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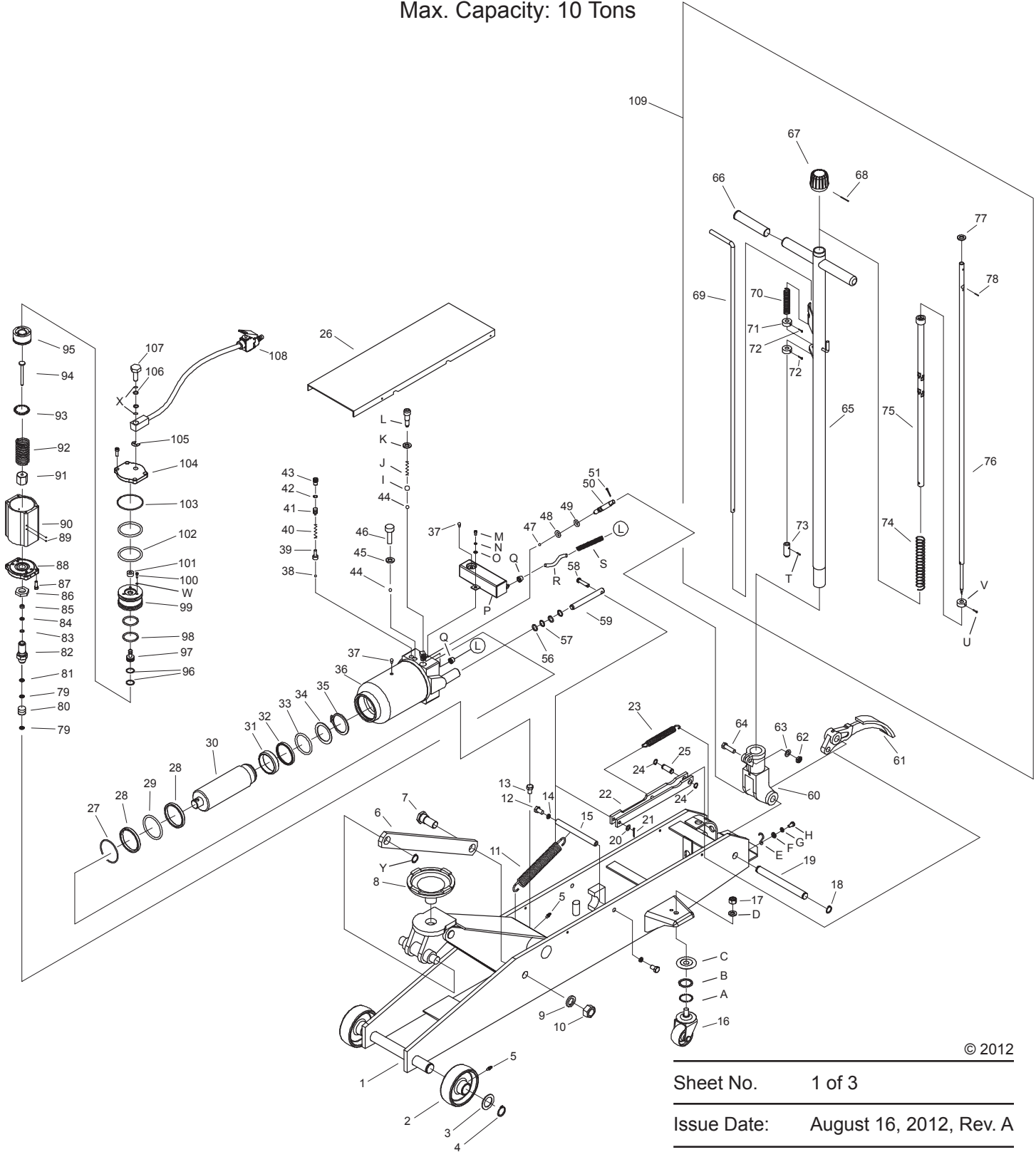
Form No. 565786

**Parts List &
 Operating Instructions
 for:**

1511B

Air-Assist Service Jack

Max. Capacity: 10 Tons



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Sheet No. 1 of 3

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Replacement Kit List

Item			Item			Item		
No.	Qty.	Description	No.	Qty.	Description	No.	Qty.	Description
520778 Wheel Kit			565775 Hydraulic Unit Kit			565779 Hydraulic Seal Kit		
2	1	Front wheel	27	1	Snap ring	27	1	Snap ring
3	1	Washer	28	2	Washer	28	2	Washer
4	1	Snap ring	29	1	O-ring	29	1	O-ring
5	1	Grease fitting	30	1	Piston rod	31	1	Piston ring
520796 Grease Fitting			31	1	Piston ring	32	1	Sealing washer
5	1	Grease fitting	32	1	Sealing washer	33	1	O-ring
565776 Leveling Arm Kit			33	1	O-ring	34	1	O-ring retainer
6	2	Rod link	34	1	O-ring retainer	35	1	Snap ring
7	2	Bolt	35	1	Snap ring	37	2	Oil filler plug
9	2	Lockwasher	36	1	Oil cylinder assy	42	1	Sealing washer
10	2	Nut	37	2	Oil filler plug	45	1	Copper washer
Y	2	Ring	38	1	Steel ball	48	1	O-ring
520780 Saddle			39	1	Ball seat	49	1	O-ring
8	1	Saddle	40	1	Spring	56	2	O-ring
520782 Lift Arm Spring Kit			41	1	Screw	57	2	Washer
11	1	Spring	42	1	Sealing washer	K	1	Copper washer
12	2	Bolt	43	1	Bolt	531864 Release Valve Kit		
14	2	Snap ring	44	1	Steel ball	47	1	Steel ball
15	1	Shaft	45	1	Copper washer	48	1	O-ring
565773 Caster Kit			46	1	Bolt	49	1	O-ring
16	1	Rear wheel	47	1	Steel ball	50	1	Release valve rod
17	2	Nut	48	1	O-ring	51	1	Pin
A	12	Steel ball	49	1	O-ring	520791 Foot Pedal		
B	19	Steel ball	50	1	Release valve rod	61	1	Pedal
C	1	Ball support	51	1	Pin	520792 Handle Retaining Kit		
D	1	Washer	56	2	O-ring	62	1	Nut
520790 Handle Pivot Kit			57	2	Washer	63	1	Washer
18	2	Snap ring	58	1	Pin	64	1	Bolt
19	1	Shaft	59	1	Cyl. pump plunger	524984 Handle Kit		
60	1	Handle socket	I	1	Steel ball	65	1	Handle
565777 Plunger/Connect Bar Kit			J	1	Spring	66	2	Grip
20	1	Washer	K	1	Copper washer	67	1	Knob
21	1	Pin	L	1	Bolt	68	1	Pin
22	1	Connecting bar	M	1	Bolt	69	1	Control rod
24	2	Snap ring	N	1	Washer	70	1	Spring
25	1	Shaft	O	1	Washer	71	2	Washer
56	2	O-ring	P	1	Oil box assy	72	2	Screw
57	2	Washer	Q	2	Nut	73	1	Rod joint
58	1	Pin	R	1	Hose	74	1	Spring
59	1	Cyl. pump plunger	S	1	Spring	75	1	U-joint assy
520793 Handle Return Spring			565778 Pump Hardware Kit			76	1	Convery rod
23	1	Spring	27	1	Snap ring	77	1	Washer
520788 Inspection Plate			35	1	Snap ring	78	1	Pin
26	1	Cover board	38	1	Steel ball	T	1	Pin
			39	1	Ball seat	U	1	Pin
			40	1	Spring	V	1	Washer
			41	1	Screw			
			42	1	Sealing washer			
			43	1	Bolt			
			44	2	Steel ball			
			45	1	Copper washer			
			46	1	Bolt			
			I	1	Steel ball			
			J	1	Spring			
			K	1	Copper washer			
			L	1	Bolt			

Replacement Kit List

Item			Item			Item		
No.	Qty.	Description	No.	Qty.	Description	No.	Qty.	Description
565772 Air Motor Kit			101	1	Air seal	106	2	O-ring
79	2	Copper washer	102	2	O-ring	X	2	Ring
80	1	Oil valve assy	103	1	O-ring	566225 Air Motor Hardware Kit		
81	1	Nylon gasket	104	1	Rear cover	82	1	Pump cylinder
82	1	Pump cylinder	105	1	Snap ring	86	1	Nut
83	1	Oil seal	106	2	O-ring	87	8	Bolt
84	1	Washer	107	1	Bolt	88	1	Front cover
85	1	Copper washer	108	1	Air valve assy	91	1	Nut
86	1	Nut	W	3	O-ring	92	1	Spring
87	8	Bolt	X	2	Ring	97	1	Air release rod
88	1	Front cover	565800 Air Motor Seal Kit			99	1	Piston body "B"
89	4	Steel ball	79	2	Copper washer	100	3	Bolt
90	1	Air pump housing	80	1	Oil valve assy	104	1	Rear cover
91	1	Nut	81	1	Nylon gasket	W	3	O-ring
92	1	Spring	83	1	Oil seal	565771 Air Hose/Air Valve Kit		
93	1	Washer	84	1	Washer	105	1	Snap ring
94	1	Cyl. pump plunger	85	1	Copper washer	106	2	O-ring
95	1	Piston body "A"	96	2	O-ring	107	1	Bolt
96	2	O-ring	98	2	O-ring	108	1	Air valve assy
97	1	Air release rod	102	2	O-ring	X	2	Ring
98	2	O-ring	103	1	O-ring			
99	1	Piston body "B"						
100	1	Bolt						

Safety Precautions

WARNING: To prevent personal injury or equipment damage,

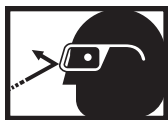


- Study, understand, and follow all instructions before operating this device.

- Wear eye protection that meets OSHA and ANSI Z87.1 standards.

- No alterations shall be made to this product.

- Before using the service jack to lift a vehicle, refer to the vehicle service manual for recommended lifting surfaces on the vehicle chassis.



- Inspect the jack before each use. Do not use the jack if it is damaged, altered, or in poor condition.

- Use the jack for lifting purposes only. Use approved safety stands to support the axles before working on the vehicle.



- Never exceed the rated lifting capacity of the jack.

- Use the jack on a hard, level surface. The jack must be free to roll without any obstructions while lifting or lowering the vehicle. The wheels of the vehicle must be in the straight-ahead position, and the hand brake must be released.

- Center the load on the jack saddle. Off-center loads can damage seals and cause jack failure.

- Lift only dead weight. Do not move the jack while it is supporting a vehicle.

- Stay clear of lifted loads. Use approved safety stands to support the axles before making repairs.

- Do not adjust the safety valve.

- Lower the jack slowly and carefully while watching the position of the jack saddle.

- Use only approved hydraulic fluid (Chevron AW Hydraulic Oil MV or equivalent). The use of alcohol, hydraulic brake fluid, or transmission oil could damage seals and result in jack failure.

- This guide cannot cover every situation. Always work with safety first.

Setup

Assemble the Handle

1. Loosen the bolt (Item 64) on the handle socket (60). NOTE: Item numbers refer to the parts list on page 1.
2. Insert the handle.
3. Tighten the bolt.

Air Bleed

Air can accumulate within a hydraulic system during shipment or after prolonged use. This trapped air causes the jack to respond slowly or feel "spongy." To remove the air, follow the instructions for both the manual pump and the air pump:

Manual Pump

1. Open the release valve by turning the release knob counterclockwise.
2. Pump the jack handle six full strokes.
3. Close the release valve by turning the release knob clockwise.
4. If the jack does not immediately respond to pumping the handle, repeat Steps 1–3.

Air Pump

1. Place the jack on a level surface.
2. Open the release valve by turning the release knob counterclockwise.
3. Run the air pump for 20 seconds, then close the release valve by turning the release knob clockwise.
4. Pump the jack pedal (Item 61) until the jack reaches its maximum height.
5. Depress the air valve while turning the release knob two full turns counterclockwise. Continue to depress the air valve until the lift arm fully lowers. Turn the knob clockwise until it stops. Pump normally.
6. If the jack does not immediately respond to the air pump, repeat steps 1–5, or follow the priming instructions.

Priming the Air Pump

If air cannot be bled using the air pump air bleed procedure, the air pump has lost its prime. To prime the pump:

1. Remove the cover board (Item 26).
2. Loosen the bolt (Item 46; also see Figure 1) one-half turn.
3. Close the release valve by turning the release knob clockwise.
4. Run the air pump while repeatedly tightening and loosening the bolt. (A small amount of oil may seep from underneath the bolt during this process.)
5. When the piston begins to rise, tighten the bolt.
6. Verify the jack will rise to its full height; add oil to the reservoir if necessary.

Operating Instructions

Control rod in Position A: Allows you to pump the jack using the handle.

Control rod in Position B: Locks the handle in place in three different positions.

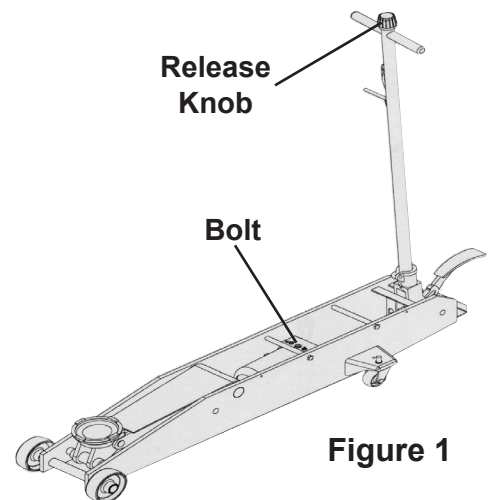


Figure 1

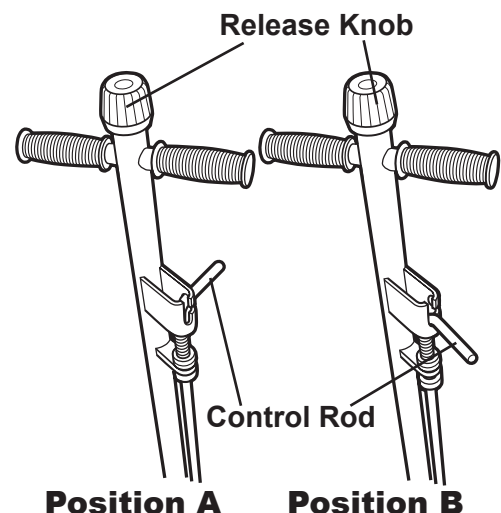


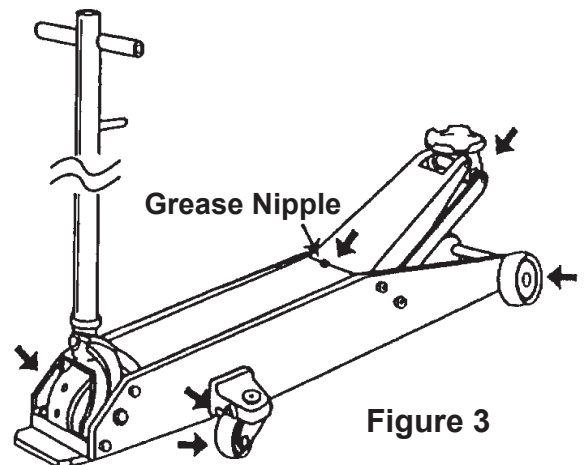
Figure 2

1. Connect the shop air supply to the jack. (Shop air should be clean, dry, and regulated at 85–142 psi.)
2. Turn the release knob completely counterclockwise, and place the control rod in Position A.
3. Position the jack under the vehicle using the manufacturer's recommended lifting points on the chassis. The jack must be free to roll without any obstructions while lifting or lowering the vehicle. The wheels of the vehicle must be in the straight-ahead position, with the emergency brake released.
4. Turn the release knob on the jack completely clockwise. Operate the air valve, pump the jack handle, or pump the foot pedal until the saddle touches the vehicle. Check the placement of the saddle lugs. Finish lifting the vehicle.
5. Place approved safety stands under the vehicle at points that will provide stable support. Before working on the vehicle, SLOWLY lower the vehicle onto the safety stands by turning the release knob counterclockwise.

Preventive Maintenance

IMPORTANT: Dirt is the greatest single cause of failure in hydraulic units. Keep the service jack clean and well lubricated to prevent foreign matter from entering the system. If the jack has been exposed to rain, snow, sand, or grit, it must be cleaned before it is used.

1. Store the jack in a well-protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful elements.
2. Refer to Figure 3, and regularly (at least once per month) lubricate the moving parts shown.
3. Add grease to upper arm grease nipple (shown) every three months.
4. If necessary, add approved anti-wear hydraulic jack oil. **IMPORTANT:** The use of alcohol, hydraulic brake fluid, detergent motor oil, or transmission oil could damage the seals and result in jack failure.
5. Inspect the jack before each use. Take corrective action if any of the following problems are found:
 - cracked or damaged housing
 - excessive wear, bending, or other damage
 - leaking hydraulic fluid
 - scored or damaged piston rod
 - malfunctioning swivel heads or adjusting screws
 - loose hardware
 - modified or altered equipment



Troubleshooting Guide

Repair procedures must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment.

Trouble	Cause	Solution
Jack does not lift.	<ol style="list-style-type: none"> 1. Release valve is open. 2. Low/no oil in reservoir. 3. Air-locked system. 4. Load is above capacity of jack. 5. Delivery valve and/or bypass 6. Packing worn out or defective. 7. Leak in air line. 8. Inadequate air pressure. 	<ol style="list-style-type: none"> 1. <i>Close release valve.</i> 2. <i>Fill with oil and bleed system.</i> 3. <i>Bleed system.</i> 4. <i>Use correct equipment.</i> 5. <i>Clean to remove dirt or foreign matter. Replace oil.</i> 6. <i>Install seal kit.</i> 7. <i>Locate leak; tighten connections or replace hose.</i> 8. <i>Set air pressure to 85–142 psi.</i>
Jack lifts only partially.	<ol style="list-style-type: none"> 1. Not enough oil. 	<ol style="list-style-type: none"> 1. <i>Add oil.</i>
Jack advances slowly.	<ol style="list-style-type: none"> 1. Pump not working correctly. 2. Leaking seals. 	<ol style="list-style-type: none"> 1. <i>Install seal kit, or replace power unit.</i> 2. <i>Install seal kit.</i>
Jack lifts load, but does not hold.	<ol style="list-style-type: none"> 1. Cylinder packing is leaking. 2. Valve not working correctly (suction, delivery, release, or bypass). 3. Air-locked system. 	<ol style="list-style-type: none"> 1. <i>Install seal kit.</i> 2. <i>Inspect valves. Clean and repair seat surfaces.</i> 3. <i>Bleed system.</i>
Jack leaks oil.	<ol style="list-style-type: none"> 1. Worn or damaged seals. 	<ol style="list-style-type: none"> 1. <i>Install seal kit.</i>
Jack will not retract.	<ol style="list-style-type: none"> 1. Release valve is closed. 	<ol style="list-style-type: none"> 1. <i>Open or clean release valve.</i>
Jack retracts slowly.	<ol style="list-style-type: none"> 1. Cylinder damaged internally. 2. Link section is binding. 	<ol style="list-style-type: none"> 1. <i>Send jack to OTC authorized service center for repair.</i> 2. <i>Lubricate link section.</i>
Air motor will not run or runs erratically.	<ol style="list-style-type: none"> 1. Leak in air line. 2. Inadequate air pressure. 3. Air piston is sticking. 	<ol style="list-style-type: none"> 1. <i>Locate leak, tighten connections, or replace hose.</i> 2. <i>Set air pressure to 85–142 psi.</i> 3. <i>Lube air motor by adding a small amount of oil to jack's air inlet.</i>

Refer to any operating instructions included with the product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected by OTC. Therefore: **Use only genuine OTC replacement parts.**