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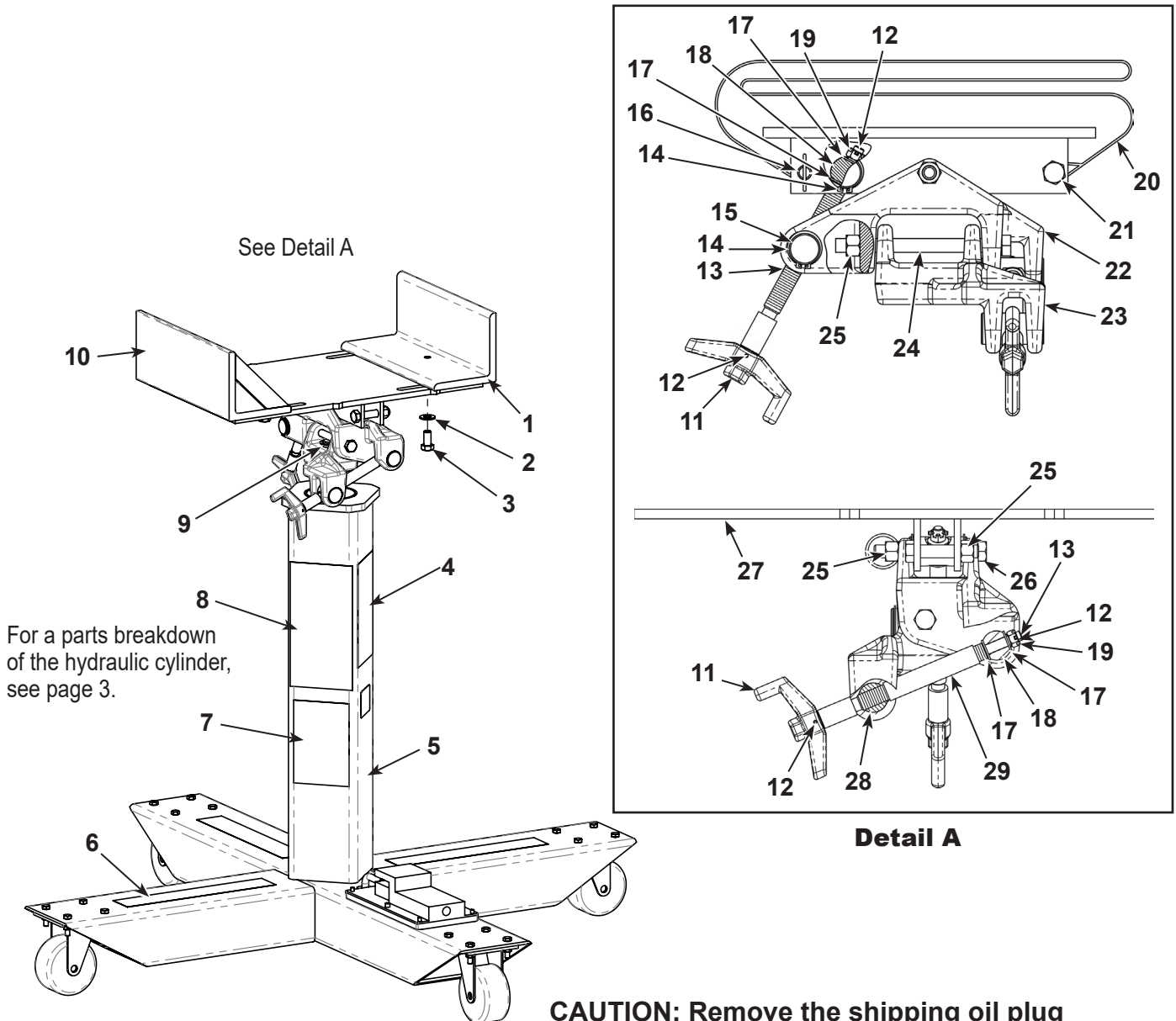
**Parts List and
 Operating Instructions
 for:**

5078

High-Lift Transmission Jack

Maximum Capacity: 2,000 lbs (907 kg) at 100-140 psi air

Application: Installation and removal of truck, bus and automobile transmissions.



CAUTION: Remove the shipping oil plug (located on top of the air hydraulic foot pump reservoir) and replace with the vented oil plug provided. Jack will not function correctly if this is not done.

Item No.	Part No.	No. Req'd	Description
1	314730	1	Back Support Bracket
2	12004	3	Washer <i>(used with item 3)</i>
3	10079	3	Hex Head Cap Screw
4	223514	1	Decal
5	54626	1	Main Base Assembly
6	19802	3	Abrasive Roll
7	SP04522066	1	Load Location Decal
8	314743	1	Warning Decal
9	11903	1	Retaining Ring
10	314733	1	Front Support Bracket
11	556805	2	Crank
12	10895	4	Roll Pin
13	314152	2	Threaded Rod
14	12365	4	External Retaining Ring
15	222238	1	Pivot Shaft
16	15997	1	Cotterless Hitch Pin
17	214021	4	Thrust Bearing Washer
18	222237	2	Pivot Shaft
19	583209	2	Slotted Hex Nut
20	306422	1	Safety Strap
21	10089	1	Hex Head Cap Screw
22	440400	1	Pivot Linkage Assembly
23	314154	1	Pivot
24	583236	1	Hex Head Cap Screw
25	15013	3	Hex Locknut ($\frac{1}{2}$ -13)
26	215864	1	Hex Head Cap Screw
27	SP04522127	1	Mounting Plate
28	222236	1	Pivot Shaft
29	559747	1	Spacer

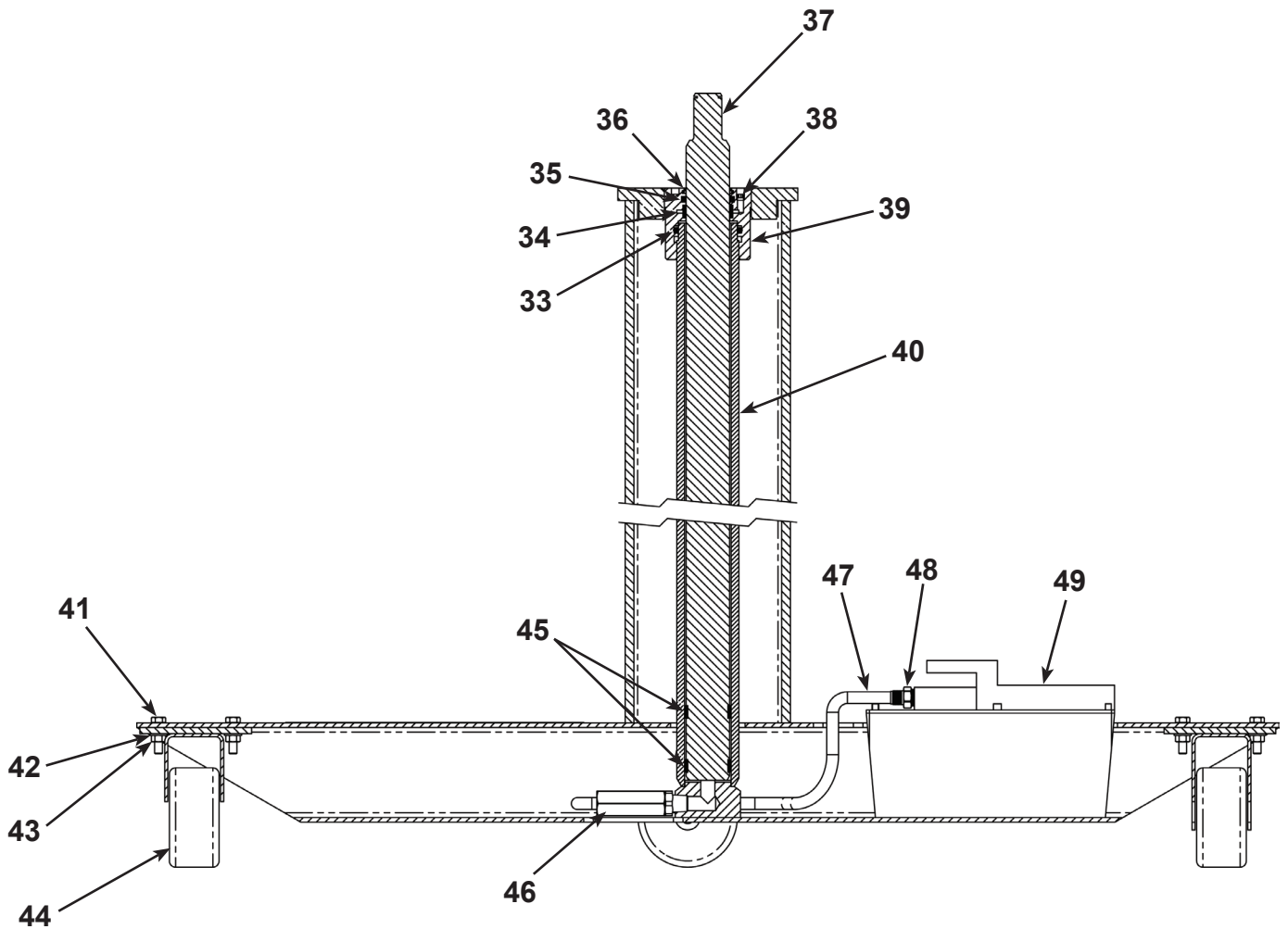
This document contains product parts lists, and information regarding operation and maintenance. Items listed in the parts list have been carefully tested and selected by OTC. Therefore: Use only OTC replacement parts.

Get parts at
OTCparts.com



Product questions can be directed to the OTC Technical Service Department at (800) 533-6127.

Hydraulic Cylinder Assembly



Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
33	*14848	1	O-ring	42	10257	16	Washer (used with item 41)
34	*223492	1	Wear Ring (2" O.D.)	43	10201	16	Hex Nut (5/16-18)
35	*223490	1	U-cup Seal	44	16002	4	Swivel Caster (4-in.)
36	*19591	1	Rod Wiper	45	*223491	2	Wear Ring (1.875" O.D.)
37	440685	1	Cylinder Rod	46	562697	1	Flow Control Valve
38	*15130	1	Plug	47	314726	1	Hydraulic Hose (37")
39	63340	1	Packing Gland	48	11628	1	Straight Fitting
40	314728	1	Displacement Cylinder	49	66226	1	Air Hydraulic Foot Pump
41	10559	16	Hex Head Cap Screw				

Items marked with an asterisk (*) are included in Seal Repair Kit No. 300717.

Safety Precautions

 **WARNING:** To prevent personal injury and/or damage to equipment,



- Read, understand, and follow all safety precautions and operating instructions.

- Wear eye protection that meets the requirements of ANSI Z87.1 and OSHA.

- A load must never exceed the rated lifting capacity of the jack.

- Do not lift or support the vehicle with this jack. Place support stands under the vehicle before starting repairs.



- Use the jack on a hard, smooth, level surface only.

- The load center of gravity **MUST** be positioned inside the four points area of the mounting plate. An off-center load can result in jack failure, loss of the load, and personal injury.

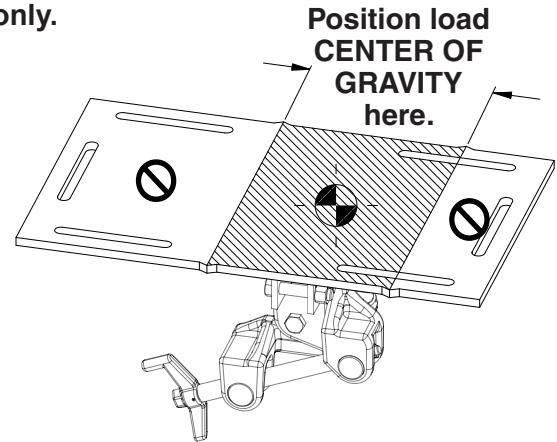


- Never move the jack with a load any higher off the ground than necessary. Slowly and carefully move the jack around corners because the load could tip. Stay clear of a lifted load.

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

- Do not modify the jack or use adapters unless approved or supplied by OTC.

- Use only OTC-approved hydraulic oil with a 215 SUS viscosity rating at 100° F. Do not use alcohol, hydraulic brake fluid, or transmission oil as this can damage seals and result in jack failure.



This guide cannot cover every situation, so always do the job with safety first.

Setup Instructions

(Item numbers refer to the parts list.)

1. Remove the transmission jack from the shipping pallet. Attach four casters (Item No. 44) using hardware (41, 42, & 43) provided.
2. The front and back support brackets (1 & 5) are designed to fit Allison 500 and 600 Series transmissions (but could possibly fit other transmissions). If using:
 - a. Use fasteners (2 & 3) to loosely assemble the brackets to the mounting plate.
 - b. Adjust the brackets to fit the transmission pan and position the load center of gravity inside the four points of the mounting plate. **NOTE: Refer to the Operating Instructions section of this document.**
 - c. Once positioned correctly, tighten the bracket fasteners securely to the mounting plate .
3. **Remove the shipping oil plug from the air hydraulic foot pump.** Replace the shipping oil plug with the vented oil plug provided.
4. The jack's cylinder/pump reservoir is filled and shipped with approved hydraulic oil. Prior to first use of the jack, press the release pedal to open the release valve, and extend and retract the jack eight full strokes (at minimum) to distribute the oil. Remove the oil plug and check for correct oil level (within ½" of the filler hole). Add oil if needed, and reinstall the oil plug.

Operating Instructions

1. Refer to vehicle's service manual and use the recommended service procedure for removal of the transmission.
2. Position the jack under the vehicle.
3. Operate the foot pump to raise the jack until the mounting plate begins to touch the transmission.

⚠ WARNING: To prevent personal injury and/or equipment damage or failure, it is critical to position the load center of gravity on the jack mounting plate correctly. The load center of gravity **MUST** be positioned inside the four points area of the mounting plate. See Figure 1.

4. Align the mounting plate as best possible with the transmission by adjusting the tilt cranks.
5. Adjust the support brackets (if used) to fit the transmission. Tighten support bracket fasteners securely to the mounting plate.
6. Continue to slowly raise the jack to the component. Secure the strap assembly around the transmission.
7. Release the component from the vehicle, and slowly and carefully lower the jack and load to the lowest position of the jack.

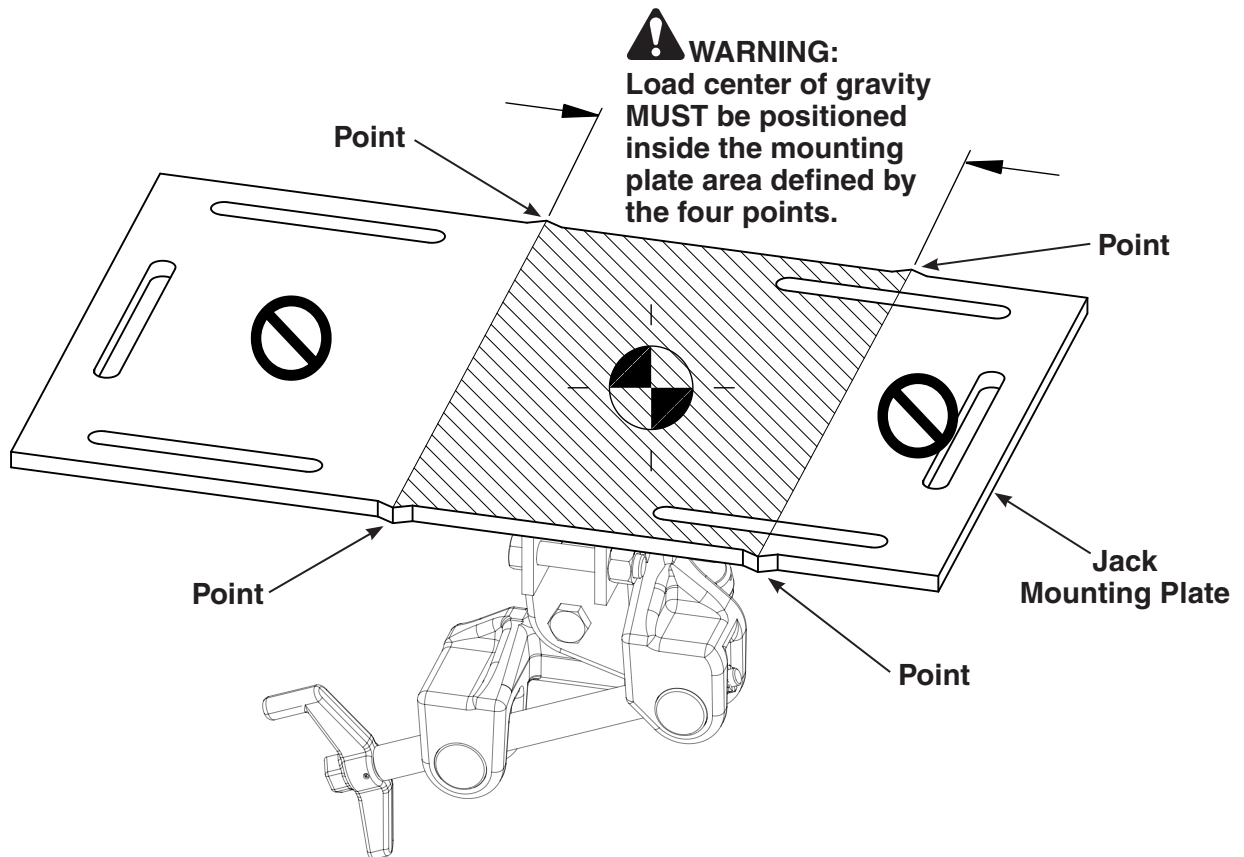


Figure 1

Maintenance

1. Periodically check the oil level:
 - a. Lower the jack to its lowest position.
 - b. Remove the oil plug (located on the top plate of the foot pump reservoir).
 - c. If low, add hydraulic oil (215 SUS viscosity at 100° F) until oil level is within ½" of the filler hole.
CAUTION: Use only OTC-approved hydraulic oil. Do not use alcohol, hydraulic brake fluid, or transmission oil as this can damage the seals in the cylinder and result in jack failure.
 - d. Reinstall the oil plug.
2. Keep the jack clean and well-lubricated to prevent debris from entering the hydraulic system. Keep the cylinder fully retracted when not in use.

Bleeding Air from the Jack

1. Retract the jack to its lowest position, and remove the oil plug (located in the top plate of the foot pump reservoir).
2. Remove the plug (Item No. 38) located on the top of the packing gland (39).
3. Operate the foot pump to fully extend the jack.
4. Reinstall the plug into the packing gland (was removed in Step 2).
5. Retract the jack to its lowest position.
6. Fill the foot pump reservoir with hydraulic oil (215 SUS viscosity rating at 100° F) to the correct fluid level (½" from the top).
7. Reinstall the oil plug on the foot pump. Observe for any leaks.

Troubleshooting Guide

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

Trouble	Cause	Solution
Unit fails to extend or extends partially	1. Low fluid level	1. Fill to correct fluid level (within ½" from the filler hole).
Incomplete or spongy cylinder response when foot pedal is pumped	1. Low fluid level 2. Air in system	1. Fill to correct fluid level (within ½" from the filler hole). 2. Follow instructions to bleed air from system.
Abnormal leakage through oil plug	1. Reservoir fluid level too high	1. Correct fluid level (within ½" from the filler hole).
Unit fails to extend when foot pedal is pumped	1. Release valve malfunction 2. Contamination 3. Cylinder packing failure	1. Pump foot pedal with release valve open. 2. Disassemble and clean unit. 3. Install repair kit.
Cylinder creeps	1. Load exceeds maximum lifting capacity 2. Release valve is leaking	1. Reduce load. 2. Flush release valve by pumping foot pedal with release valve open.
Cylinder doesn't retract when release pedal is activated	1. Cylinder is binding	1. Disassemble unit; replace defective parts.
Cylinder doesn't extend	1. Contamination 2. Bad packing	1. Disassemble and clean unit. 2. Install repair kit.
Cylinder extends when foot pedal is pressed, and retracts as foot pedal retracts	1. Release valve malfunction 2. Contamination	1. Flush release valve by pumping foot pedal with release valve open. 2. Disassemble and clean unit.