

Service Jack

Maximum Capacity: For 1505B – 4.5 tonnes (5 Ton)
For 1510B – 9 tonnes (10 Ton)

Conforms to: EN 1494, ASME PALD

Description:
Service jack used to elevate cars and light trucks.



Explanation of Safety Signal Words

The safety signal word designates the degree or level of hazard seriousness.

! **DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

! **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

! **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Parts List & Operating Instructions

Safety Precautions



CAUTION: To prevent personal injury and/ or property damage,



- Study, understand, and follow all safety precautions and operating instructions before using this service jack. If the operator cannot read instructions, operating instructions and safety precautions must be read and discussed in the operator's native language.

- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this service jack.



- Wear eye protection that meets ANSI Z87.1, CE EN166, AS/NZS 1337, and OSHA standards.
- This jack is designed to elevate cars and light trucks. Any other use of this service jack will be considered inappropriate.

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

- Do not exceed the rated capacity shown on the service jack.

- Use the service jack only 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.

- Use approved vehicle support stands to support the vehicle before working on the vehicle.



- Stay out from underneath a load that is being lifted or lowered.

- Never position any part of your body near the moveable elements of the jack.

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

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

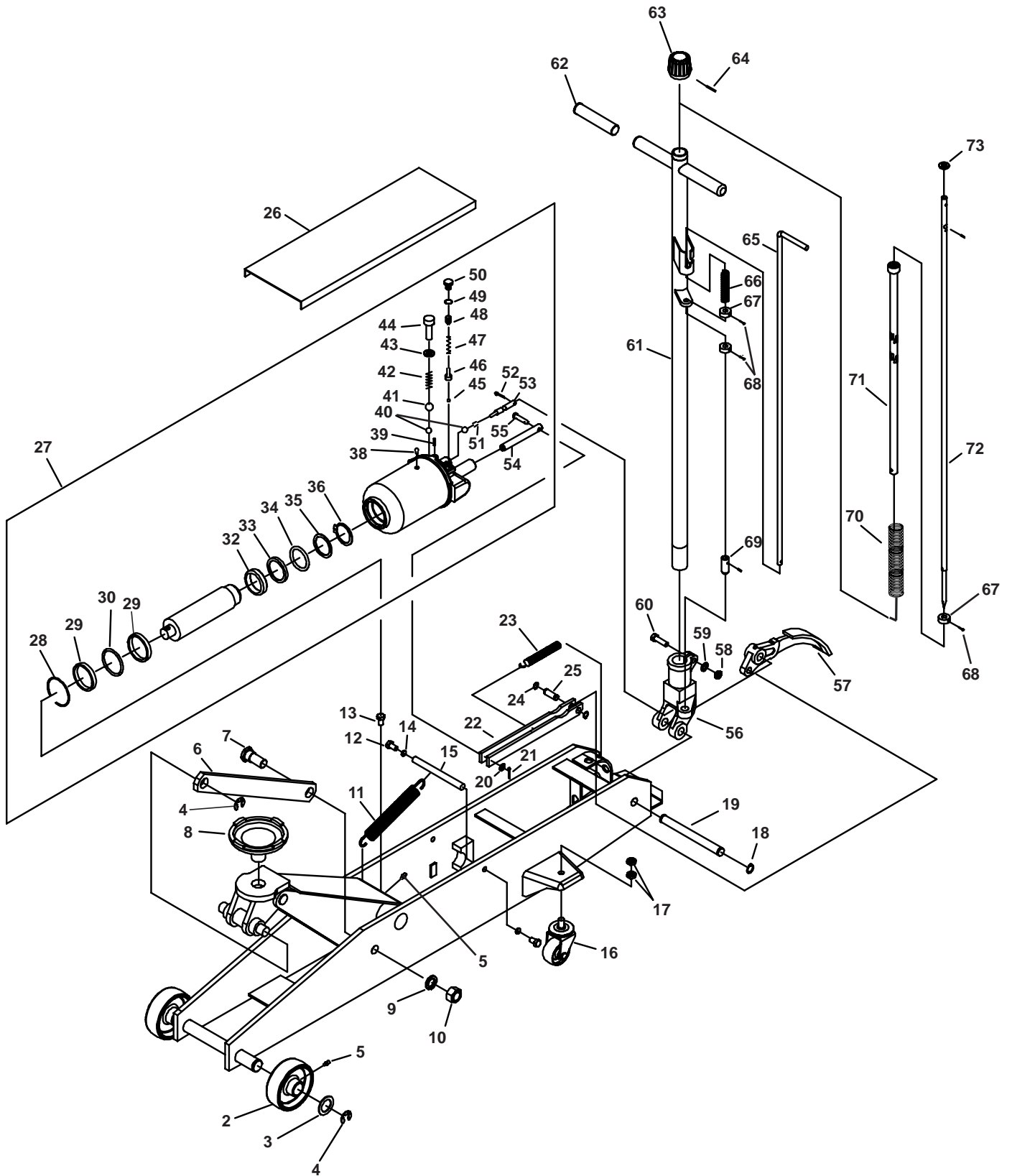
- Inspect the condition of the service jack before each use. Do not use if damaged, altered, or in poor condition.

- An overload valve on this service jack is set at the factory and must not be adjusted.

- No alterations shall be made to this product.

- Only repair parts supplied by the manufacturer may be used for unit repair.

Parts List



Parts List & Operating Instructions

Item No.	Quantity	Description	Item No.	Quantity	Description
2	2	Front Wheel	39	3	Pin
3	2	Washer	40	2	Steel Ball
4	4	Snap Ring	41	1	Steel Ball
5	3	Grease Nipple	42	1	Spring
6	2	Rod Link	43	1	Copper Washer
7	2	Bolt	44	1	Bolt
8	1	Saddle	45	1	Steel Ball
9	2	Snap Ring	46	1	Ball Seat
10	2	Nut	47	1	Spring
11	1	Spring	48	1	Screw
12	2	Bolt	49	1	Sealing Washer
13	1	Bolt	50	1	Bolt
14	2	Snap Ring	51	1	Sealing Washer
15	1	Shaft	52	1	Pin
16	2	Rear Wheel	53	1	Release Valve Rod
17	4	Nut	54	1	Cylinder Pump Plunger
18	2	Snap Ring	55	1	Pin
19	1	Shaft	56	1	Handle Socket
20	1	Washer	57	1	Pedal
21	1	Pin	58	1	Nut
22	1	Connecting Bar	59	1	Washer
23	1	Spring	60	1	Bolt
24	2	Snap Ring	61	1	Handle
25	1	Shaft	62	2	Sleeve
26	1	Inspection Plate	63	1	Knob
27	1	Cylinder Pump Assembly	64	1	Pin
28	1	Snap Ring	65	1	Control Rod
29	2	Washer	66	1	Spring
30	1	O-ring	67	3	Washer
32	1	Piston Ring	68	3	Screw
33	1	Sealing Washer	69	1	Rod Joint
34	1	O-ring	70	1	Spring
35	1	O-ring Retainer	71	1	Universal Joint Assembly
36	1	Snap Ring	72	1	Convey Rod
38	1	Oil Filler Plug	73	1	Washer

Replacement Kits

Numbers followed by an asterisk (*) are kits used on 1505B units.
 Numbers followed by this symbol (†) are kits used on 1510B units.

Item No.	Qty.	Description
No. 520771* and 520772† Seal Kits includes :		
28	1	Snap Ring
29	2	Washer
30	1	O-ring
32	1	Piston Ring
33	1	Sealing Washer
34	1	O-ring
35	1	O-ring Retainer
38	1	Oil Filler Plug
43	1	Copper Washer
49	1	Sealing Washer
No. 520773* and 520774† Power Units include:		
13	1	Bolt
27	1	Power Unit
No. 520775* and 520776† Caster Kits include:		
16	1	Rear Wheel
17	2	Nut

Item No.	Qty.	Description
No. 520777* and 520778† Wheel Kits include:		
2	1	Front Wheel
3	1	Washer
4	1	Snap Ring
5	1	Grease Nipple
No. 520779* and 520780† Saddle Kits include:		
8	1	Saddle
No. 520781* and 520782† Lift Arm Spring Kits include:		
11	1	Spring
12	2	Bolt
14	2	Snap Ring
15	1	Shaft

Item No.	Qty.	Description
No. 520783* and 520784† Pump Plunger/Connect Bar Kits include:		
20	1	Washer
21	1	Pin
22	1	Connecting Bar
24	2	Snap Ring
25	1	Shaft
54	1	Cylinder Pump Plunger
55	1	Pin
No. 520785* and 520786† Level Link Arm Kits include:		
4	2	Snap Ring
6	2	Rod Link
7	2	Bolt
9	2	Lock Washer
10	2	Nut
No. 520787* and 520788† Inspection Plate Kits include:		
26	1	Inspection Plate

The following kits are used on both the 1505B and the 1510B units.

Item No.	Qty.	Description
No. 520789 Handle Assembly Kit includes:		
61	1	Handle
62	2	Sleeve
63	1	Knob
64	1	Pin
65	1	Control Rod
66	1	Spring
67	3	Washer
68	3	Screw
69	1	Rod Joint
70	1	Spring
71	1	Universal Joint Assembly
72	1	Convey Rod
73	1	Washer
No. 520790 Handle Pivot Kit includes:		
18	2	Snap Ring
19	1	Shaft
56	1	Handle Socket

Item No.	Qty.	Description
No. 520791 Foot Pedal Kit includes:		
57	1	Pedal
No. 520792 Handle Retaining Bolt Kit includes:		
58	1	Nut
59	1	Washer
60	1	Bolt
No. 520793 Handle Return Spring Kit includes:		
23	1	Spring
No. 520794 Release Valve Kit includes:		
40	1	Steel Ball
51	1	Sealing Washer
52	1	Pin
53	1	Release Valve Rod

Item No.	Qty.	Description
No. 520795 Pump Hardware Kit includes:		
36	1	Snap Ring
39	3	Pin
40	2	Steel Ball
41	1	Steel Ball
42	1	Spring
43	1	Copper Washer
44	1	Bolt
45	1	Steel Ball
46	1	Ball Seat
47	1	Spring
48	1	Screw
49	1	Sealing Washer
50	1	Bolt
No. 520796 Grease Nipple Kit includes:		
5	1	Grease Nipple

Parts List & Operating Instructions

Setup

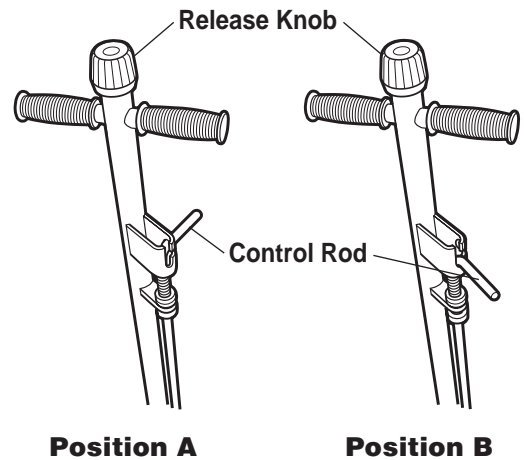
Assemble the Handle

1. Loosen the bolt on the handle socket.
2. Insert the handle.
3. Tighten the bolt.

Bleed Air from the Service Jack

Air can accumulate within a hydraulic system during shipment or after prolonged use. This entrapped air causes the jack to respond slowly or feel “spongy.” To remove the air:

1. Open the release valve by turning the release knob counterclockwise (CCW).
2. Pump the jack handle six full strokes.
3. Close the release valve by turning the release knob clockwise (CW).
4. Pump the jack handle or foot pedal until the lift arm is fully extended.
5. Lower the lift arm by turning the release knob CCW. If the jack does not immediately respond, repeat Steps 2–4.



Operating Instructions

Note: Before each use, remove any air that has accumulated in the jack system. Refer to the Setup section of these instructions for this procedure.

Lifting Operation

1. Turn release knob clockwise (CW) fully.
2. Position the jack under the vehicle.



CAUTION: Use the vehicle manufacturer’s recommended lifting points on the chassis.

3. Pump the jack handle or the foot pedal until the saddle touches the vehicle. Check the placement of the saddle lugs. Finish lifting the vehicle.
4. Place approved support stands under the vehicle at points that will provide stable support. Before working on the vehicle, SLOWLY lower the vehicle onto the support stands.

Lowering Operation



CAUTION: To prevent personal injury, before lowering a vehicle ensure that no person or any obstacles are under the vehicle.

1. Lift the vehicle just far enough to remove the support stands from under the vehicle.
2. SLOWLY turn release knob counterclockwise (CCW) to lower the vehicle completely.

Preventive Maintenance

CAUTION: Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this service jack.

CAUTION: 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 is exposed to rain, snow, sand, or grit, it must be cleaned before it is used.

Inspections

Before each use:

1. A thorough inspection of the jack must be done by an approved inspector for any of the following conditions:
 - a. Cracked or damaged housing.
 - b. Excessive wear, bending, or other damage.
 - c. Leaking hydraulic fluid.
 - d. Scored or damaged piston rod.
 - e. Malfunctioning swivel heads or adjusting screw.
 - f. Loose hardware.
 - g. Modified or altered equipment.

If any of these conditions are found, discontinue use of the jack until corrective action is taken to fix the jack.

Maintenance

Refer to Figure 1.

1. **A minimum of once a month**, lubricate the moving parts of the jack (indicated by arrows in Figure 1).
2. **Every three months**, add grease to the upper grease nipple.
3. **A minimum of once a year**, drain, flush, and replace the oil in the jack reservoir.

- Only use type HL or HM hydraulic oil with an ISO grade of kinematic viscosity of 30 cSt at 40° Celsius, or any approved anti-wear hydraulic jack oil.
- Do not overfill the jack reservoir with oil.

To check the oil level:

Place the service jack on level ground and lower the lift arm completely. Remove the filler plug located under the top shroud. The oil level should be within 10 mm (3/8 inch) of the filler plug hole. If needed, add approved anti-wear hydraulic jack oil, and reinstall the filler plug.

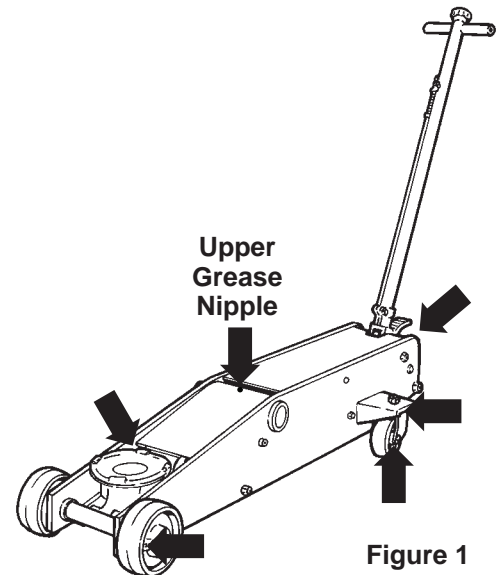


Figure 1

CAUTION: The use of alcohol, hydraulic brake fluid, detergent motor oil, or transmission oil could damage the jack seals and result in jack failure.

Parts List & Operating Instructions

Storage

Store the jack in a well-protected area away from corrosive vapors, abrasive dust, or other harmful elements. When the jack will not be used for a prolonged period of time, store it with its lifting arm fully retracted to avoid corrosion of the piston rod.

Repair

If the service jack requires any repair, use only the manufacturer's tested and selected repair parts that are listed in this instruction sheet.

Disposal

When disposing of a worn or damaged jack, drain it of all hydraulic oil and give the oil to an authorized agent for disposal. Dispose of the jack in accordance to all state, federal, and local regulations.

Troubleshooting Guide

CAUTION: Service jack repairs must be done 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 system.3. Air-locked system.4. Load is above capacity of jack.5. Delivery valve and/or bypass valve not working correctly.6. Packing worn out or defective.	<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>
Jack lifts only partially	<ol style="list-style-type: none">1. Too much or not enough oil.	<ol style="list-style-type: none">1. <i>Check oil level.</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 doesn't 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>