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Form No. 102601

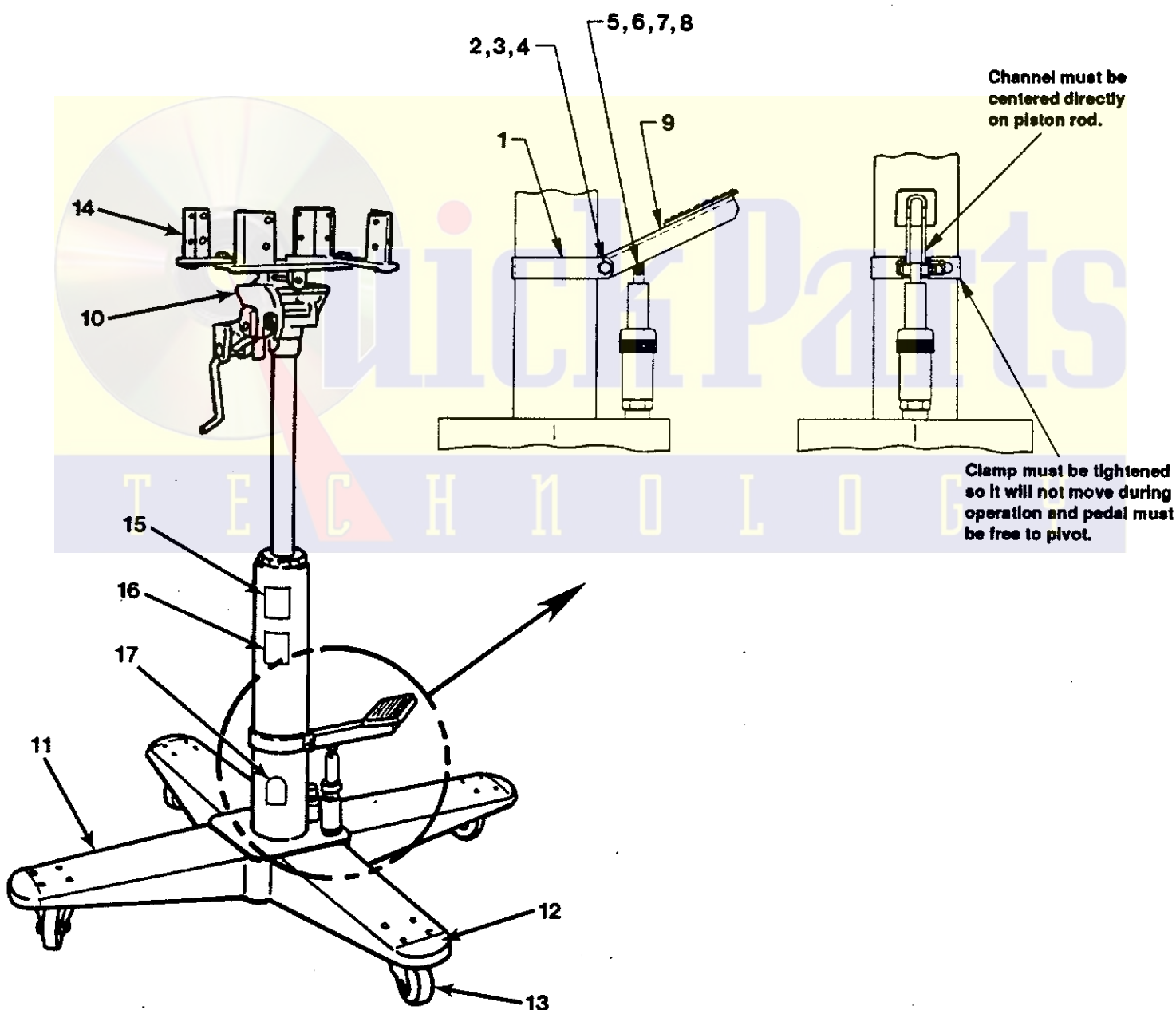
**Parts List &
Operating Instructions
for:**

1789

High Lift Transmission Jack

Max. Capacity: 1,000 lbs.

The OTC #1789 High Lift Transmission Jack is used for the removal, installation, and transportation (in the lowered position) of transmissions and differentials. Adapters are available from OTC to handle other components, such as rear axle units and transfer cases, within the weight limitations specified.

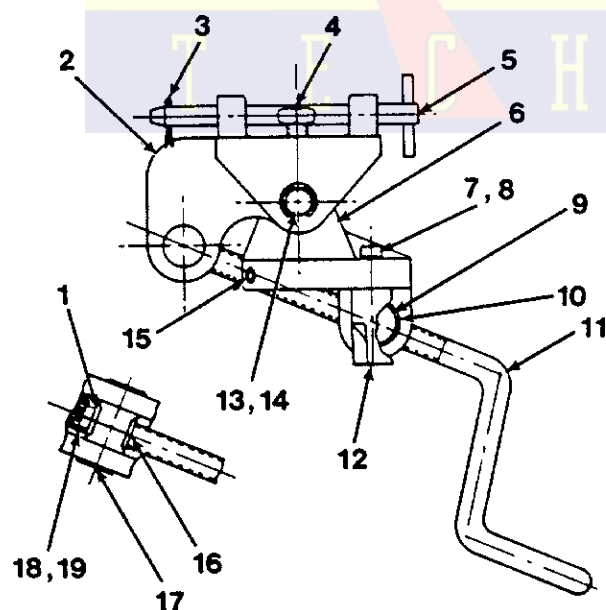


Sheet No. 1 of 3

Issue Date: Rev. 4-15-95

| Item No. | Part No. | No. Req'd | Description |
|----------|-------------|-----------|--|
| 1 | 309645 | 1 | Clamp |
| 2 | 215983 | 1 | Pivot Screw (3/8-16) |
| 3 | 211319 | 1 | Locknut (3/8-16) |
| 4 | 10842 | 1 | Cap Nut (3/8-16) |
| 5 | 13508 | 1 | Soc. Hd. Shoulder Screw |
| 6 | 215985 | 2 | Roller (Rollers must turn freely after assembly) |
| 7 | 207405 | 1 | Locknut (10-24) |
| 8 | 14788 | 1 | Cap Nut (10-24) |
| 9 | 47860 | 1 | Pedal |
| 10 | 47678-4-BL2 | 1 | Tilt Head Assembly |
| 11 | 47678-1-BL2 | 4 | Leg |
| 12 | 47678-2-BL2 | 4 | Cast Iron Caster Bracket |
| 13 | 47678-3 | 4 | Plastic Caster with Chrome Bracket |
| 14 | 47678-48 | 1 | Long Corner Bracket (set of four) |
| 15 | 11280 | 1 | Trade Name Decal |
| 16 | 309135 | 1 | Warning Decal |
| 17 | 216703 | 1 | Made In USA Decal |

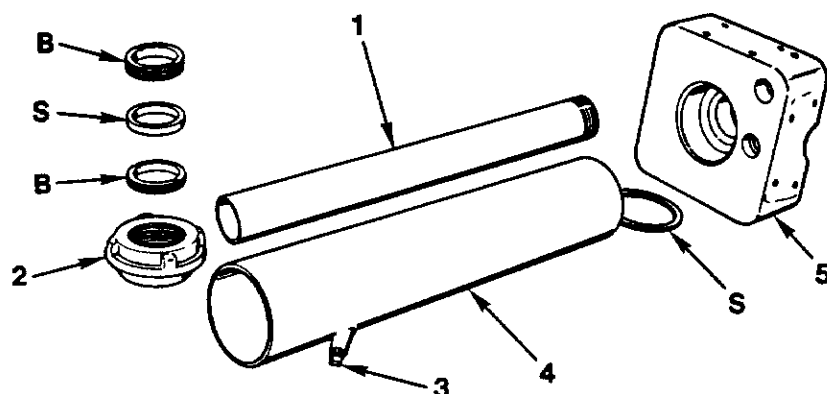
TILT HEAD ASSEMBLY



| Item No. | Part No. | No. Req'd | Description |
|----------|-------------|-----------|---|
| 1 | 47678-17 | 1 | Washer |
| 2 | 47678-6-BL2 | 1 | Upper Head Casting |
| 3 | † | 1 | Cotter Pin (3/32 Dia. x 1" Lg.) |
| 4 | 47678-7 | 1 | Side Level Screw |
| 5 | 47678-8 | 1 | Adapter Pin |
| 6 | 47678-5-BL2 | 1 | Lower Head Casting & Set Screws |
| 7 | 10984 | 1 | Soc. Hd. Cap Screw (3/8-16 x 1-1/2 Lg.) |
| 8 | 10247 | 1 | Lockwasher (for 3/8" bolt) |
| 9 | 47678-13 | 1 | Tilt Nut (threaded) |
| 10 | 47678-14 | 1 | Lock Ring for Tilt Nut |
| 11 | 47678-12 | 1 | Forward Tilt Crank & Nut |
| 12 | 47678-11 | 1 | Ram Lock Pin, Screw, & Washer |
| 13 | 47678-9 | 1 | Pin |
| 14 | 47678-10 | 1 | Lock Ring |
| 15 | 10145 | 1 | Set Screw (5/16-18 x 5/8 Lg.) |
| 16 | 47678-16 | 1 | Tilt Screw Bushing |
| 17 | 47678-15 | 1 | Tilt Screw Block |
| 18 | † | 1 | Castle Nut (3/8-24) |
| 19 | † | 1 | Cotter Pin (3/32 Dia. x 1" lg.) |

† = Supplied by User

MAIN HYDRAULIC ASSEMBLY



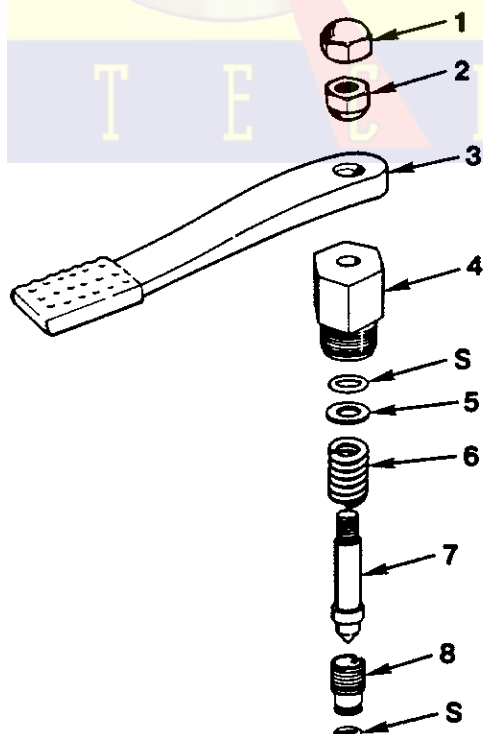
Parts marked with an "S" are contained in Seal & Gasket Kit #47678-45.

Parts marked with a "B" are contained in Brass Parts Kit #47678-46.

Rebuild Kit #47678-47 contains the Seal & Gasket Kit and the Brass Parts Kit.

| Item No. | Part No. | No. Req'd | Description |
|----------|--------------|-----------|------------------|
| 1 | 47678-21 | 1 | Main Cylinder |
| 2 | 47678-22-BL2 | 1 | Cylinder Top Nut |
| 3 | 47678-44 | 1 | Vent Fill Plug |
| 4 | 47678-20-BL2 | 1 | Reservoir Tube |
| 5 | 47678-18-BL2 | 1 | Base Casting |

RELEASE VALVE ASSEMBLY



| Item No. | Part No. | No. Req'd | Description |
|----------|--------------|-----------|----------------------|
| 1 | 47678-40 | 1 | Cap Nut |
| 2 | 47678-39 | 1 | Swivel Nut |
| 3 | 47678-38-BL2 | 1 | Release Pedal |
| 4 | 47678-34-BL2 | 1 | Release Valve Body |
| 5 | 47678-37 | AR | Washer |
| 6 | 47678-36 | 1 | Release Valve Spring |
| 7 | 47678-35 | 1 | Needle |
| 8 | 47678-19 | 1 | Insert |

AR = As Required

Parts marked with an "S" are contained in Seal & Gasket Kit #47678-45.

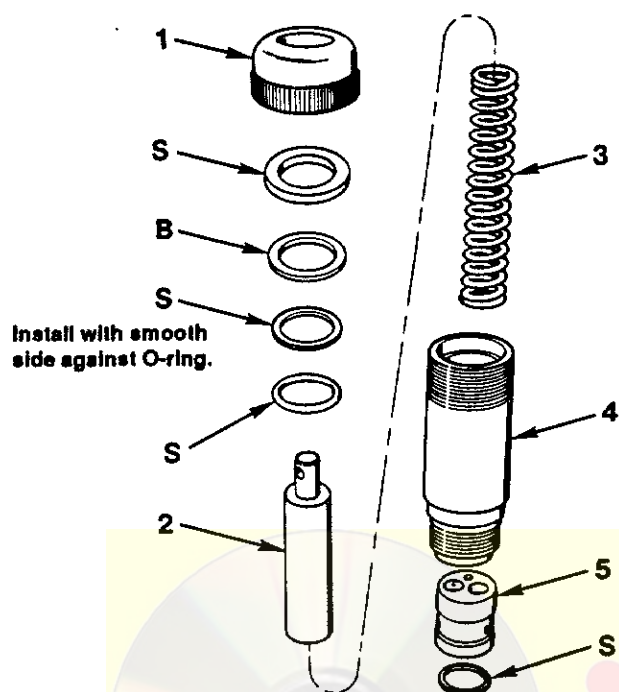
Parts marked with a "B" are contained in Brass Parts Kit #47678-46.

Rebuild Kit #47678-47 contains the Seal & Gasket Kit and the Brass Parts Kit.

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PUMP ASSEMBLY



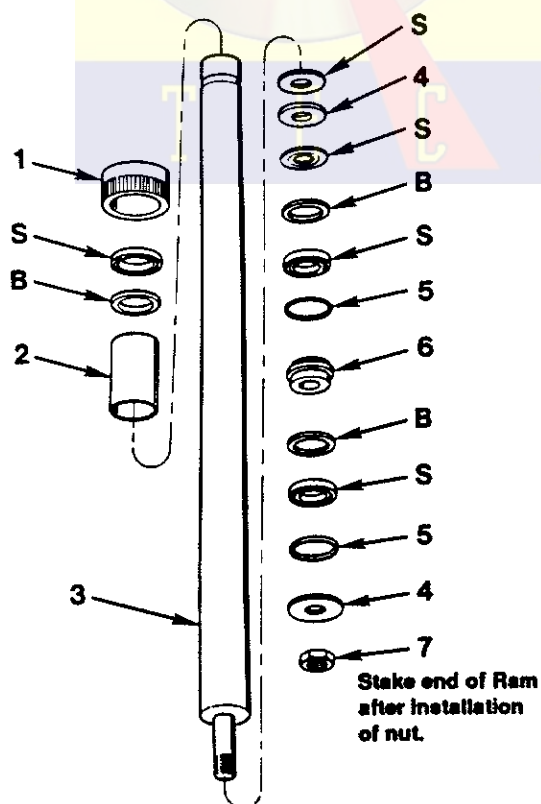
| Item No. | Part No. | No. Req'd | Description |
|----------|--------------|-----------|--------------------|
| 1 | 47678-43 | 1 | Piston Packing Nut |
| 2 | 47678-42 | 1 | Pump Piston |
| 3 | 215989 | 1 | Compression Spring |
| 4 | 47678-41-BL2 | 1 | Pump Cylinder |
| 5 | 47678-33 | 1 | Valve Assembly |

Parts marked with an "S" are contained in Seal & Gasket Kit #47678-45.

Parts marked with a "B" are contained in Brass Parts Kit #47678-46.

Rebuild Kit #47678-47 contains the Seal & Gasket Kit and the Brass Parts Kit.

MAIN RAM ASSEMBLY



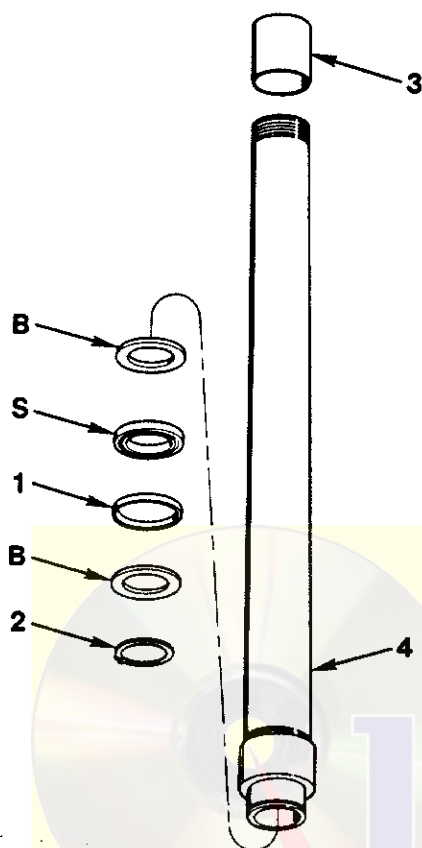
| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|------------------|
| 1 | 47678-27 | 1 | Ram Packing Nut |
| 2 | 47678-31 | 1 | Stop Spacer |
| 3 | 47678-28 | 1 | Ram |
| 4 | 47678-30 | 2 | Ram Seal Washer |
| 5 | 47678-32 | 2 | Seal Expander |
| 6 | 47678-29 | 1 | Ram Seal Bushing |
| 7 | 10390 | 1 | Jam Nut (1/2-20) |

Parts marked with an "S" are contained in Seal & Gasket Kit #47678-45.

Parts marked with a "B" are contained in Brass Parts Kit #47678-46.

Rebuild Kit #47678-47 contains the Seal & Gasket Kit and the Brass Parts Kit.

Secondary Ram Assembly



| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|-----------------------------------|
| 1 | 47678-25 | 1 | Seal Expander (large) |
| 2 | 47678-26 | 1 | Lock Ring |
| 3 | 47678-24 | 1 | Stop Spacer |
| 4 | 47678-23 | 1 | Secondary Cylinder with Seal Body |

Parts marked with an "S" are contained in **Seal & Gasket Kit #47678-45**.

Parts marked with an "B" are contained in **Brass Parts Kit #47678-46**.

Rebuild Kit #47678-47 contains the Seal & Gasket Kit and the Brass Parts Kit.

TECHNOLOGY
Safety Precautions

- Warning:** To help prevent personal injury or damage to equipment,
- Wear eye protection that meets the requirements of ANSI Z87.1 and OSHA.
 - Never exceed the rated lifting capacity of the jack.
 - Do not lift or support the vehicle with this jack. The vehicle must be adequately supported by approved safety stands before starting repairs.
 - Use only anti-wear hydraulic jack oil with a 215 SUS viscosity rating at 100° F. The use of alcohol, hydraulic brake fluid, or transmission oil could damage the seals in the ram and result in jack failure.
 - Center the load on the jack saddle. Off-center loads can damage the seals in the ram and cause jack failure.
 - Never move the jack with the load any higher off the ground than necessary.
 - To avoid instability, move the jack only on smooth and level, hard surfaces. Move the jack cautiously around corners.
 - Use only those adapters provided by OTC. Never modify the jack or adapters.
 - Release pressure slowly.

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Issue Date: Rev. 4-15-95

Setup Instructions

1. Attach the legs to the jack base using lockwashers and bolts provided.
2. The reservoir tube is filled with hydraulic oil during assembly. Before using the jack for the first time, press the release pedal to open the release valve, and operate the foot pump eight full strokes to distribute the oil.
3. Lubricate all moving parts of the jack, including the outside surfaces of the main and secondary ram pistons.

Operating Instructions

Important: To prevent damage to the jack, do NOT turn or adjust the preset knurled adjusting nuts or foot pedal release valve.

1. Follow the vehicle manufacturer's recommended service procedure for removal of the component.
2. Position the jack under the vehicle.
3. Raise the jack by operating the foot pump until the saddle touches the component. See Figure 1.
4. Adjust the support brackets to fit the component.
5. Use the tilt crank to align the saddle with the component. Finish raising the jack to the component.

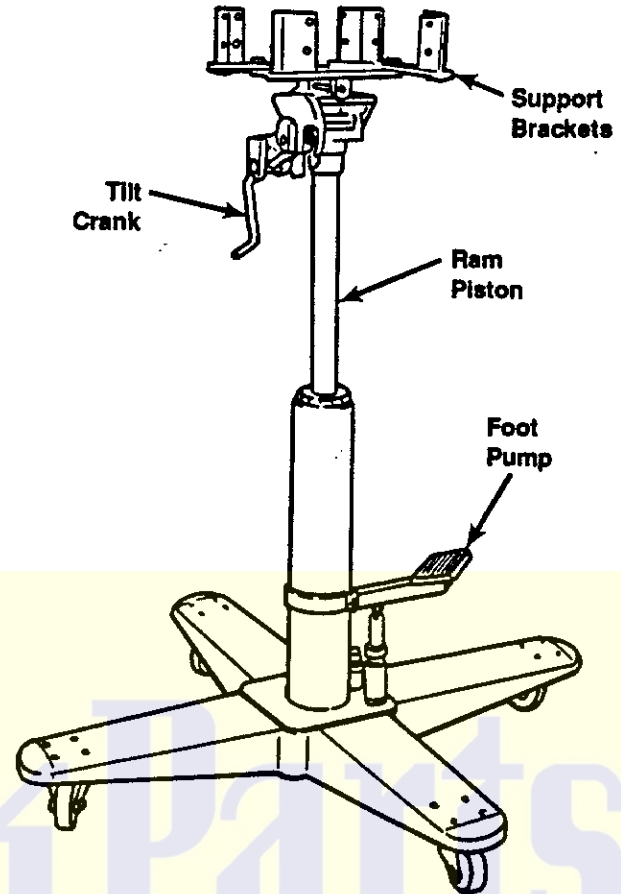


Figure 1

Maintenance

1. Use only anti-wear hydraulic jack oil. The use of alcohol, hydraulic brake fluid, or transmission oil could damage the seals in the ram and result in jack failure.
2. Check the oil level periodically in the following manner:
 - A. Lower the jack to its lowest position.
 - B. Remove the filler plug.
 - C. The oil capacity of this unit is two quarts; the oil level must be within 1/2" of the filler hole. If necessary, add hydraulic oil (215 SUS viscosity rating at 100° F).
 - D. Install the filler plug again.
3. Periodically raise the jack to its full height and oil the outside surface of the ram piston. Oil the moving parts in the handle, pump piston, lifting mechanism, and caster wheels. **Important:** The greatest single cause of failure in hydraulic units is dirt. Keep the jack clean and well lubricated to prevent foreign matter from entering the system.