just the answer to your problems!
**4175 “Shorty” Ram and Pump Set**
- Shorty rams provide lifting or pushing force in limited working space. Visual centering of load is simplified by a concentric ring pattern on piston top.
- Single-acting, spring-return.
- Two-speed hand pump gives fast piston approach. (See chart below for specifications.)
- Set includes 4143 30-ton, 2-7/16” stroke single-acting spring-return hydraulic ram; 4016 pump; 9767 hose; and 9798 hose half coupler.

**4180 Power Twin Ram and Pump Set**
- Center-hole feature permits extending adjusting screws, cables, puller screws, etc., straight through the ram.
- This spring return unit is compact and lightweight.
- Ideal for jobs having restricted working space.
- Set includes 4120 17-1/2 ton, 2” stroke single-acting hydraulic ram; 4002 pump; 9650 gauge; 24815 tee; 9767 hose; and 9798 hose half coupler.

---

**OTC Set Specifications**

<table>
<thead>
<tr>
<th>OTC Set No.</th>
<th>Capacity (tons)</th>
<th>Ram Stroke</th>
<th>Ram Collapsed Height</th>
<th>Strokes to Obtain Full Ram Stroke</th>
<th>Pump Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>4175</td>
<td>30</td>
<td>2-7/16”</td>
<td>4-5/8”</td>
<td>55*</td>
<td>Two</td>
</tr>
</tbody>
</table>

* Based on 50% of the stroke being made in low-pressure stage, 50% in high-pressure stage.

**Dualmaster Jr. Two-Stage Hand Pumps**
Here’s two-stage flexibility at a popular price! These pumps have extra-large reservoirs (125 cu. in. usable oil) and permit use with large hydraulic rams or in multiple small ram applications. Compact and lightweight, Dualmaster Jr. provides maximum flexibility with minimum effort in a portable pump. The 4016 and 4017 deliver… providing high oil volume (2.6 cu. in. per stroke) for rapid ram approach and return. Then they automatically switch at 300 PSI to the high pressure, low volume stage. Piston stroke is 3/4”, maximum handle effort is 130 lbs. at 10,000 PSI. The 4016 is equipped with a 2-way valve for use with single-acting rams. The 4017 has a 4-way valve for use with double-acting rams. Two versatile hydraulic pumps…dependable power for automotive, heavy-duty truck, agricultural, and construction maintenance needs.

**4016**
- Pump with a 2-way valve for use with single-acting rams. Delivers 2.6 cu. in. of oil per stroke in low pressure stage.

**4017**
- Pump with a 4-way valve for use with double-acting rams. Delivers 2.6 cu. in. of oil per stroke in low pressure stage.

**4016 and 4017 Specifications:**
- Maximum Operating pressure – 1st- 300 psi / 2nd-10,000 psi
- Volume per stroke – 1st- 2.6 cu. in. / 2nd-1.6 cu. in.
- Piston dia. – 1st- 2” / 2nd-1/2”
- Piston stroke – 3/4”
- Reservoir capacity – 125 cu. in. usable
- Oil port – 3/8” NPT
Dualmaster® Two-Stage Hand Pumps

Our finest hand-operated power units! These fast acting, two-stage pumps not only handle high force, high pressure requirements up to 10,000 PSI, but deliver extremely high volume at low pressure (7.35 cu. in. per stroke from 0 to 200 PSI) to quickly move the ram piston to and from the work! Pumps have a built-in relief valve, pre set at the factory for 10,000 PSI. Maximum handle effort is 90 lbs. Two basic Dualmaster models are offered: No. 4008 for use with single-acting rams, and No. 4009 for use with double acting rams. For information on pressure gauges, hoses, and other accessories for your Dualmaster, see pages 233 and 234.

### Performance Example

**Dualmaster® Two-Stage Hand Pumps**

**Air / Hydraulic Pump**
With shop air as the energy source, these pumps have the power and oil capacity (80 cu. in. usable oil) to drive even the large 55-ton rams. They are ideal all-around power sources for dozens of body, frame, and alignment applications. They can be used with a variety of rams, presses, and hydraulic pullers operating at up to 10,000 PSI. An internal relief valve protects the hydraulic components regardless of hydraulic pressure. In addition, a two-stage release mechanism gives fast or metered ram return while reducing hydraulic shock. In addition to all the features and performance characteristics of the 4020/4025, the 4021 is equipped with a 15 ft. remote control cord. The 4022 is equipped with a 2-gal. reservoir. These pumps require 9 cfm at 100 PSI air pressure at the pump.

- **4020** Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 98 cu. in. usable oil capacity in plastic reservoir.
- **4021** Air/hydraulic pump with a remote control actuator, 15 ft. cord. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 105 cu. in. capacity plastic reservoir.
- **4022** Air/hydraulic pump with a 2-gallon (442 cu. in.) plastic reservoir.
- **4025** Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 98 cu. in. usable oil capacity in metal reservoir.
- **213896** Metal reservoir. 98 cu. in. usable oil capacity. Includes gasket and fasteners.
- **61243** Replacement plastic reservoir for 4020 pump, 98 cu. in. usable oil capacity.
- **33853** Replacement gasket for 4020 pump reservoir
- **300871** Repair kit for 4020 pump

**Performance Example**

**Job: To fully extend an OTC 4105 ram (has 10-1/8” stroke)**

- **4008/4009 Pump**
  - 37 strokes
- **4016 Pump**
  - 74 strokes
- **4002 Pump**
  - 141 strokes

**Performance at 100 PSI**

**Hydraulic Pressure* Oil Delivery**

- 0 PSI: 59 cu. in./min.
- 5,000 PSI: 30 cu. in./min.
- 10,000 PSI: 4 cu. in./min.

* Oil delivery based on 20 cfm air supply at the pump.

**Pump and valving mount on common cover plate; permits use on other than standard OTC reservoirs.**

**4008** Hydraulic hand pump with No. 9584 2-position, 3-way control valve (for operating single-acting rams), and No. 4006 BL2 2-gallon reservoir with legs.

**4009** Hydraulic hand pump with No. 9500 3-position, 4-way control valve (for operating double-acting rams), and No. 4006 BL2 2-gallon reservoir with legs.

**4020** Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 98 cu. in. usable oil capacity in plastic reservoir.

**4021** Air/hydraulic pump with a remote control actuator, 15 ft. cord. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 105 cu. in. capacity plastic reservoir.

**4022** Air/hydraulic pump with a 2-gallon (442 cu. in.) plastic reservoir.

**4025** Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8” NPTF oil port. 98 cu. in. usable oil capacity in metal reservoir.

**213896** Metal reservoir. 98 cu. in. usable oil capacity. Includes gasket and fasteners.

**61243** Replacement plastic reservoir for 4020 pump, 98 cu. in. usable oil capacity.

**33853** Replacement gasket for 4020 pump reservoir

**300871** Repair kit for 4020 pump

**538592** Seal kit for 2510A

**FOR PRODUCT VIDEOS VISIT OTCTOOLS.COM**

**otctools.com**
**Vanguard® Two-Stage, High-Pressure Power Units**

Thousands of users have put Vanguard to work in a variety of hydraulic power applications. And the reputation for trouble-free performance this pumping unit has earned is a proven, documented fact, not just a sales claim! Vanguard is a fast-acting, precision-built, two-stage pumping unit consisting of a gear pump for the low-pressure stage and an axial-piston pump for the high-pressure stage, the latter being “supercharged” by the gear pump. Vanguard delivers low volume at high pressure, yet provides high volume at low pressure for fast cylinder piston approach and return. Units feature a 10,000 PSI universal motor, which starts under full load. They are suitable for operation up to 10,000 PSI. Motor is 1-1/8 h.p., 12,000 RPM, (27 amp draw). Rated for intermittent duty.

**4062**
Vanguard 2-stage hydraulic pump with 2-position/3-way valve and 6 ft. remote motor control (115V). 2 gal. of oil supplied.

**4064**
Vanguard 2-stage hydraulic pump with 3-position/4-way valve and 6 ft. remote motor control (115V). 2 gal. of oil supplied.

**Speed Comparison Chart**
The job — Fully extend a 10-ton ram with a 10-1/8” stroke:

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>5” travel No load</th>
<th>5” travel Under load</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>4062 Power</td>
<td>1.5 sec.</td>
<td>12 sec.</td>
<td>13.5 sec.</td>
</tr>
<tr>
<td>4012A Hand Pump</td>
<td>141 strokes of pump handle</td>
<td></td>
<td>4 to 5 min.*</td>
</tr>
</tbody>
</table>

* Handle effort at max. pressure is 140 lbs.

**Performance Oil Delivery**

<table>
<thead>
<tr>
<th>Pressure</th>
<th>100 PSI</th>
<th>1,000 PSI</th>
<th>5,000 PSI</th>
<th>10,000 PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Delivery</td>
<td>650 cu. in./min.</td>
<td>80 cu. in./min.</td>
<td>70 cu. in./min.</td>
<td>55 cu. in./min.</td>
</tr>
</tbody>
</table>

**Specifications**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-1/4”</td>
<td>12-1/2’”</td>
<td>10-1/2”</td>
<td>7”</td>
<td>10”</td>
<td>8”</td>
</tr>
</tbody>
</table>

**61217 Electric Pump**

- 10,000 PSI max. pressure output
- 3,450 RPM
- 3 PH, 230V/60HZ
- Hose port; 3/8 NPT
- Gauge port; 1/4 NPT
- Useable reservoir 462 sq. in.
- 4-way/3 position solenoid valve
- Valve function; advance, hold, return
- Weight 52.9 lbs.

**207436**
2-gallon reservoir kit for 4020, 4021, or 4025 air/hydraulic pumps.

**40063BL2**
2-gallon (462 cu. in. usable) “standard” reservoir only for Vanguard® pumps.

Size: 12-1/2” x 10-1/2” x 6-1/2” high.
Two-Stage Electric / Hydraulic Pumps

They’re called “RamRunners” and that’s just what they do...run large single- or double-acting rams for fast frame straightening, wheel alignment, etc. They deliver up to 45 cu. in./min. at max. operating pressure of 10,000 PSI. The 4044 has a 2-position/2-way valve with “advance” and “return” positions and is for use with single-acting rams. The 4046 and 4057 have a 3-position/4-way valve with “advance,” “hold,” and “return” positions; for use with double-acting or multiple single-acting rams. Nos. 4044 and 4046 are equipped with a 1/2 h.p. single-phase, 60 Hz, 115 volt thermal protected electric motor and are designed to start under load. No. 4057 has a 1-1/2 h.p. electric motor. The RamRunners also feature a 6 ft. remote control cord for “on/off” control. One gallon and two quarts of oil are supplied.

4044
RamRunner two-stage hyd. pump with 2-position/2-way manual valve and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil.

4046
RamRunner two-stage hydraulic pump with 3-position/4-way manual valve for double-acting rams, and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil.

4057
RamRunner two-stage hydraulic pump with 3-position/4-way valve for double-acting rams, and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil.

Speed Comparison Chart
The job — Fully extend a 10-ton ram with a 10” stroke:

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>5” travel No Load</th>
<th>5” travel Under Load</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>4044 / 4046</td>
<td>3 sec.</td>
<td>39 sec.</td>
<td>42 sec.</td>
</tr>
<tr>
<td>4057</td>
<td>1.2 sec.</td>
<td>14 sec.</td>
<td>15.2 sec.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>Max. Press. Output</th>
<th>RPM</th>
<th>0 PSI</th>
<th>100 PSI</th>
<th>10,000 PSI</th>
<th>Voltage</th>
<th>Oil Del.* (cu. in./min. @)</th>
<th>Reservoir</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>4044 / 4046</td>
<td>10,000 psi</td>
<td>3,450</td>
<td>290</td>
<td>240</td>
<td>17</td>
<td>1/2 h.p., 115 volt**</td>
<td>1.9 gal.</td>
<td>295 cu. in.</td>
<td>18-1/2”</td>
<td>7”</td>
<td>11-3/8”</td>
<td>7-1/8”</td>
<td>14-7/8”</td>
<td>9-1/4”</td>
<td>5-1/8”</td>
</tr>
<tr>
<td>4057</td>
<td>10,000 psi</td>
<td>3,450</td>
<td>525</td>
<td>490</td>
<td>45</td>
<td>1-1/2 h.p., 115 volt**</td>
<td>1.9 gal.</td>
<td>315 cu. in.</td>
<td>20”</td>
<td>7”</td>
<td>11-3/8”</td>
<td>7-1/8”</td>
<td>14-7/8”</td>
<td>9-1/4”</td>
<td>5-1/8”</td>
</tr>
</tbody>
</table>

* Typical delivery, actual flow will vary with field conditions. ** For 230 volt, please specify.

OTC’S CONTROL VALVES WORK IN A VARIETY OF AUTOMOTIVE AND INDUSTRIAL APPLICATIONS.

Control Valves

9582
This is a 2-position/3-way, lever operated, detent positioned valve for use with single-acting rams. It has “advance” and “hold” positions.

9500
A 3-position/4-way, lever operated, detent positioned valve for use with double-acting rams. Has “advance,” “neutral,” and “return” positions. Cylinder ports are blocked in “neutral” and pump flow is directed back to the reservoir.
Vanguard Jr.® Two-Stage, High-Pressure Power Units

Combines compact size and light weight with 2-stage high performance. Choose from several models with electric motors and many options. Designed for operating pressures up to 10,000 PSI. Vanguard Jr. gives you just what you need: 2-stage flexibility with high performance, and a selection of units and options that lets you tailor the pump to your needs. Refer to the performance and speed tables below, and you’ll see how these pumps cut down the time needed for almost any job. The 2-stage operation automatically matches pump performance to the job requirements. The low-pressure, high-volume stage provides fast ram approach and return. Then at approximately 200 PSI, the high-pressure, low-volume stage takes over to handle high force requirements. These pumps are ideal for hundreds of hydraulic applications such as clamping, bending, straightening, pressing, forming, testing, pushing, and pulling. Each is equipped with a relief valve factory-set at 10,000 PSI (the maximum operating pressure of the pump). Choose from models with electric (115 or 220 volt) motors and options that include remote hand- and foot-operated motor controls, adjustable pressure regulator, and pressure switch. Vanguard Jr. starts easily under load and has been thoroughly field-tested for high cycle reliability.

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>For use with</th>
<th>Control Valve</th>
<th>Reservoir</th>
<th>Motor Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>4031</td>
<td>Single-acting rams</td>
<td>2-position</td>
<td>45 gallon, 104 cu. in.</td>
<td>Remote 6 ft. cord</td>
</tr>
</tbody>
</table>
| 4002     | Hand pump | 141 strokes of pump handle | 4 to 5 min. | * *

* Handle effort at max. pressure is 140 lbs.

Universal Motor Version and Large Reservoir Models

These all have a 10,000 PSI pump and universal motor: 1/2 h.p., 1,200 RPM, 115 or 230 volt (specify), 60/50 cycle A.C. single phase. No. 4036 has an extra-large 2-gallon (462 cu. in.) reservoir to permit full stroke of large displacement rams. Also suited for applications where several rams are used.

Speed Comparison Chart

The job — Fully extend a 10-ton ram with a 10-1/8” stroke:

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>5” travel No Load</th>
<th>5” travel Under Load</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>4031</td>
<td>4 sec.</td>
<td>34 sec.</td>
<td>38 sec.</td>
</tr>
</tbody>
</table>

Note: Dimensions shown apply to pumps with 104 cu. in. reservoir.

Universal Motor Version

THOUSANDS OF USER’S HAVE PUT VANGUARD JR. PUMPS TO WORK IN A VARIETY OF HYDRAULIC POWER APPLICATIONS.
## Pressure Regulator/Check Valves and Accessories

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9623</td>
<td>Pressure regulator valve. For remote location in a hydraulic system. Adjusts from 1,000 to 10,000 PSI.</td>
</tr>
<tr>
<td>9575</td>
<td>Needle valve for fine metering. Use several for controlling multiple single-acting rams simultaneously, yet independently. 3/8” NPTF ports.</td>
</tr>
<tr>
<td>9596</td>
<td>Load lowering valve. 3/8” NPTF ports, 10,000 PSI max. operating pressure.</td>
</tr>
<tr>
<td>7312</td>
<td>O-ring/oil seal pick. An extremely handy little tool! Makes removal and installation of oil seals and o-rings a snap. Pick has a metal shaft.</td>
</tr>
<tr>
<td>10461</td>
<td>Remote control foot switch, 10 ft. cord. Press for “on,” release for “off.”</td>
</tr>
<tr>
<td>25017</td>
<td>Remote control hand switch, 10 ft. cord. Press for “on,” release for “off.” (Replacement rocker switch only, No. 16772)</td>
</tr>
<tr>
<td>9625</td>
<td>Pressure switch. 1/4” NPTF external thread.</td>
</tr>
</tbody>
</table>

### Gauges - All gauges have 1/4” NPTF threads

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9650</td>
<td>Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-17-1/2-ton, 0-30 ton, and 0-50 ton. 3-1/2” dia. face (Dry)</td>
</tr>
<tr>
<td>9651</td>
<td>Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-55 ton, 0-75 ton, and 0-100 ton. 3-1/2” dia. face (Dry).</td>
</tr>
<tr>
<td>9652</td>
<td>Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-5 ton, 0-10 ton, and 0-25 ton. 3-1/2” dia. face (Dry).</td>
</tr>
<tr>
<td>9653</td>
<td>Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 3-1/2” dia. face. Use with any OTC pump or ram (Dry).</td>
</tr>
<tr>
<td>9654</td>
<td>Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 2-1/2” dia. face. Use with any OTC pump (Dry).</td>
</tr>
<tr>
<td>9655</td>
<td>Pressure gauge. One scale: 0-6,000 PSI. 3-1/2” dia. face (Dry).</td>
</tr>
<tr>
<td>9658</td>
<td>Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 2-1/2” dia. face. Gauge is filled with glycerin or silicone to dampen vibration and fluid pulsation. Use with any OTC pump or ram.</td>
</tr>
<tr>
<td>9659</td>
<td>Pressure gauge. Same as 9658 except is liquid filled and has 3-1/2” diameter face.</td>
</tr>
</tbody>
</table>

### Adapters and Fittings

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>24815</td>
<td>Tee adapter. For installing gauge between pump and hose coupling. Has 1/4” and 3/8” NPTF internal and 3/8” NPTF external.</td>
</tr>
<tr>
<td>25919</td>
<td>Double tee adapter. Permits use of more than one ram in series with one pump. Three 3/8” NPTF ports.</td>
</tr>
<tr>
<td>9617</td>
<td>Manifold block. For use when a multiple-ram system is required. Has six 3/8” NPTF ports.</td>
</tr>
<tr>
<td>9691</td>
<td>“Y” manifold. Useful when connecting two rams to a single line. Three 3/8” NPTF ports.</td>
</tr>
<tr>
<td>10645</td>
<td>45° fitting. Used when mounting gauge at an angle on connection such as 24815. External and internal 1/4” NPTF ends.</td>
</tr>
<tr>
<td>10469</td>
<td>Swivel connector. 3/8” NPTF external, 3/8” NPSM internal.</td>
</tr>
<tr>
<td>10682</td>
<td>Coupling. Both ends 3/8” NPTF internal.</td>
</tr>
<tr>
<td>10474</td>
<td>Street elbow. Internal and external 3/8” NPTF ends.</td>
</tr>
<tr>
<td>10673</td>
<td>Short nipple. 1-1/2” long, 3/8” NPTF external ends.</td>
</tr>
<tr>
<td>13828</td>
<td>Long nipple. 2” long, 3/8” NPTF external ends.</td>
</tr>
<tr>
<td>10647</td>
<td>90° elbow. 3/8” NPTF internal ends.</td>
</tr>
<tr>
<td>13888</td>
<td>Coupling. Ends – 3/8” NPTF internal and 1/2” NPTF external.</td>
</tr>
</tbody>
</table>

### Quick Couplers Precision built and designed for high pressure. Permits disconnecting hose without loss of oil.

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9795</td>
<td>Complete quick coupler and rubber dust cap. 3/8” NPTF</td>
</tr>
<tr>
<td>9796</td>
<td>Ram half coupler and rubber dust cap. 3/8” NPTF</td>
</tr>
<tr>
<td>9797</td>
<td>Ram half coupler steel dust cap only. 3/8” NPTF</td>
</tr>
<tr>
<td>9798</td>
<td>Hose half coupler only. 3/8” NPTF</td>
</tr>
<tr>
<td>9799</td>
<td>Hose half coupler steel dust cap only. 3/8” NPTF</td>
</tr>
<tr>
<td>9866</td>
<td>Hose or ram rubber half cap. 3/8” NPTF</td>
</tr>
<tr>
<td>9195A</td>
<td>1/4” automotive coupler</td>
</tr>
</tbody>
</table>
Hydraulic Oil
Ensure dependable performance of rams and pumps by using this high-grade, specially prepared oil. Contains foam suppressant additives; high viscosity index.

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Size</th>
<th>Viscosity</th>
<th>Recommended for use with</th>
</tr>
</thead>
<tbody>
<tr>
<td>9636</td>
<td>1 quart</td>
<td>215 SSU @ 100°F</td>
<td>4000, 4002, 4006, 4017, 4020, 4021, Vanguard, RamRunner and Stinger pumps</td>
</tr>
<tr>
<td>9637</td>
<td>1 gallon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hydraulic Hose
Lightweight, rugged hose in lengths to 20 ft. Choose from 1/4" I.D. or 3/8" I.D. high flow hose. All have 3/8" NPTF ends. Operating pressure is 10,000 PSI. Hoses comply with MHI Std. IJ100.

<table>
<thead>
<tr>
<th>OTC No.</th>
<th>Hose Length</th>
<th>Hose Inside Dia.</th>
<th>Hose Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>9766</td>
<td>3 ft.</td>
<td>1/4&quot;</td>
<td>Braid (2-ply Rating)</td>
</tr>
<tr>
<td>9767</td>
<td>6 ft.</td>
<td>1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>9768</td>
<td>8 ft.</td>
<td>1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>9769</td>
<td>10 ft.</td>
<td>1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>9770</td>
<td>12 ft.</td>
<td>1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>9780</td>
<td>6 ft.</td>
<td>3/8&quot;</td>
<td>Nylon Core Synthetic Fiber</td>
</tr>
<tr>
<td>9781</td>
<td>10 ft.</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>9782</td>
<td>20 ft.</td>
<td>Flow</td>
<td>Reinforced *</td>
</tr>
</tbody>
</table>

* Note: This hose is not recommended for use where heat or weld spatter conditions exist.
A
ABS Brake Proportioning Valve Depressor …………………………………………………… 79
A/C and Fuel Line Disconnect Set ……………………………………………………………. 92
A/C Clutch Holding Tool …………………………………………………………………….. 91
A/C Clutch Hub Remover/Installer Set ……………………………………………………… 91
A/C Clutch Pulley Puller Set ………………………………………………………………… 91
Accutorq™ Clikker Torque Wrenches ……………………………………………………… 107
A/C spring lock coupling tool ……………………………………………………………….. 92
Acura Ball Joint Adapter Set ………………………………………………………………… 63
Adapter Plates, Engine Stand ………………………………………………………………… 183
Adjustable Bearing Race and Seal Driver ………………………………………………….. 71, 116
Adjustable Hook Spanner Wrench ………………………………………………………… 49, 106
Adjustable Oil Filter Pliers …………………………………………………………………. 162
Adjustable Wrenches ………………………………………………………………………. 108
Air-Assisted High-Lift Transmission Jack ………………………………………………….. 201 – 203
Air Bag Release Tool Kit ……………………………………………………………………… 90, 95
Air Bag Simulator …………………………………………………………………………… 90, 96
Air Blow Gun ………………………………………………………………………………… 44
Air Brake Line Release Tools ………………………………………………………………… 29, 169
Air Brake Service Kit ………………………………………………………………………… 169
Air Chuck …………………………………………………………………………………….. 189
Air/Hydraulic Bottle Jacks …………………………………………………………………… 185, 220
Air/Hydraulic Pump ………………………………………………………………………….. 193, 225, 229
Air/Hydraulic Service Jacks ………………………………………………………………… 182, 207
Air Lift ……………………………………………………………………………………… 180, 200
Air Lift & Support Stand ……………………………………………………………………. 179, 202
Air Operated DEF Pump ……………………………………………………………………. 195
Air Operated Double Diaphragm DEF Pump …………………………………………….. 195
Air Operated Valve Lockdown Tool ………………………………………………………… 96
Alternator Pulley Service Kit ………………………………………………………………… 14
Aluminum Racing Jack wall Mount ………………………………………………………… 205
Aluminum Rams ……………………………………………………………………………. 225
Aluminum Service Jacks ……………………………………………………………………. 205
Aluminum Vice Inserts …………………………………………………………………….. 109
Angled Crimping Pliers …………………………………………………………………… 102, 112
Angle-Tip Relay Pliers ……………………………………………………………………… 89, 112
Anti-Static Wrist Strap ……………………………………………………………………… 89
Audi Strut Nut Socket ……………………………………………………………………… 67
Automatic Center Punch …………………………………………………………………… 19, 105
Automatic Transmission Clutch Spring Compressor …………………………………… 46
Auto Shut-Off DEF Nozzle ………………………………………………………………… 195
Auxiliary Countershaft Shim Tool ………………………………………………………… 171
Axle Hub Nut Socket ……………………………………………………………………… 168
Axle Nut Socket …………………………………………………………………………… 51
Axle Nut Socket Set – FWD ………………………………………………………………… 50
Axle Seal Installer ………………………………………………………………………….. 52
Axle Seal Protector ………………………………………………………………………… 53
Axle-Stud Cone Pliers ……………………………………………………………………… 169

B
Back Buddy™ II ……………………………………………………………………………… 186
Ball Hone Set ……………………………………………………………………………….. 54, 79, 118
Ball Joint Application Guide ………………………………………………………………… 65
Ball Joint Separator ……………………………………………………………………….. 57 – 66
Ball Joint Sets ………………………………………………………………………………. 63
Ball Peen Hammer …………………………………………………………………………. 102
Bar-Type Puller/Bearing Separator Set …………………………………………………… 131
Battery Brush ………………………………………………………………………………. 86
Battery Cable Cutter ……………………………………………………………………… 86
Battery Carrier ……………………………………………………………………………… 86
Battery Filler ……………………………………………………………………………….. 86
Battery Hydrometer ……………………………………………………………………… 86
Battery Pliers ……………………………………………………………………………….. 86, 112
Battery Terminal Puller ……………………………………………………………………. 86
Battery Terminal Service Kit ………………………………………………………………. 86
Battery Terminal Wrench ………………………………………………………………… 86, 106
Battery Terminal Wrench ………………………………………………………………… 86
Bear Breaking Tool ……………………………………………………………………….. 83
Bearing Cup Installer ………………………………………………………………………. 165, 169
Bearing Cup Remover …………………………………………………………………….. 71, 130
Bearing Driver ……………………………………………………………………………… 170
Bearing Driver Set …………………………………………………………………………. 117
Bearing Puller Set ………………………………………………………………………….. 170
Bearing Race and Seal Driver Kit …………………………………………………………. 116
Bearing Race and Seal Driver Set ………………………………………………………… 71
Bearing Splitter Combo Set ………………………………………………………………… 132
Bearing Splitters …………………………………………………………………………… 127
Belt Holding Tool ………………………………………………………………………….. 13
Belt Tension Gauge ………………………………………………………………………… 14
Bench-Mounted Holding Fixture ………………………………………………………….. 49, 203
Blankets, Protective ………………………………………………………………………. 121
Blind Hole Bearing Puller Set …………………………………………………………….. 131
Blind Hole Puller Set ……………………………………………………………………… 131
Blow Gun ………………………………………………………………………………….. 44, 118
BMW Ball Joint Adapter Set ……………………………………………………………… 63
BMW Head Bolt Socket ………………………………………………………………… 11, 104
Body and Fender Dent Puller ……………………………………………………………… 97
Bolt Circle Gauge ………………………………………………………………………….. 83
Bolt Grip Set ……………………………………………………………………………….. 133
Boot Clamp Cutter ………………………………………………………………………. 32
Boot Clamp Pliers ………………………………………………………………………… 32
Bosch Nozzle Socket ……………………………………………………………………… 171
Bottle Jacks ………………………………………………………………………………… 185, 220
Brake Anchor Pin and Bushing Service Set ……………………………………………… 169
Brake Anchor Pin Puller ………………………………………………………………….. 168
Brake Bleeder Hose ………………………………………………………………………. 79
Brake Bleeders …………………………………………………………………………… 78
Brake Bleeder, Vacuum …………………………………………………………………… 40
Brake Bleeding Tools ……………………………………………………………………… 48
Brake Bleeding Tools, Fluid Evacuation ………………………………………………… 37
Brake Caliper Pin/Bolt Remover Set ………………………………………………………. 76
Brake Drum and Rotor Puller ……………………………………………………………… 74
Brake Drum Dolly …………………………………………………………………………. 186, 210
Brake Drum Remover …………………………………………………………………….. 209
Brake Flaring Tool Kit …………………………………………………………………….. 77
Brake Fluid Tester …………………………………………………………………………. 74
Brake Pad Gauge …………………………………………………………………………. 74
Brake Piston Gauge ………………………………………………………………………. 75
Brake Pressure Test Kit …………………………………………………………………… 79
Brake Spring Remover Locking Pliers ……………………………………………………. 76
Brake Spring Locking Pliers ………………………………………………………………. 76
Brake Spring Pliers and Claw ……………………………………………………………… 76
Brake Tool Set ……………………………………………………………………………… 76
Brass Hammer and Punch Set ……………………………………………………………… 97
Brass Punch Set …………………………………………………………………………… 97
Broken Bolt Extractor Adapter Set ………………………………………………………… 115
Broken Bolt Extractor Tool ………………………………………………………………… 67, 115
Bronze Center Bushing Service Set ……………………………………………………… 178
Bubble (I.S.O.) Flaring Tool Kit …………………………………………………………… 77
Bucket Pump, Fluid ……………………………………………………………………….. 44
Budd Wheel Sockets …………………………………………………………………….. 167
Bushing Drive Set ………………………………………………………………………….. 116
Butane-Power MicroTorch ………………………………………………………………… 88

C
Cable Cutters ……………………………………………………………………………….. 112
Calibration Fluid ………………………………………………………………………….. 173
Caliper Hanger Set ……………………………………………………………………….. 76
Caliper Pin Remover …………………………………………………………………….. 76
Cam Gear Holder …………………………………………………………………………. 12
Camshaft Actuator Locking Tool ……………………………………………………….… 9
Camshaft Retaining Tool ………………………………………………………………… 9
Cam Tools ………………………………………………………………………………… 2 – 4
Car Dollies ………………………………………………………………………………… 209
<table>
<thead>
<tr>
<th>Specialty Tools</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cart...</td>
<td>118</td>
</tr>
<tr>
<td>Caster/Camber Adjusting Tool</td>
<td>66</td>
</tr>
<tr>
<td>Caterpillar Fuel Injector Nozzle Puller</td>
<td>171</td>
</tr>
<tr>
<td>Center and End Bushing Service Set</td>
<td>178</td>
</tr>
<tr>
<td>Center Punch</td>
<td>19</td>
</tr>
<tr>
<td>C-Frame...</td>
<td>64, 52, 83, 115, 162, 216</td>
</tr>
<tr>
<td>Charged Air Cooler Tester</td>
<td>164</td>
</tr>
<tr>
<td>Chevy/GMC Ball Joint Adapter Set</td>
<td>64</td>
</tr>
<tr>
<td>Chisel Set</td>
<td>116</td>
</tr>
<tr>
<td>Chrysler Ball Joint Adapter Set</td>
<td>63</td>
</tr>
<tr>
<td>Chrysler Ball Joint Service Kit</td>
<td>62</td>
</tr>
<tr>
<td>Chrysler Boot Clamp Pliers</td>
<td>54</td>
</tr>
<tr>
<td>Chrysler Camshaft Alignment Tool Set</td>
<td>10</td>
</tr>
<tr>
<td>Chrysler Crankshaft Damper Remover/Installer Kit</td>
<td>10</td>
</tr>
<tr>
<td>Chrysler Fuel Pump Module Spanner Wrench</td>
<td>30</td>
</tr>
<tr>
<td>Chrysler Harmonic Balancer Holding Tool</td>
<td>10</td>
</tr>
<tr>
<td>Chrysler Heater Hose Disconnect Tool Set</td>
<td>47</td>
</tr>
<tr>
<td>Chrysler/Jeep Cam Tool Set</td>
<td>10</td>
</tr>
<tr>
<td>Chrysler/Mitsubishi Truck Ball Joint Adapter Set</td>
<td>64</td>
</tr>
<tr>
<td>Chrysler Timing Belt Wrench</td>
<td>10</td>
</tr>
<tr>
<td>Chrysler Transmission Dipstick</td>
<td>46</td>
</tr>
<tr>
<td>Cigarette Lighter Socket Remover</td>
<td>94</td>
</tr>
<tr>
<td>Clamshell Strut Spring Compressor</td>
<td>61</td>
</tr>
<tr>
<td>Clevis Pin Press</td>
<td>169</td>
</tr>
<tr>
<td>Clutch-Adjusting Wrench</td>
<td>164</td>
</tr>
<tr>
<td>Clutch Alignment Tool</td>
<td>46</td>
</tr>
<tr>
<td>Clutch Coupling Tool</td>
<td>46</td>
</tr>
<tr>
<td>Clutch Rotating Tool</td>
<td>46</td>
</tr>
<tr>
<td>Clutch Service Set...</td>
<td>165</td>
</tr>
<tr>
<td>Clutch Spring Compressor</td>
<td>46</td>
</tr>
<tr>
<td>Collision Repair Sets...</td>
<td>99, 194, 221</td>
</tr>
<tr>
<td>Compression Tester</td>
<td>5</td>
</tr>
<tr>
<td>Compression Tester - Deep Well Connector</td>
<td>16</td>
</tr>
<tr>
<td>Compression Tester Kit</td>
<td>17</td>
</tr>
<tr>
<td>Compressor Bridge Accessory</td>
<td>61</td>
</tr>
<tr>
<td>Compressor Drive-Gear Coupling Puller</td>
<td>164</td>
</tr>
<tr>
<td>Cone-type Plier</td>
<td>130</td>
</tr>
<tr>
<td>Connecting Rod Guides</td>
<td>9</td>
</tr>
<tr>
<td>Control Valves...</td>
<td>231</td>
</tr>
<tr>
<td>Cooling System...</td>
<td>40</td>
</tr>
<tr>
<td>Cooling System Power Flush Gun</td>
<td>118</td>
</tr>
<tr>
<td>Cooling System Pressure Tester</td>
<td>39</td>
</tr>
<tr>
<td>Countershift Bearing Driver</td>
<td>170</td>
</tr>
<tr>
<td>Countershift Pushing Tool</td>
<td>170</td>
</tr>
<tr>
<td>Crank &amp; Cam Seal Service Kit</td>
<td>12</td>
</tr>
<tr>
<td>Crankshaft Seal Installer</td>
<td>5, 11</td>
</tr>
<tr>
<td>Cross Pen Hammer</td>
<td>102</td>
</tr>
<tr>
<td>Cummins Diesel Fuel Injector Kit</td>
<td>171</td>
</tr>
<tr>
<td>Cummins Diesel Fuel Injector Remover Kit</td>
<td>31, 161</td>
</tr>
<tr>
<td>Cummins Diesel Fuel Injector Timing Kit</td>
<td>164</td>
</tr>
<tr>
<td>Cummins Drive-Pulley Tool Set</td>
<td>164</td>
</tr>
<tr>
<td>Cummins Engine Barring Tool</td>
<td>13, 161</td>
</tr>
<tr>
<td>Cummins Engine Turning Tool...</td>
<td>13, 64</td>
</tr>
<tr>
<td>Cummins® Fuel Injector Puller Adapter</td>
<td>171</td>
</tr>
<tr>
<td>Cummins® Injector Puller</td>
<td>171</td>
</tr>
<tr>
<td>Cummins® Injector Remover/Installer Kit</td>
<td>171</td>
</tr>
<tr>
<td>Cummins Water Pump Pulley Tool</td>
<td>164</td>
</tr>
<tr>
<td>CV Boot Clamp Cutter...</td>
<td>32, 54</td>
</tr>
<tr>
<td>CV Boot Clamp Installer</td>
<td>54</td>
</tr>
<tr>
<td>CV Boot Clamp Pliers...</td>
<td>32, 54</td>
</tr>
<tr>
<td>CV Joint Banding Tool and Cutter</td>
<td>54</td>
</tr>
<tr>
<td>Cylinder Auto Filler</td>
<td>78</td>
</tr>
<tr>
<td>Cylinder Leakage Tester Kit...</td>
<td>17</td>
</tr>
<tr>
<td>Cylinder Liner Height Gauge</td>
<td>164</td>
</tr>
<tr>
<td>Davco Diesel Filter Wrenches...</td>
<td>31, 173</td>
</tr>
<tr>
<td>DEF Dispenser Coupler</td>
<td>195</td>
</tr>
<tr>
<td>DEF Electric Pump Drum Kit...</td>
<td>195</td>
</tr>
<tr>
<td>with Dispenser Coupler...</td>
<td>195</td>
</tr>
<tr>
<td>DEF Electric Pump Tote Kit...</td>
<td>195</td>
</tr>
<tr>
<td>with Dispenser Coupler...</td>
<td>195</td>
</tr>
<tr>
<td>DEF Nozzle...</td>
<td>195</td>
</tr>
<tr>
<td>DEF Pump...</td>
<td>195</td>
</tr>
<tr>
<td>DEF Refractometer...</td>
<td>31, 198</td>
</tr>
<tr>
<td>Deluxe Radio and Antenna Service Kit</td>
<td>89, 101</td>
</tr>
<tr>
<td>Dent Puller...</td>
<td>97</td>
</tr>
<tr>
<td>Detroit Diesel Injector Socket...</td>
<td>31, 161</td>
</tr>
<tr>
<td>Diesel Compression Tester</td>
<td>160</td>
</tr>
<tr>
<td>Diesel Compression Tester with Adapters...</td>
<td>18</td>
</tr>
<tr>
<td>Diesel Engine Barring Socket</td>
<td>161</td>
</tr>
<tr>
<td>Diesel Engine Stand...</td>
<td>183, 211</td>
</tr>
<tr>
<td>Diesel Filter Wrenches...</td>
<td>31</td>
</tr>
<tr>
<td>Diesel Fuel Line Wrench...</td>
<td>30, 171</td>
</tr>
<tr>
<td>Diesel Fuel Pressure Gauge...</td>
<td>8, 31, 161</td>
</tr>
<tr>
<td>Diesel Particulate Filter Cleaner</td>
<td>196, 197</td>
</tr>
<tr>
<td>Differential Bearing Preload Wrench...</td>
<td>52</td>
</tr>
<tr>
<td>Differential Bearing Pullers...</td>
<td>52, 130</td>
</tr>
<tr>
<td>Differential Housing Spreader...</td>
<td>54, 168</td>
</tr>
<tr>
<td>Differential Mounting Adapter...</td>
<td>54</td>
</tr>
<tr>
<td>Differential Side Bearing Pullers...</td>
<td>53, 130</td>
</tr>
<tr>
<td>Digital Torque Wrench...</td>
<td>107</td>
</tr>
<tr>
<td>Digital Turbine DEF Flow Meter</td>
<td>195</td>
</tr>
<tr>
<td>Disc Brake Pad Spreader</td>
<td>75</td>
</tr>
<tr>
<td>Disc Brake Piston Tool</td>
<td>75</td>
</tr>
<tr>
<td>Disconnect Tools...</td>
<td>27, 28</td>
</tr>
<tr>
<td>Disconnect Tool Set...</td>
<td>92</td>
</tr>
<tr>
<td>Disc Park Brake Caliper Tool Kit</td>
<td>75</td>
</tr>
<tr>
<td>Distributor Bushing Installer/Reamer...</td>
<td>10</td>
</tr>
<tr>
<td>Dodge Hub Service Set...</td>
<td>69</td>
</tr>
<tr>
<td>Dodge/Jeep Truck, SUV Ball Joint Adapter Set64</td>
<td></td>
</tr>
<tr>
<td>Dodge Locknut Socket...</td>
<td>50, 51, 72</td>
</tr>
<tr>
<td>Door Buzzer Shutoff Tool...</td>
<td>89, 96</td>
</tr>
<tr>
<td>Door Handle Spring Retainer...</td>
<td>94</td>
</tr>
<tr>
<td>Door Panel &amp; Upholstery Tool Sets...</td>
<td>94</td>
</tr>
<tr>
<td>Double Edge Screw Extractors...</td>
<td>19, 105</td>
</tr>
<tr>
<td>Double Flaring Tool Kit...</td>
<td>77</td>
</tr>
<tr>
<td>DPF Cleaner...</td>
<td>196, 197</td>
</tr>
<tr>
<td>DPF Handler...</td>
<td>198</td>
</tr>
<tr>
<td>DPF Seal Repair Kits...</td>
<td>197</td>
</tr>
<tr>
<td>DPF Thermal Processing Unit...</td>
<td>198</td>
</tr>
<tr>
<td>Drain Plug Removal...</td>
<td>33</td>
</tr>
<tr>
<td>Drain Reservoir...</td>
<td>37</td>
</tr>
<tr>
<td>Drilling Guide System...</td>
<td>19, 105</td>
</tr>
<tr>
<td>DriveMaster™ Driveline Lift...</td>
<td>179, 202</td>
</tr>
<tr>
<td>Dual End Wire Holder...</td>
<td>88</td>
</tr>
<tr>
<td>Dualmaster® Two-Stage Hand Pumps...</td>
<td>229</td>
</tr>
<tr>
<td>Dual/Single Wheel Separator...</td>
<td>187</td>
</tr>
<tr>
<td>Dual Wheel Bead Breaker...</td>
<td>189</td>
</tr>
<tr>
<td>Dual Wheel Dolly...</td>
<td>186, 210</td>
</tr>
<tr>
<td>Duramax Water Sensor Wrench...</td>
<td>31, 173</td>
</tr>
<tr>
<td>E...</td>
<td></td>
</tr>
<tr>
<td>Ear-type CV Boot Clamp Pliers...</td>
<td>32, 54</td>
</tr>
<tr>
<td>Easy Lever Wheel Dollies...</td>
<td>186</td>
</tr>
<tr>
<td>E-Clip Tool Set...</td>
<td>94</td>
</tr>
<tr>
<td>EGR Valve Puller...</td>
<td>6</td>
</tr>
<tr>
<td>Electrical Connector Separator Tool...</td>
<td>88</td>
</tr>
<tr>
<td>Electric DEF Transfer Pump...</td>
<td>195</td>
</tr>
<tr>
<td>Electric Pump...</td>
<td>230</td>
</tr>
<tr>
<td>Electronic Ignition Spark Tester...</td>
<td>16</td>
</tr>
<tr>
<td>End Bushing Adapter Puller Set...</td>
<td>177</td>
</tr>
<tr>
<td>End Bushing Adapter Puller Set for Hendrickson Truck Suspensions...</td>
<td>178</td>
</tr>
<tr>
<td>Engine Load Leveler...</td>
<td>192, 214</td>
</tr>
<tr>
<td>Engine Prelube Kit...</td>
<td>18, 193</td>
</tr>
<tr>
<td>Engine Slings...</td>
<td>214</td>
</tr>
<tr>
<td>Engine Stand...</td>
<td>183, 211, 212</td>
</tr>
<tr>
<td>Tool Description</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Ford 4WD Caster/Camber Sleeve Puller</td>
<td>66</td>
</tr>
<tr>
<td>Ford 5-pin Connector Harness for Glow Plug Testing</td>
<td>6, 89, 160</td>
</tr>
<tr>
<td>Ford 6.0L Diesel</td>
<td>29</td>
</tr>
<tr>
<td>Ford 6.0L Diesel Fan Clutch Wrench</td>
<td>6</td>
</tr>
<tr>
<td>Ford 6.0L Diesel IPR Controller</td>
<td>90</td>
</tr>
<tr>
<td>Ford 6.0L Diesel Service Tool Kit</td>
<td>5</td>
</tr>
<tr>
<td>Ford 6.0L Diesel Terminal Release Tool</td>
<td>90</td>
</tr>
<tr>
<td>Ford 6.0L Glow Plug Release Tool</td>
<td>90</td>
</tr>
<tr>
<td>Ford 7.3L Fuel Filter Wrench</td>
<td>29</td>
</tr>
<tr>
<td>Ford Axle Shaft Seal Installers</td>
<td>58, 70</td>
</tr>
<tr>
<td>Ford Ball Joint Adapter Set</td>
<td>63</td>
</tr>
<tr>
<td>Ford Caliper Pin Remover</td>
<td>76</td>
</tr>
<tr>
<td>Ford Cam Tools</td>
<td>2, 3, 4</td>
</tr>
<tr>
<td>Ford Caster/Camber Adjusting Wrench</td>
<td>66</td>
</tr>
<tr>
<td>Ford Diesel Compression Test Adapter</td>
<td>6, 160</td>
</tr>
<tr>
<td>Ford Diesel Fan Clutch Wrench</td>
<td>6</td>
</tr>
<tr>
<td>Ford Engine Adapters</td>
<td>6</td>
</tr>
<tr>
<td>Ford Fuel Injector Puller Adapter</td>
<td>171</td>
</tr>
<tr>
<td>Ford Fuel Line Disconnect Tool Set</td>
<td>48</td>
</tr>
<tr>
<td>Ford Halfshaft Remover/Differential Rotator</td>
<td>53</td>
</tr>
<tr>
<td>Ford Heater Hose Disconnect Tool Set</td>
<td>47</td>
</tr>
<tr>
<td>Ford High Pressure Oil Line Disconnect Tool</td>
<td>6, 161</td>
</tr>
<tr>
<td>Ford Injector Remover / Installer Kit</td>
<td>30, 161</td>
</tr>
<tr>
<td>Ford Locknut Socket</td>
<td>50, 51, 72</td>
</tr>
<tr>
<td>Ford Lock Pin Remover</td>
<td>59</td>
</tr>
<tr>
<td>Ford Mirror Removal Tool</td>
<td>95</td>
</tr>
<tr>
<td>Ford Oil Line Disconnect Tool</td>
<td>6</td>
</tr>
<tr>
<td>Ford Power Steering Pump Pulley Installer</td>
<td>58</td>
</tr>
<tr>
<td>Ford Radio Removal Tool Kit</td>
<td>90, 101</td>
</tr>
<tr>
<td>Ford Rear Crankshaft Seal Installer</td>
<td>5</td>
</tr>
<tr>
<td>Ford Rear Main Oil Seal Kit</td>
<td>5, 160</td>
</tr>
<tr>
<td>Ford Rear Main Seal Installer</td>
<td>5</td>
</tr>
<tr>
<td>Ford Spark Plug Remover</td>
<td>5</td>
</tr>
<tr>
<td>Ford Supply Tube Removal Tool</td>
<td>11</td>
</tr>
<tr>
<td>Ford Torsion Bar Adjustment Tool</td>
<td>66</td>
</tr>
<tr>
<td>Ford Transit Connect Van Ball Joint Adapter Set</td>
<td>63</td>
</tr>
<tr>
<td>Ford Transmission Cooler Line Disconnect Set</td>
<td>48</td>
</tr>
<tr>
<td>Ford Transmission Fluid Fill Adapter</td>
<td>46</td>
</tr>
<tr>
<td>Ford Truck Ball Joint Adapter Update Kit</td>
<td>65</td>
</tr>
<tr>
<td>Ford Truck Torsion Bar Tool</td>
<td>66</td>
</tr>
<tr>
<td>Ford Vacuum Front Hub Release Tool Set</td>
<td>69</td>
</tr>
<tr>
<td>Ford Valve Spring Compressor Tool</td>
<td>16</td>
</tr>
<tr>
<td>Ford Van Ball Joint Adapter</td>
<td>65</td>
</tr>
<tr>
<td>Fork Lift Jacks</td>
<td>181, 208</td>
</tr>
<tr>
<td>Front Oil Filter Wrench</td>
<td>29</td>
</tr>
<tr>
<td>Front Suspension Bushing Tool Kit</td>
<td>175</td>
</tr>
<tr>
<td>Frost Plug Remover/Installer Set</td>
<td>15</td>
</tr>
<tr>
<td>Fuel Injection Application Manual</td>
<td>25</td>
</tr>
<tr>
<td>Fuel Injection Cleaner</td>
<td>25</td>
</tr>
<tr>
<td>Fuel Injection Kit</td>
<td>22, 24</td>
</tr>
<tr>
<td>Fuel Injector Cleaning Kit</td>
<td>24</td>
</tr>
<tr>
<td>Fuel Injector fittings</td>
<td>23, 26</td>
</tr>
<tr>
<td>Fuel Injector Nozzle Puller</td>
<td>30, 171</td>
</tr>
<tr>
<td>Fuel Injector Remover Kit</td>
<td>31</td>
</tr>
<tr>
<td>Fuel Injector Storage Rack</td>
<td>30, 161</td>
</tr>
<tr>
<td>Fuel Line Disconnect Tool</td>
<td>92</td>
</tr>
<tr>
<td>Fuel Line Disconnect Tool Set</td>
<td>48</td>
</tr>
<tr>
<td>Fuel Line Removal Tool</td>
<td>32</td>
</tr>
<tr>
<td>Fuel Line Stopper Kit</td>
<td>26</td>
</tr>
<tr>
<td>Fuel Line Wrench</td>
<td>30</td>
</tr>
<tr>
<td>Fuel Pressure Gauge</td>
<td>26, 31</td>
</tr>
<tr>
<td>Fuel Pressure Gauge, Diesel</td>
<td>8</td>
</tr>
<tr>
<td>Fuel Pump Installation Gauge</td>
<td>29</td>
</tr>
<tr>
<td>Fuel Pump Module Spanner Wrench</td>
<td>30</td>
</tr>
<tr>
<td>Fuel Sender Lock Ring Wrench</td>
<td>30</td>
</tr>
<tr>
<td>Fuel Tank Handler</td>
<td>203</td>
</tr>
<tr>
<td>Fuel Tank Lock Ring Wrench</td>
<td>30</td>
</tr>
<tr>
<td>Funnel Spout</td>
<td>36</td>
</tr>
<tr>
<td>Gear and Pulley Pullers</td>
<td>49, 53, 132</td>
</tr>
<tr>
<td>Giant Adjustable Wrenches</td>
<td>108, 162</td>
</tr>
<tr>
<td>Gland Nut Wrench</td>
<td>162</td>
</tr>
<tr>
<td>Gloves, Technician</td>
<td>44</td>
</tr>
<tr>
<td>Glow Plug Bore Reamer</td>
<td>10, 160</td>
</tr>
<tr>
<td>Glow Plug Release Tool</td>
<td>16</td>
</tr>
<tr>
<td>Glow Plug Remover</td>
<td>16, 160</td>
</tr>
<tr>
<td>GM Air Brake Line Release Tools</td>
<td>29</td>
</tr>
<tr>
<td>GM Ball Joint Adapter Set</td>
<td>63</td>
</tr>
<tr>
<td>GM Camshaft Actuator Locking Tool</td>
<td>9</td>
</tr>
<tr>
<td>GM Camshaft Retaining Tool</td>
<td>9</td>
</tr>
<tr>
<td>GM Cam Tools</td>
<td>7, 8</td>
</tr>
<tr>
<td>GM Caster/Camber Adjusting Tool</td>
<td>66</td>
</tr>
<tr>
<td>GM Code Retrieval Key</td>
<td>90</td>
</tr>
<tr>
<td>GM Computer-Controlled Carburetor Tools</td>
<td>30</td>
</tr>
<tr>
<td>GM Connecting Rod Guides</td>
<td>9</td>
</tr>
<tr>
<td>GM Cover Alignment Tool</td>
<td>11</td>
</tr>
<tr>
<td>GM Crankshaft Balancer Puller Kit</td>
<td>8</td>
</tr>
<tr>
<td>GM Diesel Fuel Pressure Gauge</td>
<td>8</td>
</tr>
<tr>
<td>GM Door Handle Spring Retainer</td>
<td>94</td>
</tr>
<tr>
<td>GM Duramax Injector Pullers</td>
<td>8, 31, 161</td>
</tr>
<tr>
<td>GM Front Crank Seal Installer</td>
<td>9</td>
</tr>
<tr>
<td>GM Fuel Line Fitting</td>
<td>26</td>
</tr>
<tr>
<td>GM Fuel Pump Installation Gauge</td>
<td>29</td>
</tr>
<tr>
<td>GM Harmonic Balancer Puller Kit</td>
<td>9</td>
</tr>
<tr>
<td>GM Heater Disconnect Tool</td>
<td>42</td>
</tr>
<tr>
<td>GM Heater Line Quick Connect Separator</td>
<td>47</td>
</tr>
<tr>
<td>Heavy-Duty Adjustable Slings</td>
<td>192, 214</td>
</tr>
<tr>
<td>Heavy-Duty Bearing Cup Installer</td>
<td>165</td>
</tr>
<tr>
<td>Heavy-Duty Brake Spring Pliers</td>
<td>170</td>
</tr>
<tr>
<td>Heavy-Duty CV Boot Clamp Installer</td>
<td>54</td>
</tr>
<tr>
<td>Heavy-Duty Drain Plug Pro™</td>
<td>162</td>
</tr>
<tr>
<td>Heavy Duty Drain Plug Removal</td>
<td>33</td>
</tr>
<tr>
<td>Heavy Duty Extendable Indexing Pry Bar</td>
<td>100, 113</td>
</tr>
<tr>
<td>Heavy-Duty Floor Cranes</td>
<td>191, 213</td>
</tr>
<tr>
<td>Heavy-Duty Gear Puller</td>
<td>132</td>
</tr>
<tr>
<td>Heavy-Duty Motor-Rotor® Repair Stand</td>
<td>212</td>
</tr>
<tr>
<td>Heavy-Duty Oil Filter Crushers</td>
<td>174, 215</td>
</tr>
<tr>
<td>Heavy-Duty Oil Filter Wrenches</td>
<td>162</td>
</tr>
<tr>
<td>Heavy-Duty Power Steering Pump Analyzer</td>
<td>168</td>
</tr>
<tr>
<td>Heavy-Duty Press</td>
<td>216, 217, 218</td>
</tr>
<tr>
<td>Heavy Duty Pulley Holder</td>
<td>108, 118</td>
</tr>
<tr>
<td>Heavy Duty Repair Stand</td>
<td>184</td>
</tr>
<tr>
<td>Heavy-Duty Single Pressure Beam Bearing Splitter Set</td>
<td>132</td>
</tr>
<tr>
<td>Heavy-Duty Snap Ring Pliers Set</td>
<td>162</td>
</tr>
<tr>
<td>Heavy-Duty Spindle Adapter</td>
<td>202</td>
</tr>
<tr>
<td>Heavy Duty Tie Rod and Ball Joint Remover</td>
<td>57, 168</td>
</tr>
<tr>
<td>Heavy-Duty Transmission Jack</td>
<td>179</td>
</tr>
<tr>
<td>Heavy-Duty Tubing Cutter</td>
<td>32, 48, 77</td>
</tr>
<tr>
<td>Heavy-Duty U-Joint Puller</td>
<td>165</td>
</tr>
<tr>
<td>Heavy Duty Valve Spring Compressor</td>
<td>15</td>
</tr>
<tr>
<td>Heavy-Duty Wheel Step</td>
<td>185, 209</td>
</tr>
<tr>
<td>Hendrickson Airtek NXT Bushing Adapter Kit</td>
<td>176</td>
</tr>
<tr>
<td>Hendrickson Bar Pin Adapter Set</td>
<td>176</td>
</tr>
<tr>
<td>Hendrickson Front Suspension Bushing Tool Kit</td>
<td>175, 176</td>
</tr>
<tr>
<td>Hendrickson Primax Quick Alignment Socket</td>
<td>176</td>
</tr>
<tr>
<td>Hendrickson PRIMAAX® Quick Wrench</td>
<td>176</td>
</tr>
<tr>
<td>Hendrickson Rear Suspension Bushing Tool Kit</td>
<td>175</td>
</tr>
<tr>
<td>Hendrickson Suspension Bar Pin End Bushing Adapter Set</td>
<td>178</td>
</tr>
<tr>
<td>Hendrickson Suspension, Hydraulics</td>
<td>177</td>
</tr>
<tr>
<td>Hex Socket</td>
<td>104, 171</td>
</tr>
<tr>
<td>High-Lift Dual Wheel Dolly</td>
<td>186, 210</td>
</tr>
<tr>
<td>High-Lift Transmission Jack</td>
<td>179, 201, 203</td>
</tr>
<tr>
<td>High Profile Jack Stand</td>
<td>184, 208</td>
</tr>
<tr>
<td>Hole Punch Kit</td>
<td>97</td>
</tr>
<tr>
<td>Hollow Center Hydraulic Rams</td>
<td>226</td>
</tr>
<tr>
<td>Honda/Acura Crankshaft and Harmonic Balancer Holder</td>
<td>11</td>
</tr>
<tr>
<td>Honda/Acura Damper Holding Tool</td>
<td>11</td>
</tr>
<tr>
<td>Honda Ball Joint Adapter Set</td>
<td>63</td>
</tr>
<tr>
<td>Honda Locknut Socket</td>
<td>51, 72</td>
</tr>
<tr>
<td>Honda/Toyota Truck/Van/SUV Ball Joint Adapter Set</td>
<td>65</td>
</tr>
<tr>
<td>Horseshoe Lock Ring Pliers</td>
<td>111</td>
</tr>
<tr>
<td>Hose Clamp Pliers</td>
<td>41</td>
</tr>
<tr>
<td>Hose Cutter</td>
<td>98, 112</td>
</tr>
<tr>
<td>Hose Pinch Off Pliers</td>
<td>16, 32, 112</td>
</tr>
<tr>
<td>Hose &amp; PVC Cutter</td>
<td>32, 42</td>
</tr>
<tr>
<td>Hose &amp; PVC Cutter, Ratcheting</td>
<td>98</td>
</tr>
<tr>
<td>Hose Removal Set</td>
<td>33, 101, 114</td>
</tr>
<tr>
<td>Hose Removal Tool</td>
<td>42</td>
</tr>
<tr>
<td>Hub Application Guide</td>
<td>69</td>
</tr>
<tr>
<td>Hubcap Installer</td>
<td>166</td>
</tr>
<tr>
<td>Hub Cap Removal Tool</td>
<td>83</td>
</tr>
<tr>
<td>Hub Grappler™ Application Guide</td>
<td>69</td>
</tr>
<tr>
<td>Hub Grappler™ Kit</td>
<td>68</td>
</tr>
<tr>
<td>Hub Installer</td>
<td>69</td>
</tr>
<tr>
<td>Hub Oil Seal Puller</td>
<td>169</td>
</tr>
<tr>
<td>Hub Puller</td>
<td>68</td>
</tr>
<tr>
<td>Hub remover</td>
<td>69, 209</td>
</tr>
<tr>
<td>Hub Resurfacing Kit</td>
<td>70</td>
</tr>
<tr>
<td>Hydraulic Accessories</td>
<td>233</td>
</tr>
<tr>
<td>Hydraulic Bottle Jack Presses</td>
<td>216</td>
</tr>
<tr>
<td>Hydraulic Brake Spring Tool</td>
<td>170</td>
</tr>
<tr>
<td>Hydraulic C-Frame Press</td>
<td>216</td>
</tr>
<tr>
<td>Hydraulic Flow Meters</td>
<td>222, 223</td>
</tr>
<tr>
<td>Hydraulic Grip-O-Matic® Puller</td>
<td>126</td>
</tr>
<tr>
<td>Hydraulic Hand Pump</td>
<td>224</td>
</tr>
<tr>
<td>Hydraulic Hoses</td>
<td>234</td>
</tr>
<tr>
<td>Hydraulic Hub Grappler™ Kit</td>
<td>68</td>
</tr>
<tr>
<td>Hydraulic Hub Kit</td>
<td>68</td>
</tr>
<tr>
<td>Hydraulic Oil</td>
<td>234</td>
</tr>
<tr>
<td>Hydraulic Puller Sets</td>
<td>135</td>
</tr>
<tr>
<td>Hydraulic Push-Puller®</td>
<td>126</td>
</tr>
<tr>
<td>Hydraulic Rams</td>
<td>224, 226, 230, 232</td>
</tr>
<tr>
<td>Hydraulic Rams, Collision Repair Sets</td>
<td>98</td>
</tr>
<tr>
<td>Hydraulic Service Jacks</td>
<td>206</td>
</tr>
<tr>
<td>Hydraulic Sleeve Puller Set</td>
<td>163</td>
</tr>
<tr>
<td>Hydraulic Spreaders</td>
<td>98, 193</td>
</tr>
<tr>
<td>Hydraulic Spreaders</td>
<td>221</td>
</tr>
<tr>
<td>Hyundai Ball Joint Adapter Set</td>
<td>64</td>
</tr>
</tbody>
</table>

**SPECIALTY TOOLS ALPHABETICAL INDEX**

| GM Hydraulic Clutch Line Disconnect Tool | 47 |
| GM Injection Pump Wrench Set | 31, 161 |
| GM Injector Rail Assembly Remover | 9 |
| GM Injector Retaining Clip Replacer | 29 |
| GM Injector Seal Installer Adapters | 29 |
| GM In-line 4-Cylinder Cam Tool Set | 7 |
| GM Key Fob Fixture | 94 |
| GM Locknut Socket | 51, 72 |
| GM Oil Pressure Adapter | 11 |
| GM Pan Seal Cutter | 9 |
| GM Pitman Arm Remover | 57 |
| GM Power Steering Pump Pulley | 59 |
| GM Steering Column Anti-Rotation Pin | 94 |
| GM Timing Chain Holding Tool | 8 |
| GM Timing Chain Retainer | 9 |
| GM Torsion Bar Unloading Tool | 66 |
| GM Transmission Oil Cooler Line Disconnect Tool | 47 |
| GM Truck Ball Joint Adapter Set | 65 |
| GM Upper Control Arm Knock-Out Tool | 67 |
| GM Water Pump Holding Tool | 8 |
| GM Water Pump Socket | 8 |
| GM W-Body Strut Tool Kit | 67 |
| Grease Gun | 43 |
| Grease Gun Holder | 44 |
| GripLock Pullers | 130 |
| Grip-O-Matic® Pullers | 122, 123 |
| Grip Wrench Adapters | 97, 129 |
| Grooved Pulley Strap Wrench | 14 |

**H**

| Hammer Display | 115 |
| Hammers | 102, 115 |
| Hammer & Tire Service Display Rack | 115, 187 |
| Handled Pry Bars | 113 |
| Hand Operated DEF Pump | 195 |
| Hands Free Air Chuck | 84 |
| Harmonic Balancer Installer | 13 |
| Harmonic Balancer Puller Kit | 9, 10 |
| HD Spindle Adapter | 179 |
| Heated Oxygen Sensor Socket | 20 |
| Heater Hose Disconnect Tool | 42 |
| Heat Shrink Tubing Set | 88 |
| Heavy-Duty Adjustable Hook Spanner Wrench | 106 |
I
Impact Drivers ........................................ 106, 116
Import Truck Ball Joint Adapter Set ........ 64
Indexing Pry Bar ........................................ 100, 113
Injection Pump Bar Set .............................. 31
Injector Nozzle Puller .............................. 30
Injector Pullers ......................................... 31
Injector Rail Assembly Remover ............... 9
Injector Remover / Installer Kit ................. 30
Injector Retaining Clip Replacer ................. 29
Injector Seal Installer Adapters ................. 29
Injector Sleeve Set ................................ 171
Injector Socket ......................................... 31
Injector Tube Remover/Installer ............... 10, 160
Inner CV Joint Puller ............................... 53
Inner Pinion Bearing Race Installer .......... 53
Inner Tie Rod Wrenches ......................... 58
Input Shaft Seal Installer ......................... 47
Interchangeable Punch and Chisel Set ....... 116
Internal/external retaining ring pliers kit .... 110, 111
Internal Pulling Attachments .................... 127
Isuzu Locknut Socket ............................... 51

J
Jack Stands ........................................... 184, 208
Jeep Ball Joint Service Kit ....................... 62
Jeep Locknut Socket ............................... 51
Jimmy Bars ........................................... 113, 167

K
Key Fob Fixture ....................................... 94
Kia Ball Joint Adapter Set ....................... 64
Kingpin & Brake Anchor Pin Pusher .......... 168

L
Leaf Spring, Pin, and Bushing Service Set ... 169
Lexus Ball Joint Adapter Set ................. 64
Lifting Brackets ...................................... 192, 214
Lifting Chains for Floor Cranes .............. 214
Lifting Systems ....................................... 180, 200
Lift Pad Adapters .................................... 180, 200
lights .................................................. 117
Line Fluid Stoppers ................................... 75
Live Center Forcing Screw Plug .............. 52, 66
Load Leveler .......................................... 192, 212
Load-Rotor® Positioning Sling .................. 192, 214
Locking Pliers ........................................ 106
Locknut Sockets ..................................... 51, 71, 72, 166, 167
Locknut Socket Set ................................... 50
Lock-on, Jaw-type Puller Set .................. 132
Lockout Tool Set ...................................... 96
Lock Pin Remover .................................... 59
Long Handled Pry Bar Set ...................... 100
Long Pick and Hook Set ......................... 101, 114
Long-Side Terminal Battery Wrench ........ 86, 106
Lower Control Arm Prying Tool .............. 66
Low-Lift Transmission Jack ..................... 179, 202
Low Profile Fluid Receiver ....................... 174, 215
Low profile Jack Stand ......................... 208, 184
Lucas Rear Brake Adjusting Tool ............. 170
Lug Nut Cap Remover ............................. 166, 189
Lug Nut Cap Remover Locking Pliers ........ 166, 189
Lug Nut Cap Removers ........................... 82

M
Motorcycle / POWERSPORTS
Section: see page 137
Index: see pages 242–243
Mack Fuel Injector Nozzle Tool .............. 171
Mack Kingpin Socket .............................. 168
MacPherson Strut Spring Hook Compressor 67
Magnetic Clamp Wire Holder ..................... 88
Magnetic Parts Tray .................................. 109
MAJOR Persuaders Pry Bar Merchandiser ... 113
Manual / Pneumatic Pickle Fork Set ......... 57
Manual Sleeve Puller Set ......................... 163
Master Bolt Grip Set (Grade B) .............. 12
Mazda Ball Joint Adapter Set ................. 63, 64
Mechanical Grip–O–Matic® Pullers ........... 122, 123
Mechanic’s Stethoscope ......................... 18, 118
Mercedes-Benz and BMW
Fan Clutch Service Kit .............................. 11
Mercedes-Benz Dashboard Service Tool Kit . 90
Metric Bushing Driver Set ....................... 116
Metric Double Flaring Tool Set with Cutter .77
Metric Hex Socket Set ............................. 104
Mini Pick and Hook Set ......................... 101, 114
Mini Snap Ring Pliers Set ...................... 111
Mini Tubing Cutter .................................. 32, 77
Mirror and Magnet Set ........................... 109
Mirror Removal Tool ............................... 95
Mitsubishi Ball Joint Adapter Set ............ 63
MotorQ® Super Bit Set ............................ 104
Motorcycle / ATV Lift ............................. 209
Motorcycle / ATV Tire Spoon with Grip ... 83
Motorcycle / ATV Wheel Rim Protector Set .. 83
Motorcycle Bead Holding Pliers .......... 83
Motorcycle Brake Caliper Spreader .......... 75
Motorcycle Tire Bead Alignment Tool ....... 83
Motorcycle Tire Bead Holding Tools ......... 83
Multi Purpose Bearing and Puller Set ..... 131
Multi-purpose Scissors ......................... 98, 112
Multipurpose Strap Wrench .................... 108

N
Noid Lite/IAC Test Kit ............................... 25
Noizrater Diesel Injector Nozzle Tester ..... 173
Nozzle-Tester Adapter Set ....................... 172
Nozzle Tester Manifold/Adapter Sets ....... 173

O
Oil Filter Crusher .................................... 38, 174, 215
Oil Filter Pliers ....................................... 162
Oil Filter Sockets .................................... 34
Oil Filter Wrenches .................................. 35, 162
Oil Seal and Wear Ring Installer .......... 164
Oil Seal Pick Set ..................................... 114
Outside Dual Wheel Bead Breaker ........... 82, 189
Overhead Lifts and Hoists chains .......... 192
Oxygen Sensor Socket ......................... 20
Pan Seal Cutter ....................................... 9
Parasitic Draw Test Switch ................. 86
Parts Tray ............................................ 109
Persuader Pry Bar Merchandiser .......... 113
Pickle Forks .......................................... 57
Pilot Bearing Puller ................................. 49, 127, 130, 164
Pinch Mount Expander Kit ..................... 67
Piston Ring Compressor ......................... 15
Piston Ring Expander Pliers ................. 15
Pinion Arm Pullers .................................. 56, 57
Pitman Arm Separator ......................... 57
Pliers, Hose Clamp ................................ 41
Power Driver Socket Extensions ............ 105
Power Steering Bleeder Adapter ............ 59
Power Steering Pump/Alternator
Remover/Installer Tool ......................... 59
Power Steering Pump Analyzer ............. 168
Power Train Lifts .................................... 180, 200, 201
Preset Torque Wrench Sets ................... 84, 107
Press Accessories ................................. 219
Presses .............................................. 216, 217, 218
### SPECIALTY TOOLS

#### ALPHABETICAL INDEX

**Pressure Tester, Cooling System** ............ 39  
**Profile Gauge** .................................. 97  
**Pro Inject-R Kleen Fluid** ....................... 25  
**Propane Enrichment Kit** ......................... 30  
**Protective Blankets** ............................ 121  
**Protector Cups** .................................. 161  
**Pry Bar Head** ..................................... 113  
**Pry Bars** ........................................ 100, 193  
**Pry Pac** .......................................... 113  
**Pulley® Leg Extensions** ......................... 124, 126  
**Pullers** ........................................... 122, 123  
**Puller Set** ........................................ 133, 134  
**Pulley Holder** .................................... 14  
**Pulley Puller** ..................................... 49  
**Pulling Hook** ...................................... 52, 70, 128  
**Pump Reservoir** ................................... 230  
**Pump, Transfer** .................................... 44  
**Punch and Chisel Set** ............................. 114  
**Punch Set** .......................................... 116  
**Push Pin/Body Clip Pliers Set** ................. 94  
**Push-Pullers®** .................................... 124  
**Push-Puller Set** ................................... 132

**R**

**R400 Center Bushing Adapter Set** ............. 177  
**Radio Removal Tool Kit** ......................... 101  
**Ram and Pump Set** ............................... 193, 228  
**Rams** ............................................... 225, 226, 227  
**Ratcheting Chain Wrench** ....................... 108  
**Ratcheting Hose & PVC Cutter (Standard)** .... 20, 98, 112  
**Ratcheting Jack Stands** ......................... 184, 208  
**Rear Axle Bearing Puller Set** ................... 52  
**Rear Axle Puller Set** .............................. 129  
**Rear Axle Service Set** ............................ 52  
**Rear Suspension Bushing Tool Kit** ............ 175  
**Rechargeable Electric Pump** ..................... 195  
**Refilling, Cooling System** ....................... 40  
**Refractometer** .................................... 31  
**Repair Stand** ...................................... 184, 212  
**Retaining Ring Piers** ............................. 110, 111  
**Rolling Head Pry Bar Kit** ....................... 100, 113  
**Rubber Line Clamp Set** ......................... 28  

**S**

**Safety Wire Drill Guide Set, SAE & Metric Set** .... 109  
**Safety Wire Twist Pliers** ......................... 109  
**S-Cam Air Brake Spring Tool** .................... 169  
**Scissors** .......................................... 98, 112  
**Scraper Set** ....................................... 16  
**Screw Extractors** ................................ 19, 96, 104  
**Seal Cutter, Pan** ................................ 9  
**Seal Driver Set** .................................. 116  
**Seal Protector** .................................... 53  
**Seal Puller** ........................................ 47, 53  
**Self-Adjusting Clutch Rotating Tool** .......... 164  
**Sensor Socket Set** ................................ 20, 36  
**Separator Tools** .................................. 57  
**Serpentine Belt Installation Tool** ............... 13  
**Service Cart** ...................................... 118  
**Service Jack** ...................................... 204  
**Service Jacks** ..................................... 182, 204–207  
**Shaft Protector Set** ............................... 125  
**Shift Rail Seal Installer** ......................... 47  
**Shock Link and Tie Rod Separator** ............. 57  
**Shop Presses** ...................................... 218  
**Short Handled Pry Bar Set** ....................... 100  
**Short Pick and Hook Set** ......................... 114  
**Short Pick, Long Pick and Hook Set** .......... 101  
**Side Terminal Battery Brush** .................... 86  
**Side Terminal Battery Wrench** .................. 86, 106  
**Single Acting Rams** ............................... 225  
**Single-Acting, Spring-Return Rams** .......... 227  
**Single Pressure Beam Bearing Splitter Set** .... 132  
**Single Speed Hydraulic Pump** .................. 193  
**Slack Adjuster Pullers** ............................ 169  
**Slack Check** ....................................... 169  
**Sleeve Installation Plates** ....................... 164  
**Sleeve Puller / Installer Sets** .................... 163  
**Sleeve Removal Plates** ........................... 163  
**Slide Hammers** ................................... 100, 128, 162  
**Slide Hammer Puller Set** ....................... 70, 71, 129  
**Slide Hammer Rear Axle Puller** ............... 52, 71  
**Sliding Bead Breaker** ............................. 82, 189  
**Snap Ring Pliers Set** ............................. 111, 162  
**Sockets, Oil Filter** ................................ 34  
**Solder Tool Kit** .................................... 88  
**Spanner Wrench** .................................. 49, 106  
**Spot Weld Cutter Set** ............................. 96  
**Spout Funnel** ..................................... 36, 48  
**Spreader** .......................................... 98  
**Spring Compressor, Strut** ....................... 61  
**Spring Lock Coupler Disconnect Set** .......... 92  
**Spring-Return Hollow Center Hydraulic Rams** .. 226  
**Sprinter Van Ball Joint Kit** ...................... 64  
**Standard TORX® Socket Set** .................... 103  
**Steering Column Anti-Rotation Pin** .......... 94  
**Steering Pivot Pin Remover** ..................... 59  
**Steering Wheel Holder & Pedal Depressor Kit** . 79, 96  
**Steering Wheel Lock Plate Remover** .......... 60  
**Steering Wheel Puller** ........................... 60  
**Steering Wheel Puller Leg Set** ................. 60  
**Steering Wheel, Pulley, and Flywheel Puller** ... 14, 60, 133  
**Steering Wheel Service Set** .................... 60  
**Step Plate Adapter Sets** ......................... 125  
**Stethoscope** ...................................... 18  
**Storage Rack, Fuel Injector** ..................... 161  
**Straight-Blade Hose Cutter** ..................... 20  
**Stretch Belt Service Set** ......................... 13  
**Strong Box Puller Set** ............................ 134  
**Strut Compressor** ................................ 61  
**Strut, Reduction Gearbox** ....................... 61  
**Strut Rod Nut Socket** ............................. 67  
**StrutTamer** ........................................ 61  
**Style Seal Puller** .................................. 114  
**Subaru Ball Joint Adapter Set** ................... 64  
**Suction Oil Gun** ................................... 43  
**Super Stubby Screwdriver Set** ................... 109  
**Suspension Bushing Tool** ...................... 176

**T**

**Tamper-Resistant TORX®** ....................... 103  
**Tamper-Resistant TORX® Plus Socket Set** .... 104  
**Technician Gloves** ............................... 44, 108  
**Terminal Release Tool Set** ...................... 89  
**Thread Chaser** .................................... 106, 193  
**Threaded Adapters** .............................. 125  
**Tie Rod Adjusting Tool** ......................... 58  
**Tie Rod and Ball Joint Remover** ............... 57, 168  
**Tie Rod End Removers** .......................... 56  
**Tie Rod/Pitman Arm Adjusting Set** .......... 58  
**Tie Rod Sockets** .................................. 58, 168  
**Timing Chain Holding Tool** ..................... 8  
**Timing Chain Retainer** ........................... 9  
**Timing Tensioner Locking Pin Set** ............. 14  
**Timing Tool** ...................................... 170
<table>
<thead>
<tr>
<th>Tool Description</th>
<th>Page Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire Bead Breaker</td>
<td>82, 189</td>
<td></td>
</tr>
<tr>
<td>Tire Bead Locking Pliers</td>
<td>83, 190</td>
<td></td>
</tr>
<tr>
<td>Tire Bead Seater</td>
<td>80, 187</td>
<td></td>
</tr>
<tr>
<td>Tire Bead Wedge Pliers</td>
<td>83, 190</td>
<td></td>
</tr>
<tr>
<td>Tire Pressure/Tread Depth Gauge</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Tire Service Display</td>
<td>80, 187</td>
<td></td>
</tr>
<tr>
<td>Tire Service Hammers</td>
<td>82, 189</td>
<td></td>
</tr>
<tr>
<td>Tire Spoon Holding Pliers</td>
<td>83, 190</td>
<td></td>
</tr>
<tr>
<td>Tire Spoon Pack</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Tire Spoon Pack with Hang Rack</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Tire Spoon Rack</td>
<td>80, 187</td>
<td></td>
</tr>
<tr>
<td>Tire Spoons</td>
<td>81, 188</td>
<td></td>
</tr>
<tr>
<td>Tire Valve Installer/Remover Tool</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Tire Valve Stem Punch Kit</td>
<td>84, 190</td>
<td></td>
</tr>
<tr>
<td>Tool Pack</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Torque Angle Gauge</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>Torque Converter Seal Installer</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Torque Multiplier</td>
<td>107, 190</td>
<td></td>
</tr>
<tr>
<td>Torque Wrenches</td>
<td>107, 190</td>
<td></td>
</tr>
<tr>
<td>Torque Wrench Sets</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Torx® Bit Socket Set</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>TORX® PlusSocket Set</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>TORX® Socket Set</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Toyota A/C Disconnect Tool</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Toyota Ball Joint Adapter Set</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Toyota Head Bolt Socket</td>
<td>11, 104</td>
<td></td>
</tr>
<tr>
<td>Toyota Locknut Socket</td>
<td>51, 72</td>
<td></td>
</tr>
<tr>
<td>TPMS Tire Deflator/Locator</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Transfer Pump</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Transfer Tankers</td>
<td>37, 174, 215</td>
<td></td>
</tr>
<tr>
<td>Transmission Adapter Kit</td>
<td>49, 203</td>
<td></td>
</tr>
<tr>
<td>Transmission Adapter Plate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushing Replacer</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Transmission Case Holding Fixture</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Transmission Cooler Line Disconnect Set</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Transmission Dipstick, Chrysler</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Transmission/Engine Oil Pressure Kit</td>
<td>17, 176</td>
<td></td>
</tr>
<tr>
<td>Transmission Fluid Adapters</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Transmission Fluid Fill/Extract Kit</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Transmission Jack</td>
<td>179, 201, 202</td>
<td></td>
</tr>
<tr>
<td>Transmission Jack Adapters</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>Transmission Jack Air-Assisted</td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Transmission Jacks Accessories</td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Transmission Mainshaft Bearing and Gear Installer</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Transmission Timing Block Sets</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Trim Fastener and Molding Removal Set</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>Trim Tool Kit</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Tripod and Underhoist Stands</td>
<td>209</td>
<td></td>
</tr>
<tr>
<td>Tripod Stand</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>Truck Ball Joint Sets</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Truck Ball Joint Spanner Wrench</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Truck Brake Spring Plugs</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Truck Clutch Adjustment Set</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>Truck Clutch Alignment Shafts</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>Truck Clutch &amp; Flywheel Handler</td>
<td>180, 200</td>
<td></td>
</tr>
<tr>
<td>Truck Front Leaf Spring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pin, and Bushing Service Set</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Truck Pinion Sockets</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>Truck Ramps</td>
<td>186, 203</td>
<td></td>
</tr>
<tr>
<td>Truck Torsion Bar Tool</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Truck Transmission Bearing Service Set</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>Truck Wheel Bearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locknut Sockets</td>
<td>166, 167</td>
<td></td>
</tr>
<tr>
<td>Truck Windshield Wiper Puller</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Under Axle Jacks</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Tubing Bender</td>
<td>32, 78, 91</td>
<td></td>
</tr>
<tr>
<td>Tubing Cutter</td>
<td>32, 48, 77, 91</td>
<td></td>
</tr>
<tr>
<td>Tubular Spanner Wrenches</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>Two-Stage Electric / Hydraulic Pumps</td>
<td>231</td>
<td></td>
</tr>
<tr>
<td>Two-Stage Hand Pumps</td>
<td>229</td>
<td></td>
</tr>
<tr>
<td>U-Joint Puller</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>U-Joint Removing/Installing Tool</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>U-Joint Service Adapter</td>
<td>52, 162</td>
<td></td>
</tr>
<tr>
<td>Under Axle Jacks</td>
<td>181, 204</td>
<td></td>
</tr>
<tr>
<td>Underhoist Tripod Stand</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>Universal Bearing Cup Installer</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Universal Belt Tension Gauge</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Universal C-Frame Nut Splitter</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Universal Clutch Holder</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Universal Filter Wrench</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td>Universal Hub Puller</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Universal Lift Support Clamp</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Universal Outside Thread Chaser</td>
<td>106, 193</td>
<td></td>
</tr>
<tr>
<td>Universal Overhead</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve Spring Compressor</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Universal Puller for Wet-Type Sleeves</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>Universal Pulley Holder</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Universal Pulley Holder</td>
<td>112, 118</td>
<td></td>
</tr>
<tr>
<td>Universal Transmission Adapter</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>Upper Arm Alignment Wrenchs</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Upper Control Arm Bushing Service Set</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Upper Control Arm Knock-Out Tool</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>V-Torque Multiplier</td>
<td>40, 78</td>
<td></td>
</tr>
<tr>
<td>Vacuum Brake Bleeder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacuum Hose and Fuel Line Removal Tool</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Vacuum Hose Removal Tool</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Vacuum/Pressure Gauge Kit</td>
<td>18, 26</td>
<td></td>
</tr>
<tr>
<td>Vacuum Pressure Tester</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Valve Spring Compressor</td>
<td>4, 15</td>
<td></td>
</tr>
<tr>
<td>Vanguard® Two-Stage, High-Pressure, Power Units</td>
<td>230, 232</td>
<td></td>
</tr>
<tr>
<td>Variable Pin Spanner Wrench</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>VW Strut Nut Socket</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>Waterproof Heat Shrink Tubing Set</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Water Pump Puller Remover/Installer</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Water Pump Socket</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Water Sensor Wrench</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Wheel Bearing Locknut Socket Set</td>
<td>50, 71</td>
<td></td>
</tr>
<tr>
<td>Wheel Dollies</td>
<td>84, 186, 210</td>
<td></td>
</tr>
<tr>
<td>Wheel Loader &amp; Tipper</td>
<td>82, 189</td>
<td></td>
</tr>
<tr>
<td>Wheel Separator</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Wheel Step</td>
<td>185, 209</td>
<td></td>
</tr>
<tr>
<td>Wheel Stud</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Wheel Stud Service Kit</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Wheel Tipper</td>
<td>82, 189, 190, 210</td>
<td></td>
</tr>
<tr>
<td>Windshield Spray Nozzle Needle</td>
<td>95, 114</td>
<td></td>
</tr>
<tr>
<td>Wiper Puller</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Wire Connector Tool Set</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Wire Crimpers</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Wire Cutters</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Wire Drill Guide Set, SAE &amp; Metric Set</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Wire Loom Threading Kit</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Wire Pulling Tool</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Wire Stripper</td>
<td>87, 102</td>
<td></td>
</tr>
<tr>
<td>Wire Twist Pliers</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Work lights</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>Wrenches, Oil Filter</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>MOTORCYCLE / POWERSPORTS ALPHABETICAL INDEX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjustable Primary Locking Bar</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Alignment Tool, Clutch</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Aluminum Vice Inserts</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>Angled Crimping Pliers</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>ATV Lift</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Axle Tool</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ball Hone Set</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>Ball Joint Separator</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Ball Joint Service Kit</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Battery Terminal Wrench</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Bearing and Puller Set</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Bearing Driver Set</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Belt Tension Gauge</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Bit Socket Sets</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Blind Hole Bearing Puller</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Blind Hole Puller Set</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Brake Bleeder</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Brake Bleeder Hose</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Brake Caliper Spreader</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Brake Fluid Tester</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Brake Piston Removal Locking Piers</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Brass Hammer and Punch Set</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Brass Punch Set</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Brush, Chain</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Bushing Driver Set</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cam Chain Tensioner Unloader Tool</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>Cam/Crank Locking Tool</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>C-Frame Nut Splitter</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>C-Frame Press</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Chain Alignment Tool</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Chain Breaker and Riveting Tool Kit</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Chain Brush</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Chain Master Link Clip Tool</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Chain Tensioner</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Clamp Pliers</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>Clutch Alignment Tool</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Clutch Compressor Tool</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Clutch Holding Tool</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Clutch Holding Wrench</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Clutch Hub and Alternator Puller</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Clutch Puller</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Clutch Spider Nut Driver</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Clutch Spider Nut Socket</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Clutch Spring Compressor Tool</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Coil Spring Compressor Locking Pliers</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Compression Tester Kit</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>Cooling System Pressure Tester</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Crimping Pliers</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>CV Boot Clamp Cutter</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>CV Joint Banding Tool and Cutter</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Cylinder Leakage Tester Tool</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>Cylinder Snap-Ring Pliers</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Torque Wrenches</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Drain Plug Tool</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Drive Clutch Holding Fixture</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Drive Clutch Puller</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Dual End Wire Holder</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td><strong>F</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flange Puller</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Flange Puller Set</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Flywheel Puller</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Flywheel Puller Kit</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Flywheel Socket Set</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Fork Cap &amp; Compression Valve Socket Set</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Fork Spring Compressor Kit</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Front Fork &amp; Shock Vice</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Fuel Injection Service Kit</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Fuel Injection Shradr Fitting</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Fuel Line Disconnects</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Fuel Pressure Gauge Kit</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Funnel</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td><strong>H</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hammer and Punch Set</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Heat Shrink Tubing Set</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Heavy Duty Flywheel Puller</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Heavy Duty Pulley Holder</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Heavy Duty Valve Spring Compressor</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Hex Axle Tool</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Holding Fixture</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>Horseshoe Lock Ring Pliers</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Hose Clamp Pliers Set</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Hose Cutter</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Hose Pinch Off Pliers</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Hose &amp; PVC Cutter</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Hose Removal Tool</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Hydraulic Puller Sets</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td><strong>I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition Switch Housing Alignment Tool</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Impact Drivers</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td><strong>L</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lights</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>Line Fluid Stopper Kit</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Locking Bar</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Lock Ring Pliers</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetic Clamp Wire Holder</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Magnetic/Claw Pick Up Tool</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Magnetic Tray</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Master Cylinder Snap-Ring Pliers</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Master Torx Bit Socket Sets</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Mini Pick and Hook Set</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Mini Snap Ring Pliers Set</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>Mirror and Magnet Set</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>Motorcycle Lift</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Multi Purpose C-Frame Press</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Multi-Purpose Scissors</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noid Light</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td><strong>O</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Filter Ring</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Oil Filter Socket</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Oil Filter Wrench</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Outside Thread Chaser</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pick &amp; Hook Set</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>Pick Up Tool</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Pilot Bearing Puller</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Piston Ring Compressor Set</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Piston Ring Expander Pliers</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Power Driver Socket Extensions</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Pressure Beam Bearing Splitter Kit</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Primary Drive Clutch Puller</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Primary Drive Locking Tool</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Profile Gauge</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Pry Bars</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Pry Bar Set</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>Puller/Bearing Separator</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Puller/Bearing Separator Set</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Puller, Grip-O-Matic</td>
<td>145</td>
<td></td>
</tr>
</tbody>
</table>
SPECIALTY TOOLS

NUMERICAL INDEX

0100. . . . . . . . . . . . . . . . . . . 111

1065. . . . . . . . . . . . . . . . . .  126

1158 . . . . . . . . . . . . . . . . . .  128

1349. . . . . . . . . . . . . . . . . . . 111

0200. . . . . . . . . . . . . . . . . . . 111

1066. . . . . . . . . . 126, 135, 136

1165 . . . . . . . . . . . . . . . . . .  127

1505B. . . . . . . . . . . . . 182, 207

0300. . . . . . . . . . . . . . . . . . . 111

1067 . . . . . . . . . . . . . . . . . .  126

1166 . . . . . . . . . . 127, 135, 136

1507B. . . . . . . . . . . . . 182, 207

0400. . . . . . . . . . . . . . . . . . . 111

1070. . . . . . . . . . 126, 135, 136

1170. . . . . . . . . . 128, 134, 136

1510B. . . . . . . . . . . . . 182, 207

0500. . . . . . . . . . . . . . . . . . . 111

1071. . . . . . . . . . . . . . . . . . . 126

1171. . . . . . . . . . . . . . . . . . .  128

1511B. . . . . . . . . . . . . .182, 207

0600. . . . . . . . . . . . . . . . . . . 111

1072 . . . . . . . . . . . . . . . . . .  126

1172. . . . . . . . . . . . . . . . . . .  128

1512. . . . . . . . . . . . . . . 182, 207

464. . . . . . . . . . . . . . . 130, 146

1073 . . . . . . . . . . . . . . . . . .  126

1173. . . . . . . . . . . . . . . . . . .  128

1513B . . . . . . . . . . 99, 194, 221

465. . . . . . . . . . . . . . . 130, 146

1074 . . . . . . . . . . 126, 135, 136

1174. . . . . . . . . . . . . . . . . . .  128

1515B . . . . . . . . . . 99, 194, 221

518 . . . . . . . . . . . 133, 134, 146

1075 . . . . . . . . . . . . . . . . . .  126

1176. . . . . . . 128, 129, 134, 136

1517B . . . . . . . . . . 99, 194, 221

522 . . . . . . . . . . . . . 49, 53, 132

1076 . . . . . . . . . . . . . . . . . .  126

1177. . . . . . .  70, 128, 130, 134

1519B . . . . . . . . . . 99, 194, 211

525 . . . . . . . . . . . . 12, 133, 145

1076 . . . . . . . . . . . . . . 135, 136

1178 . . . . . . . . . . . . . . . . . .  129

1520 . . . . . . . . . . . . . 180, 200

679. . . . . . . . . . . 127, 132, 136

1080. . . . . . . . . . 126, 135, 136

1179 . . . . . . . . . . . . . . . . . .  129

1521A . . . . . . . . . . . . . . . . . 202

680. . . . . . . . . . . . . . .  127, 136

1100 . . . . . . . . . . . . . . . . . .  124

1180 . . . . . . . . . . . . . . . . . .  132

1522A . . . . . . . . . . . . . 179, 202

714 . . . . . . . . . . . . . . . . 111, 145

1101. . . . . . . . . . . . . . . 124, 134

1181 . . . . . . . . . . . . . . . 70, 130

1526A. . . . . . . . . . . . . . . . . 206

885. . . . . . . . . . . . . . . . 49, 106

1102 . . . . . . . . . . . . . . . . . .  124

1182 . . . . . . . . . . . . . . . . . .  132

1532A. . . . . . . . . . . . . . . . . 205

898A. . . . . . . . . . . . . . . . . . .  97

1103 . . . . . . . . . . . . . . . . . .  124

1183 . . . . . . . . . . . . . . . . . .  132

1533A. . . . . . . . . . . . . . . . . 205

927 . . . . . . . . . . . 124, 132, 134

1104 . . . . . . . . . . 124, 126, 134

1184 . . . . . . . . . . . . . . . . . .  130

1534A . . . . . . . . . . . . . . . . . 209

938. . . . . . . . . . . . . . . 124, 134

1105 . . . . . . 124, 126, 135, 136

1200. . . . . . . . . . . . . . . . . .  163

1536A . . . . . . . . . . . . . . . . . 206

939. . . . . . . . . . . . . . . . . . .  124

1106 . . . . . . . . . . 124, 126, 136

1201 . . . . . . . . . . . . . . . . . .  163

1540 . . . . . . . . . . . . . . 181, 208

1020. . . . . . . . . . . . . . . . . .  122

1107. . . . . . . . . . 124, 126, 136

1202. . . . . . . . . . . . . . . . . .  163

1543 . . . . . . . . . . . . . . 186, 210

1021 . . . . . . . . . . . . . . . . . .  122

1108 . . . . . . . . . . . . . . 124, 126

1203. . . . . . . . . . . . . . . . . .  163

1545 . . . . . . . . . . . . . . 155, 209

1022. . . . . . . . . . . . . . 122, 134

1109 . . . . . . . . . . 124, 126, 136

1205. . . . . . . . . . . . . . . . . .  163

1546. . . . . . . . . . . . . . . . . . 205

1023. . . . . . . . . . . 70, 122, 130

1110. . . . . . . . . . . . . . . 124, 126

1219 . . . . . . . . . . . . . . . . . .  163

1547 . . . . . . . . . . . . . . . . . . 205

1024. . . . . . . . . . . . . . 122, 134

1111. . . . . . . 124, 126, 135, 136

1221. . . . . . . . . . . . . . . . . . .  163

1560. . . . . . . . . . . . . . . . . . . 111

1025. . . . . . . . . . . . . . 122, 136

1112. . . . . . . . . . . . . . . . . . .  126

1222 . . . . . . . . . . . . . . . . . .  163

1565 . . . . . . . . . . . . . . . . . . . 111

1026. . . . . . . . . . . . . . 122, 134

1113. . . . . . . . . . . . . . . 126, 135

1223 . . . . . . . . . . . . . . . . . .  163

1569. . . . . . . . . . . . . . . . . . . 111

1027 . . . . . . . 70, 122, 130, 136

1113. . . . . . . . . . . . . . . . . . .  136

1225 . . . . . . . . . . . . . . . . . .  163

1572 . . . . . . . . . . . . . . . . . . 209

1028. . . . . . . . . . . . . . . 52, 130

1120 . . . . . . . . . . . . . . . . . . . 111

1227 . . . . . . . . . . . . . . . . . .  163

1577 . . . . . . . . . . . . . . . . . . .  37

1031 . . . . . . . . . . . . . . . 52, 130

1121. . . . . . . . . . . 127, 132, 134

1230. . . . . . . . . . . . . . . . . .  163

1577 . . . . . . . . . . . . . .  174, 215

1035. . . . . . . . . . 122, 134, 136

1122. . . . . . . . . . . . 70, 127, 130,
. . . . . . . . . . . . . . 132, 134, 136

1230PB . . . . . . . . . . . . . . . . 121

1580 . . . . . . . . . . . . . . . . . . 209

1232 . . . . . . . . . . . . . . . . . .  163

1582A. . . . . . . . . . . . . . . . . 205

1123. . . . . . . . . . . 127, 132, 134,
. . . . . . . . . . . . . . . . . . .136, 219

1233 . . . . . . . . . . . . . . . . . .  163

1585A . . . . . . . . . . . . . . . . .  201

1240. . . . . . . . . . . . . . . . . .  163

1590 . . . . . . . . . . . . . . 180, 200

1242 . . . . . . . . . . . . . . . . . .  163

1591B . . . . . . . . . . . . 179, 202

1243 . . . . . . . . . . . . . . . . . .  163

1595 . . . . . . . . . . . . . . 180, 200

1036. . . . . . . . . . . . . . 123, 134
1037 . . . . . . 122, 134, 136, 145
1038. . . . . . . . . . . . . . . . . .  123
1039. . . . . . . . . . 123, 134, 136
1040. . . . . . . . . . . . . . . . . .  123
1041 . . . . . . . . . . . . . . 123, 136
1042. . . . . . . . . . . . . . . . . .  123
1043. . . . . . . . . . . . . . . . . .  123

1125. . . . . . . . . . . . . . . . . . . . 111
1126 . . . . . . . . . . 127, 136, 219
1127. . . . . . . . . . . 127, 135, 136
1128 . . . . . . . . . . . . . .  127, 136

1245 . . . . . . . . . . . . . . . . . .  163

1596. . . . . . . . . . . . . . . . . . 205

1246 . . . . . . . . . . . . . . . . . .  163

1620. . . . . . . . . . . . . . . . . .  134

1250. . . . . . . . . . . . . . . . . .  163

1630 . . . . . . . . . . . . . . . . .  118

1252 . . . . . . . . . . . . . . . . . .  164

1675 . . . . . . . . . . . . . . . . . .  134

1044. . . . . . . . . . . . . . . . . .  123

1130 . . . . . . . . . . 127, 132, 134,
. . . . . . . . . . . . . . . . . . .135, 136

1045. . . . . . . . . . . . . . . . . .  123

1131. . . . . . . . . . . . . . . . . . . . 111

1253 . . . . . . . . . . . . . . . . . .  164

1676 . . . . . . . . . . . . . . . . . .  134

1046. . . . . . . . . . . . . . . . . .  123

1150 . . . . . . . . . . . . . . . . . .  127

1254 . . . . . . . . . . . . . . . . . .  164

1677 . . . . . . . . . . . . . . . . . .  134

1047 . . . . . . . . . . . . . . . . . .  123

1151. . . . . . . . . . . . . . . . . . .  127

1255 . . . . . . . . . . . . . . . . . .  164

1679 . . . . . . . . . . . . . . . . . .  136

1152. . . . . . . . . . . . . . .  127, 134

1256 . . . . . . . . . . . . . . . . . .  164

1680. . . . . . . . . . . . . . . . . .  136

1153. . . . . . . . . . . . . . . . . . .  127

1266. . . . . . . . . . . . . . . . . .  162

1681 . . . . . . . . . . . . . . . . . .  136
1682. . . . . . . . . . . . . . . . . .  136

1048. . . . . . . . . . . . . . . . . .  123
1049. . . . . . . . . . . . . . . . . .  123

1154 . . . . . . . . . . 127, 135, 136

1320. . . . . . . . . . . . . . . . . . . 111

1060. . . . . . . . . . . . . . . . . .  126

1155. . . . . . . . . . . 100, 128, 129

1325 . . . . . . . . . . . . . . . . . . . 111

1683. . . . . . . . . . . . . . . . . .  136

1062. . . . . . . . . . 126, 135, 136

1156 . . . . . . . . . . . . . . 100, 128

1329 . . . . . . . . . . . . . . . . . . . 111

1688. . . . . . . . . . . . . . . . . .  135

1063. . . . . . . . . . . . . . . . . .  126

1157. . . . . . . . . . . . . . . . . . .  128

1340. . . . . . . . . . . . . . . . . . . 111

1689. . . . . . . . . . . . . . . . . .  135

1345 . . . . . . . . . . . . . . . . . . . 111

1690. . . . . . . . . . . . . . . . . .  135

1050. . . . . . . . . . . . . . . . . .  123

1064. . . . . . . . . . . . . . . . . .  126

244

1124. . . . . . . . . . . . . . . 127, 219

otctools.com


<table>
<thead>
<tr>
<th>1723</th>
<th>1825</th>
<th>1920</th>
<th>1982M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1725</td>
<td>1826</td>
<td>1921</td>
<td>2002</td>
</tr>
<tr>
<td>1726A</td>
<td>1826A</td>
<td>1922</td>
<td>2004</td>
</tr>
<tr>
<td>1728</td>
<td>1833</td>
<td>1923</td>
<td>2004A</td>
</tr>
<tr>
<td>1733A</td>
<td>1834</td>
<td>1924</td>
<td>2005</td>
</tr>
<tr>
<td>1734A</td>
<td>1845</td>
<td>1925</td>
<td>2006</td>
</tr>
<tr>
<td>1735A</td>
<td>1846A</td>
<td>1926</td>
<td>2007</td>
</tr>
<tr>
<td>1735B</td>
<td>1847</td>
<td>1927</td>
<td>2008</td>
</tr>
<tr>
<td>1736A</td>
<td>1850</td>
<td>1928</td>
<td>2009</td>
</tr>
<tr>
<td>1740</td>
<td>1851</td>
<td>1929</td>
<td>2015A</td>
</tr>
<tr>
<td>1741</td>
<td>1854</td>
<td>1930</td>
<td>2016A</td>
</tr>
<tr>
<td>1742</td>
<td>1857</td>
<td>1931</td>
<td>2018A</td>
</tr>
<tr>
<td>1744</td>
<td>1858</td>
<td>1932</td>
<td>2036PB</td>
</tr>
<tr>
<td>1745</td>
<td>1858-1P</td>
<td>1933</td>
<td>2300</td>
</tr>
<tr>
<td>1746</td>
<td>1870</td>
<td>1934</td>
<td>2304</td>
</tr>
<tr>
<td>1748</td>
<td>1872</td>
<td>1935</td>
<td>2310</td>
</tr>
<tr>
<td>1749</td>
<td>1877</td>
<td>1936</td>
<td>2326</td>
</tr>
<tr>
<td>1750</td>
<td>1879</td>
<td>1937</td>
<td>2332</td>
</tr>
<tr>
<td>1750A</td>
<td>1880</td>
<td>1938</td>
<td>2340</td>
</tr>
<tr>
<td>1757</td>
<td>1881</td>
<td>1939</td>
<td>2352</td>
</tr>
<tr>
<td>1758</td>
<td>1882</td>
<td>1940</td>
<td>2357</td>
</tr>
<tr>
<td>1763</td>
<td>1888</td>
<td>1941</td>
<td>2359</td>
</tr>
<tr>
<td>1764</td>
<td>1899</td>
<td>1944</td>
<td>2423</td>
</tr>
<tr>
<td>1767</td>
<td>1901</td>
<td>1945A</td>
<td>2423</td>
</tr>
<tr>
<td>1768</td>
<td>1902</td>
<td>1946A</td>
<td>2424</td>
</tr>
<tr>
<td>1769A</td>
<td>1903</td>
<td>1947A</td>
<td>2497</td>
</tr>
<tr>
<td>1770A</td>
<td>1904</td>
<td>1948A</td>
<td>2510A</td>
</tr>
<tr>
<td>1774B</td>
<td>1905</td>
<td>1949A</td>
<td>2549</td>
</tr>
<tr>
<td>1778B</td>
<td>1906</td>
<td>1950</td>
<td>2550</td>
</tr>
<tr>
<td>1779B</td>
<td>1907</td>
<td>1951</td>
<td>2551</td>
</tr>
<tr>
<td>1780</td>
<td>1908</td>
<td>1952</td>
<td>2560PB</td>
</tr>
<tr>
<td>1781B</td>
<td>1909</td>
<td>1953</td>
<td>3005E</td>
</tr>
<tr>
<td>1783</td>
<td>1910</td>
<td>1954</td>
<td>3054E</td>
</tr>
<tr>
<td>1784D</td>
<td>1912</td>
<td>1955</td>
<td>3052S</td>
</tr>
<tr>
<td>1788B</td>
<td>1913</td>
<td>1956</td>
<td>3053S</td>
</tr>
<tr>
<td>1793A</td>
<td>1914</td>
<td>1957</td>
<td>4000A</td>
</tr>
<tr>
<td>1794A</td>
<td>1915</td>
<td>1958</td>
<td>4004</td>
</tr>
<tr>
<td>1796</td>
<td>1916</td>
<td>1959</td>
<td>4008</td>
</tr>
<tr>
<td>1805</td>
<td>1917</td>
<td>1960M</td>
<td>4009</td>
</tr>
<tr>
<td>1806</td>
<td>1918</td>
<td>1960M</td>
<td>4012A</td>
</tr>
<tr>
<td>1812</td>
<td>1919</td>
<td>1961</td>
<td>4016</td>
</tr>
<tr>
<td>1813</td>
<td>1920</td>
<td>1961M</td>
<td>4017</td>
</tr>
<tr>
<td>1814</td>
<td>1921</td>
<td>1962</td>
<td>4020</td>
</tr>
<tr>
<td>1819</td>
<td>1922</td>
<td>1962M</td>
<td>4021</td>
</tr>
<tr>
<td>1820</td>
<td>1923</td>
<td>1963</td>
<td>4028</td>
</tr>
<tr>
<td>1821</td>
<td>1924</td>
<td>1975</td>
<td>4022</td>
</tr>
<tr>
<td>1822</td>
<td>1925</td>
<td>1976</td>
<td>4025</td>
</tr>
<tr>
<td>1823A</td>
<td>1926</td>
<td>1977</td>
<td>4026</td>
</tr>
<tr>
<td>1824A</td>
<td>1927</td>
<td>1978</td>
<td>4031</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4031-220V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4032</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4033</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4033-220V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4036</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4036-220V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4044</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4046</td>
</tr>
<tr>
<td>4814</td>
<td>88, 151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4818</td>
<td>98, 112, 152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4822</td>
<td>88, 151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4838</td>
<td>15, 139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4839</td>
<td>15, 138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4840</td>
<td>15, 139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4842</td>
<td>15, 139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4844</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4845</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4846</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4847A</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4848</td>
<td>36, 48, 138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4849</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4850</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4851</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4852</td>
<td>146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4853</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4856</td>
<td>146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4858</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4860</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-1</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-2</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-3</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-4</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-5</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4864-6</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4866</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4870</td>
<td>151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4875</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4876</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4878</td>
<td>151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4880</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4882</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4884</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4886</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4888</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4889</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4891</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4892</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4896</td>
<td>138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4898</td>
<td>138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4948</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4964</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4965</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4966</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4968</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4970</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4971</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4972</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4974</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4975</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4978</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4979</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4980</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4984</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4985</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4986</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4987</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4988</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4989</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4990</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4991</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4992</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4995</td>
<td>147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5015A</td>
<td>180, 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5017A</td>
<td>186, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5018A</td>
<td>180, 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5019A</td>
<td>179, 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5020</td>
<td>18, 160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5021</td>
<td>18, 160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5022</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5024</td>
<td>171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5025</td>
<td>31, 198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5028</td>
<td>128, 162</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5029</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5030</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5035</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5038</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5039</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5040</td>
<td>171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5042</td>
<td>171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5043</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5044</td>
<td>164, 165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5045</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5046</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5047</td>
<td>82, 166, 189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5047LP</td>
<td>82, 166, 189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5048</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5049</td>
<td>145, 164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5051</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5052</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5053</td>
<td>168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5054</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5055</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5056</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5057</td>
<td>67, 169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5059</td>
<td>166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5060</td>
<td>31, 161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5062</td>
<td>171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5063</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5064</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5065</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5066</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5068</td>
<td>58, 168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5070</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5071</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5072</td>
<td>170</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5077A</td>
<td>37, 174, 215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5078</td>
<td>179, 201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5079</td>
<td>168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5080A</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5081</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5082</td>
<td>190, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5085</td>
<td>169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5086</td>
<td>99, 194, 221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5089</td>
<td>29, 169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5090</td>
<td>186, 209</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5091</td>
<td>179, 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5093B</td>
<td>181, 204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5095A</td>
<td>84, 184, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5096A</td>
<td>84, 186, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5097</td>
<td>37, 174, 215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5100</td>
<td>84, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5105B</td>
<td>84, 186, 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5130</td>
<td>179, 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5180</td>
<td>153, 216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5190A</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5191</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5192</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5200</td>
<td>204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5201A</td>
<td>205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5203A</td>
<td>205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5213A</td>
<td>185, 220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5213TA</td>
<td>185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5213TA</td>
<td>220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5214</td>
<td>181, 208</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5221A</td>
<td>185, 220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5237</td>
<td>201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5267</td>
<td>180, 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5268</td>
<td>186, 203</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5269</td>
<td>186, 203</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5280</td>
<td>197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5281</td>
<td>198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5285</td>
<td>180, 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5286</td>
<td>.196</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUMERICAL INDEX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIALTY TOOLS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6188</td>
<td>103, 104, 153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6191</td>
<td>103, 104, 153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6192</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6193</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6198</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6260</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6266</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6274</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6275</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6284</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6290A</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6293</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6295</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6296</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6297</td>
<td>56, 66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6299</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6466</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6467</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6468</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6469</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6470</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6471</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6472</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6473</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6474</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6475</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6476</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6477</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6478</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6479</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6480</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6481</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6482</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6483</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6484</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6485</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6486A</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6487</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6488</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6489</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6492</td>
<td>18, 193</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6494</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6495</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6496</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6497</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6498</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6500</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6501</td>
<td>128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6502</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6503</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6504</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6505</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6506</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6508</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6509</td>
<td>28, 92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6511</td>
<td>28, 48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6512</td>
<td>32, 48, 77, 91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6514</td>
<td>32, 48, 77, 91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6515</td>
<td>32, 78, 91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6516</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6517</td>
<td>28, 48, 92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-1</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-2</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-3</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-4</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-5</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-6</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529-10</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6529MAN-17</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6530</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6531</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6532</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6533</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6534</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6535</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6535</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539-1</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539-2</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539-3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539-4</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6539-10</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6540</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6541</td>
<td>52, 70, 128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6542</td>
<td>71, 130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6550</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6550MAN-13</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6550PRO</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6553</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6554</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6556</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6559</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6574</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6574-1</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575-1</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575-2</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575-2C</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575-3</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575-4</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575H</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6575MAN-09</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6576</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6576S</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6577</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6578</td>
<td>67, 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6579</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6582</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6583</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6587</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6589</td>
<td>16, 140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6591-1</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6593</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6594</td>
<td>6, 29, 36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6595</td>
<td>6, 36, 161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6596</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6599</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6601</td>
<td>50, 72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6602</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6603A</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6604</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6611</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6612</td>
<td>51, 72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6613</td>
<td>11, 157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6614</td>
<td>132</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6616</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6617</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6627</td>
<td>97, 129</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6637</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6637ST</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6642</td>
<td>95, 148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6644</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6646</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6647</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6648</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6649</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6651</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6652</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6653</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6660</td>
<td>6, 160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6667</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6668</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6673</td>
<td>14, 144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6675</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6676</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6677</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6678</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6679</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6680</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6681</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6682</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6683</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6684</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6685</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6686</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6687</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6688</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6689</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6690</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6690-1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6691</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6694</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6695</td>
<td>58, 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6697</td>
<td>58, 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6698</td>
<td>58, 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6702</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6703</td>
<td>26, 36, 48, 75, 92, 150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6703-1</td>
<td>26, 36, 48, 75, 92, 150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6703-2</td>
<td>26, 36, 48, 75, 92, 150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6703-3</td>
<td>26, 36, 48, 75, 92, 150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6706</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6707</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6708</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6709</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6710</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6711</td>
<td>90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6712</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6713</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6714</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6715</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6716</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6719-1</td>
<td>106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720-1</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720-2</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720-3</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720-4</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6720-4</td>
<td>91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6722</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>201917</td>
<td>72, 173</td>
<td>213015</td>
<td>165</td>
</tr>
<tr>
<td>201920</td>
<td>72</td>
<td>213299</td>
<td>22, 24</td>
</tr>
<tr>
<td>201923</td>
<td>136, 219, 227</td>
<td>213896</td>
<td>229</td>
</tr>
<tr>
<td>202621</td>
<td>170</td>
<td>214903</td>
<td>111</td>
</tr>
<tr>
<td>202817</td>
<td>106, 158, 193</td>
<td>215009</td>
<td>181, 204</td>
</tr>
<tr>
<td>204141</td>
<td>170</td>
<td>215128</td>
<td>162</td>
</tr>
<tr>
<td>204928</td>
<td>162</td>
<td>215703</td>
<td>219</td>
</tr>
<tr>
<td>205049</td>
<td>192, 214</td>
<td>215844</td>
<td>171</td>
</tr>
<tr>
<td>205050</td>
<td>192, 214</td>
<td>216884</td>
<td>106, 158</td>
</tr>
<tr>
<td>205058</td>
<td>183, 211</td>
<td>216884</td>
<td>193</td>
</tr>
<tr>
<td>205059</td>
<td>183, 211</td>
<td>217687</td>
<td>183, 211</td>
</tr>
<tr>
<td>205060</td>
<td>183, 211</td>
<td>217791</td>
<td>18, 160</td>
</tr>
<tr>
<td>205061</td>
<td>183, 211</td>
<td>218098</td>
<td>183, 211</td>
</tr>
<tr>
<td>205101</td>
<td>183, 211</td>
<td>218099</td>
<td>183, 211</td>
</tr>
<tr>
<td>205377</td>
<td>129</td>
<td>218163</td>
<td>171</td>
</tr>
<tr>
<td>205378</td>
<td>9, 129</td>
<td>218174</td>
<td>180, 200</td>
</tr>
<tr>
<td>205767</td>
<td>170</td>
<td>218504</td>
<td>183, 211</td>
</tr>
<tr>
<td>206386</td>
<td>183, 211</td>
<td>221378</td>
<td>178</td>
</tr>
<tr>
<td>206391</td>
<td>6, 184, 212</td>
<td>221476</td>
<td>66</td>
</tr>
<tr>
<td>206392</td>
<td>184, 212</td>
<td>222029</td>
<td>110</td>
</tr>
<tr>
<td>206437</td>
<td>125, 177</td>
<td>222030</td>
<td>110</td>
</tr>
<tr>
<td>206457</td>
<td>178</td>
<td>222618</td>
<td>194, 211</td>
</tr>
<tr>
<td>206459</td>
<td>177, 178</td>
<td>223518</td>
<td>168</td>
</tr>
<tr>
<td>206629</td>
<td>183, 211</td>
<td>223516</td>
<td>203</td>
</tr>
<tr>
<td>206803</td>
<td>106, 158, 193</td>
<td>300871</td>
<td>229</td>
</tr>
<tr>
<td>207025</td>
<td>177, 178</td>
<td>302018</td>
<td>177</td>
</tr>
<tr>
<td>207026</td>
<td>177, 178</td>
<td>302019</td>
<td>177</td>
</tr>
<tr>
<td>207027</td>
<td>177, 178</td>
<td>302021</td>
<td>177</td>
</tr>
<tr>
<td>207030</td>
<td>177, 178</td>
<td>302023</td>
<td>177</td>
</tr>
<tr>
<td>207031</td>
<td>177, 178</td>
<td>302024</td>
<td>177</td>
</tr>
<tr>
<td>207039</td>
<td>177, 178</td>
<td>302025</td>
<td>178</td>
</tr>
<tr>
<td>207436</td>
<td>230</td>
<td>302026</td>
<td>177, 178</td>
</tr>
<tr>
<td>207561</td>
<td>169</td>
<td>302027</td>
<td>177, 178</td>
</tr>
<tr>
<td>208160</td>
<td>183, 211</td>
<td>302028</td>
<td>177</td>
</tr>
<tr>
<td>208349</td>
<td>178</td>
<td>302029</td>
<td>177</td>
</tr>
<tr>
<td>208350</td>
<td>178</td>
<td>302030</td>
<td>177, 178</td>
</tr>
<tr>
<td>208369</td>
<td>172</td>
<td>302031</td>
<td>177, 178</td>
</tr>
<tr>
<td>208370</td>
<td>172</td>
<td>302032</td>
<td>177, 178</td>
</tr>
<tr>
<td>208406</td>
<td>225</td>
<td>302249</td>
<td>192, 214</td>
</tr>
<tr>
<td>208629</td>
<td>173</td>
<td>302340</td>
<td>163</td>
</tr>
<tr>
<td>208675</td>
<td>163</td>
<td>302401</td>
<td>177</td>
</tr>
<tr>
<td>209199</td>
<td>108</td>
<td>302482</td>
<td>163, 227</td>
</tr>
<tr>
<td>209200</td>
<td>108</td>
<td>302483</td>
<td>227</td>
</tr>
<tr>
<td>209201</td>
<td>110</td>
<td>302592</td>
<td>177, 178</td>
</tr>
<tr>
<td>211051</td>
<td>111</td>
<td>302593</td>
<td>177, 178</td>
</tr>
<tr>
<td>211407</td>
<td>216</td>
<td>302595</td>
<td>177, 178</td>
</tr>
<tr>
<td>213013</td>
<td>165</td>
<td>302941</td>
<td>192, 214</td>
</tr>
<tr>
<td>213014</td>
<td>165</td>
<td>303785</td>
<td>227</td>
</tr>
<tr>
<td>Page Numbers</td>
<td>Numerical Index</td>
<td>Specialty Tools</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>27, 28, 48</td>
<td>519154</td>
<td>otctools.com</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>519155</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27, 42, 47</td>
<td>519156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27, 42, 47</td>
<td>519157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>519158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27, 48</td>
<td>519159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>519378</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522888</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522889</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522890</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522892</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522893</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522894</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522896</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522897</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522899</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522900A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>522902</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 4</td>
<td>525216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 4</td>
<td>525217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 4</td>
<td>525218</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11, 157</td>
<td>526908-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527046</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527052</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527056</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527057</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>527058</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7, 8</td>
<td>527061-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>527061-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>528150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>528766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>528767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>528768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23, 24</td>
<td>528769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>528770</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>528771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>528772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>528773</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>528774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>528776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528853</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528856</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528858</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528859</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528863</td>
<td></td>
<td></td>
</tr>
<tr>
<td>183, 211</td>
<td>528866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>529636</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>529637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>529638</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>532174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>532195</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>535936</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7, 8</td>
<td>536172</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536176</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536178</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7, 8</td>
<td>536186</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7, 8</td>
<td>536187</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536254</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536255</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>536265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536582</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536583</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536584</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536585</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536587</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536589</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536594</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536595</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536608</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536611</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>536613</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>537757-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>537757-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>537757-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>537757-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>229</td>
<td>538592</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>540231</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>540232</td>
<td></td>
<td></td>
</tr>
<tr>
<td>184, 208</td>
<td>543751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>184, 208</td>
<td>543752</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>543885</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>543887</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23, 24</td>
<td>549578</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>549579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>549596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>549597</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>549598</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>552948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>553516</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>553913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>553915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>553990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>553991</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>553993</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>554654</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>556689</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557282</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97, 129</td>
<td>557479</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97, 129</td>
<td>557480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557511</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557553</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>557554</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>558382</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558569</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558570</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558572</td>
<td></td>
<td></td>
</tr>
<tr>
<td>197</td>
<td>558573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>179, 202</td>
<td>561949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>196</td>
<td>563197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>567611</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>567613</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>567614</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>567617</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>567618</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WHAT WE LIKE MOST ABOUT TECHNICIANS IS THEIR WORK ETHIC. Technicians are problem solvers who aren’t afraid of sweat on their brow and grease on their hands. They provide high quality services that demand high quality tools. When they need a reliable tool, they know they can depend on OTC tools to deliver.

Owatonna Tool Company for the long haul — proudly designing and manufacturing American specialty service tools, diagnostics and shop equipment since 1925.

OTC TOOLS ARE SOLD THROUGH DISTRIBUTORS, RESSELLERS AND RETAILERS. LEARN MORE AT OTCTOOLS.COM.

LOOKING FOR AN OTC PRODUCT?

OTC tools and equipment are sold through distribution partners, resellers and at retailers. Visit OTCtools.com to learn more.

WHERE TO BUY

**DISTRIBUTORS**

<table>
<thead>
<tr>
<th>U.S. &amp; Canada</th>
<th>U.S. &amp; Canada</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEDCO</strong></td>
<td><strong>ISN</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>PTM</strong></td>
<td><strong>Eagle Tool Works, Inc.</strong></td>
<td><strong>M</strong></td>
</tr>
<tr>
<td><strong>ACE TOOL CO.</strong></td>
<td><strong>J</strong></td>
<td><strong>Dologard Tool Company</strong></td>
</tr>
<tr>
<td><strong>Squee</strong></td>
<td><strong>62S</strong></td>
<td><strong>modern sales co</strong></td>
</tr>
</tbody>
</table>

**RETAIL**

<table>
<thead>
<tr>
<th>U.S. &amp; Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>amazon.com</strong></td>
</tr>
<tr>
<td><strong>NAPA TOOLS &amp; EQUIPMENT</strong></td>
</tr>
<tr>
<td><strong>O’Reilly AUTO PARTS</strong></td>
</tr>
<tr>
<td><strong>AutoZone</strong></td>
</tr>
<tr>
<td><strong>CARQUEST Tools &amp; Equipment</strong></td>
</tr>
<tr>
<td><strong>Advance Auto Parts</strong></td>
</tr>
<tr>
<td><strong>Myers Tool Supply</strong></td>
</tr>
<tr>
<td><strong>GRAINGER</strong></td>
</tr>
<tr>
<td><strong>Pep Boys</strong></td>
</tr>
<tr>
<td><strong>LORDCO AUTO PARTS</strong></td>
</tr>
<tr>
<td><strong>UNI-SELECT</strong></td>
</tr>
</tbody>
</table>

**MOBILE DISTRIBUTORS**

<table>
<thead>
<tr>
<th>U.S. &amp; Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAC Tools</strong></td>
</tr>
<tr>
<td><strong>MATCO TOOLS</strong></td>
</tr>
<tr>
<td><strong>CORNELL QUALITY TOOLS</strong></td>
</tr>
</tbody>
</table>

**HEAVY DUTY DISTRIBUTORS**

<table>
<thead>
<tr>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VIPAR</strong></td>
</tr>
<tr>
<td><strong>HDA TRUCK PRIDE</strong></td>
</tr>
<tr>
<td><strong>FleetPride</strong></td>
</tr>
</tbody>
</table>