



SPX Corporation  
655 Eisenhower Drive  
Owatonna, MN 55060-0995 USA  
Phone: (507) 455-7000  
Tech. Serv.: (800) 533-6127  
Fax: (800) 955-8329  
Order Entry: (800) 533-6127  
Fax: (800) 283-8665  
International Sales: (507) 455-7223  
Fax: (507) 455-7063

Form No. 107318

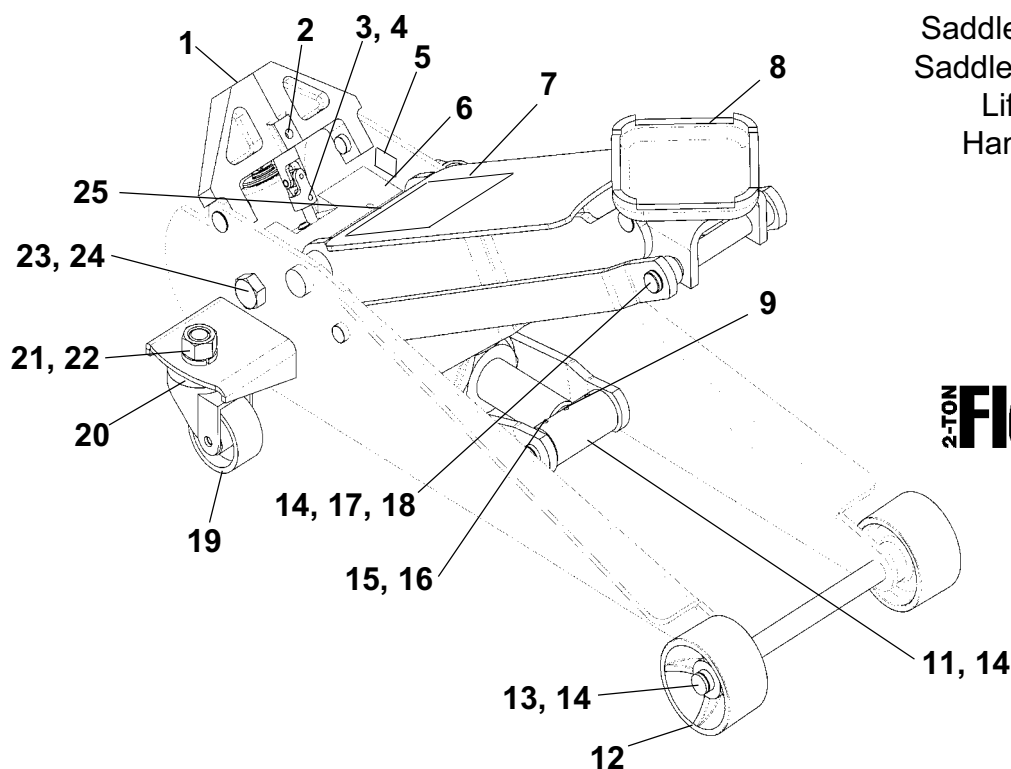
**Parts List and  
Operating Instructions  
for:**

**1727**

## Service Jack

Max. Capacity: 2 Tons

*Application: Designed to lift a wide range of motor vehicles.*



Saddle Low Point: 3-3/4 in.  
Saddle High Point: 22-1/2 in.  
Lifting Range: 18-3/4 in.  
Handle Length: 48 in.

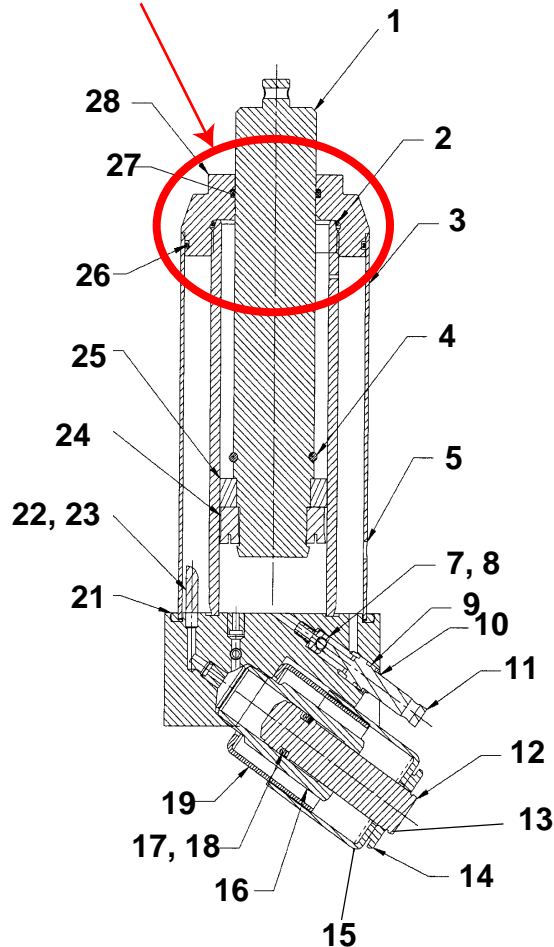
Item No.	Part No.	Qty.	Description
1	501238	1	Handle Ass'y ( <i>not shown</i> )
2	12368	1	Hex Hd. Cap Screw (3/8-16)
3	509167	1	U-joint
4	10549	1	Roll Pin
5	504849	1	Placard
6	516737	1	Hydraulic Unit
7	502032	1	Decal
8	501237	1	Saddle
9	217176	1	Cotter Pin (1/8 x 1-1/2")
11	501401	1	Load Block
12	501800	2	Front Wheel
13	15953	2	Washer (3/4")
14	14855	6	Retaining Ring (3/4")
15	501814	2	Anchor Pin ( <i>not shown</i> )

Item No.	Part No.	Qty.	Description
16	513781	2	Spring ( <i>not shown</i> )
17	501503	2	Spacer
18	501394	1	Rod
19	501288	2	Caster
20	10236	2	Washer
21	10252	2	Lock Washer (3/4")
22	10397	2	Hex Nut (3/4")
23	501818	4	Spacer
24	501805	4	Bolt
25	501817	1	Press-in Grease Fitting

**Parts Included but not Shown**

501234	1	Pump Roller
516675	1	Groove Pin

Verify yours



Shaded areas reflect the last revisions made to this document.

## No. 516737 Hydraulic Assembly

Item No.	Part No.	Qty.	Description
1	513788	1	Rod
2	j 509129	1	O-ring
3	512049	1	Reservoir Tube
4	201433	1	Retaining Ring
5	j 221278	1	Plug
7	j 501804	1	Replaceable Seat (torque to 130 in. •lbs.)
8	j 12223	1	Ball
9	j 10268	1	O-ring
10	16807	1	Release Stop Screw (not shown)
11	508931	1	Release Screw
12	512043	1	Pump Piston
13	208676	1	Retaining Ring
14	512045	1	Spring Retainer
15	514461	1	Dust Boot
16	512044	1	Pump Tube (torque to 100 ft. •lbs.)
17	j 513790	1	O-ring
18	j 513791	1	Backup Washer
19	514462	1	Dust Boot
21	j 509135	1	Reservoir Seal
22	j 501236	1	Filter Retainer
23	j 221280	1	Filter Screen
24	j 509133	1	U-cup
25	j 516432	1	Backup Ring
26	j 509130	1	O-ring
27	j 14739	1	O-ring
28	508822	1	Gland Nut (torque to 100 ft. •lbs.)
	513780	1	Compression Spring (not shown)

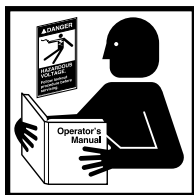
Parts marked with an asterisk (j) are included in Seal Kit No. 516817.

## Bleeding Air from the System

Air can accumulate within a hydraulic system during shipment, or if the oil supply runs too low. This entrapped air causes the jack to respond slowly or feel "spongy." The following procedure bleeds air from the system.

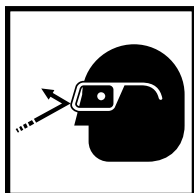
1. Remove the jack from service, and place it on a level surface.
2. Open the release valve by turning the handle all the way counterclockwise (CCW).
3. Pump the handle six full strokes.
4. Close the release valve by turning the handle all the way clockwise (CW).
5. Pump the handle until the lift arm is fully extended.
6. Lower the lift arm by turning the handle all the way counterclockwise (CCW).
7. Test the jack for normal operation. If the lift pad doesn't rise to the correct height, repeat Steps 2-6. If this doesn't solve the problem, call the OTC Technical Services Dept. at (800) 533-6127.

## Safety Precautions



**Caution:** To prevent personal injury and damage to equipment,

- Read, understand, and follow all instructions, including ASME PALD Part 10 for service jacks. If the operator cannot read English, operating instructions and safety precautions must be read and discussed in the operator's native language.
  - *Si el operador no puede leer inglés, las instrucciones de operación y las precauciones de seguridad deberán leerse y comentarse en el idioma nativo del operador.*
  - *Si l'utilisateur ne peut lire l'anglais, les instructions et les consignes de sécurité doivent lui être expliquées dans sa langue maternelle.*
- Before using the service jack to lift a vehicle, refer to the vehicle service manual to determine recommended lifting surfaces on the vehicle chassis.
- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Inspect the jack before each use; do not use the jack if it's damaged, altered, or in poor condition. Take corrective action if any of the following conditions are found: cracked or damaged housing; excessive wear, bending, or other damage; leaking hydraulic fluid; scored or damaged piston rod; loose hardware; modified or altered equipment.
- A load must 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 released.
- Use the jack for lifting purposes only. Stay clear of a lifted load. Place support stands under the axles before working on the vehicle.
- Center the load on the saddle. Off-center loads can damage seals and cause jack failure. Lift only dead weight.
- Do not use blocks or other extenders between the saddle and the load being lifted.
- Do not modify the jack or use adapters unless approved or supplied by OTC.
- Lower the jack slowly and carefully while watching the position of the jack saddle.
- Use only automatic transmission fluid. The use of alcohol, hydraulic brake fluid, or transmission oil could damage seals and result in jack failure.



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

## Operating Instructions

### Setup

1. Loosen the screw on the front of the handle socket.
2. Grease the socket opening. Insert the handle.
3. Torque the screw to 120 in. lbs.

### Operation

1. Close the release valve by turning the handle clockwise (CW) as far as it will go.
2. Position the jack under the vehicle. **IMPORTANT: Use the manufacturer's recommended lifting points on the chassis.**
3. Pump the jack handle to raise the saddle to the contact point.
4. Check the placement of the jack; the load must be centered on the jack saddle. **IMPORTANT: Avoid wheel obstructions such as gravel, tools, or uneven expansion joints.**
5. Finish lifting the vehicle by pumping the handle. Do not attempt to raise the jack beyond its travel stops.
6. Place approved support stands under the vehicle at points that will provide stable support. Before making repairs on the vehicle, lower it onto the support stands by SLOWLY and CAREFULLY turning the handle counterclockwise (CCW).

## Preventive Maintenance

**IMPORTANT: The greatest single cause of failure in hydraulic units is dirt.** 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. Regularly lubricate the moving parts in the wheels, arm, and handle.
3. Replace the oil in the reservoir at least once per year. To check the oil level, lower the lift arm completely. Remove the rubber filler plug. Oil level should be at the bottom of the filler plug hole. If necessary, add automatic transmission fluid, and install the filler plug. **IMPORTANT: The use of alcohol or hydraulic brake fluid could damage the seals and result in jack failure.**
4. Inspect the jack before each use. Take corrective action if any of the following problems are found:
 

a. cracked, damaged housing	c. leaking hydraulic fluid	e. loose hardware
b. excessive wear, bending, other damage	d. scored, damaged piston rod	f. modified equipment
5. Keep warning labels and instructional decals clean and readable. Use a mild soap solution to wash external surfaces of the jack.

## Troubleshooting Guide

Repair procedures must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment. **CAUTION: Inspection, maintenance, and repair procedures must be performed when the jack is free of a load (not in use).**

Trouble	Cause	Solution
<b>Jack does not lift</b>	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 valve not working correctly. 6. Packing worn out or defective.	1. Close release valve. 2. Fill with automatic transmission fluid and bleed system. 3. Bleed system. (See "Bleeding Air from the system" on back of page 1.) 4. Use correct equipment. 5. Clean to remove dirt or foreign matter. Replace oil. 6. Replace packing.
<b>Jack lifts only partially</b>	1. Too much or not enough oil.	1. Check oil level.
<b>Jack advances slowly</b>	1. Pump not working correctly. 2. Leaking seals.	1. Rework pump. 2. Replace seals. (Seal kit No. 516817 is available from OTC.)
<b>Jack lifts load, but doesn't hold</b>	1. Cylinder packing is leaking. 2. Valve not working correctly (suction, delivery, release, or bypass). 3. Air-locked system.	1. Replace packing. 2. Inspect valves. Replace if necessary. 3. Bleed system.
<b>Jack leaks oil</b>	1. Worn or damaged seals.	1. Replace seals.
<b>Jack will not retract</b>	1. Release valve is closed.	1. Open release valve all the way counterclockwise (CCW). May be necessary to clean release valve.
<b>Jack retracts slowly</b>	1. Cylinder damaged internally. 2. Return spring(s) is damaged. 3. Link section is binding.	1. Send jack to OTC-authorized service center. (Refer to OTC Form No. 104031.) 2. Replace return spring(s). 3. Lubricate link sections.