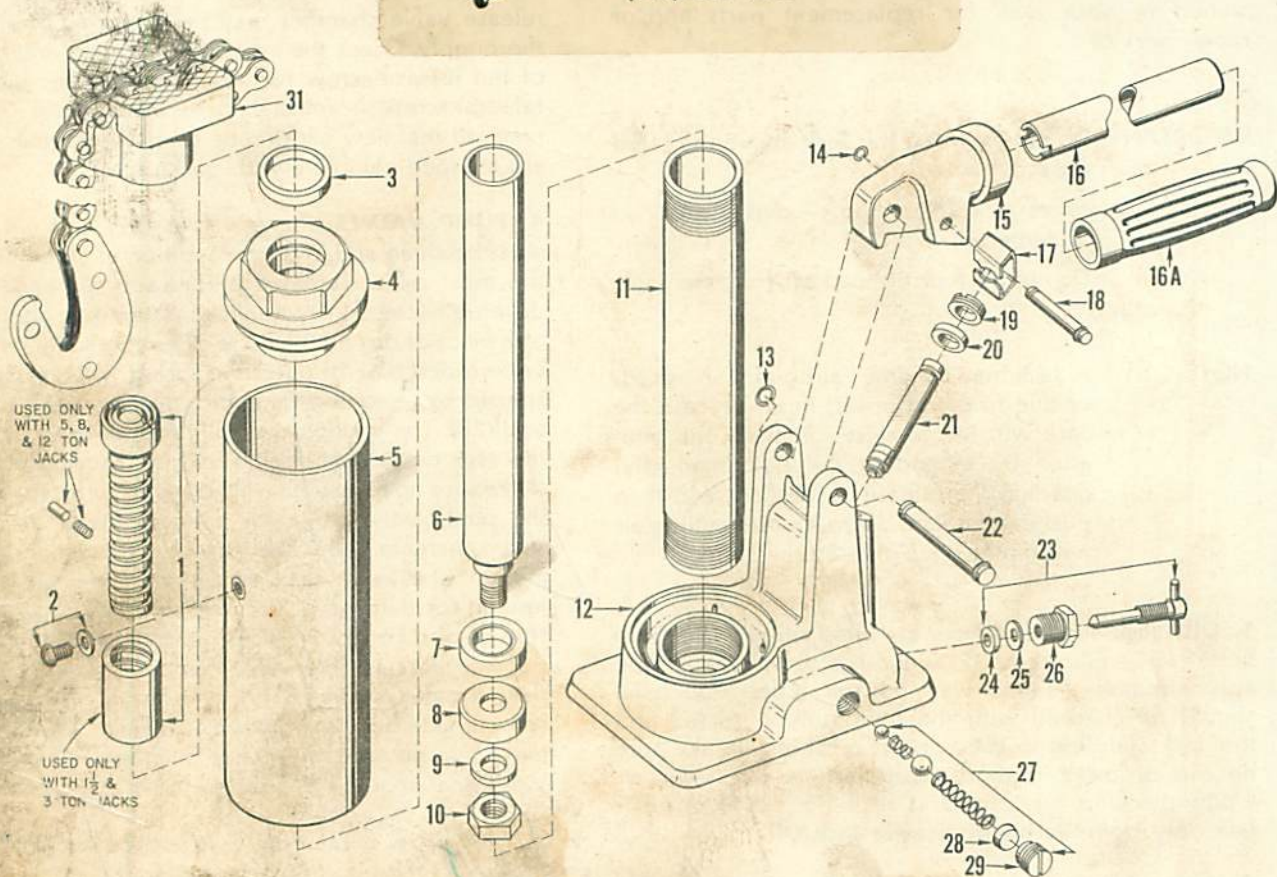


MODEL V1.23, E1.7F, E3.9A, E5.9A, E8.9A, E12.9A
 "SERIES 1"
 HYDRAULIC JACK
 REPAIR PARTS LIST



TRI-CITY HYDRAULIC JACK SERVICE

4628 N. Florida Avenue
 Tampa, Florida 33603-3700
 (813) 232-1230



Item numbers shown above are only for your convenience in locating the part on the parts list. When ordering, always specify the PART NUMBER—not the item number—and give complete name of part and model number of jack. If the length of the part is shown on the parts list, verify it with the old part. If different, state exact length and diameter of old part.

ORDER REPAIR PARTS DIRECT FROM NEAREST HEIN-WERNER OFFICIAL SERVICE STATION

HEIN-WERNER CORP. WAUKESHA, WISCONSIN 53186

AJAX, ONTARIO



MODEL V1.23, E1.7F, E3.9A, E5.9A, E8.9A, E12.9A
"SERIES 1"

HYDRAULIC JACK

GENERAL MAINTENANCE and OPERATING INSTRUCTIONS

With reasonable care, the Hein-Werner Hydraulic Jack will give a long life of service. Depending on the amount of usage, some vital parts may have to be replaced periodically. Contact the nearest Hein-Werner service station in your area for replacement parts and/or repair service.

IMPORTANT: Do not overload the Jack above the rated capacity.

Prevent "side-loading" — make sure load is centered.

Do not push or tilt load off from the Jack.

NOTE: A Jack may become "airbound" in transit, or due to being upset, in which case the Jack will fail to raise. Remedy this situation by extending the Ram manually, opening the release valve (23), and then pushing the Ram down, thus expelling air which may have entered the system.

1. OIL: Jack should always be filled with oil to filler hole level. Filler hole (2) is located on reservoir tube approximately $\frac{2}{3}$ the way up the tube. Oil level should be checked with the Ram fully retracted and the Jack standing in the upright position. Make sure no dirt or other foreign matter enters the reservoir while checking oil level and refilling. **IMPORTANT: Use only Hein-Werner Hydraulic Jack Oil.**

2. PUMP PISTON: Oil leakage around pump piston (21) while the Jack is under load, or short Ram stroke, is an indication the pump piston (21) needs replacement. To make this replacement, first remove the handle socket (15) and piston clip (17) then loosen and remove the packing nut (19). Old piston along with the packing (20) may now be removed from the Jack base (12). Before installing new piston and packing, make sure piston chamber is thoroughly clean. New pump piston should be coated with Jack oil to permit easy installation and to avoid damage to the pump piston cup.

3. RELEASE VALVE: If Jack fails to lift the load, hold the load, or the ram stroke is short, the Release Valve (23) may need cleaning or replacement. To make this

determination, remove the release valve by loosening release valve packing nut (26). Packing (24) and washers (25) may remain in the valve chamber when screw is removed, but these should also be removed so that the release valve chamber may be inspected and cleaned thoroughly. Check the valve seat for nicks and the point of the release screw for scratches and damage. If old release screw is reinstalled in the Jack, it is recommended that new packing be used. New release screws are shipped complete with packing.

4. PUMP VALVES: Pump valves (27) and valve seats must be clean and in good condition at all times. This is the most critical area of a Hydraulic Jack. Failure to develop necessary Hydraulic pressure may be the result of a piece of dirt on the edge of a valve seat, a damaged or corroded ball, or defective spring. Valves may be inspected by removing the pump valve plug (29) and valve seal (28). The springs and balls are removed by tipping the Jack on its side so that balls and springs drop out. Make sure no pressure is in the system prior to removing the pump valves by first opening the release valve. Valve chamber should be inspected for dirt and contamination. The valve seats should be given particular attention for damage or dirt. Balls and springs should be free of dirt, corrosion, nicks, notches, or other forms of damage. Reassemble valve components, replacing defective parts, in order shown in the illustration on the reverse side, i.e. (a) small ball-(b) small spring-(c) large ball-(d) large spring-(e) valve seal, and (f) valve plug. Valve seal should be installed using special tool SS-12.

5. RAM CUP: If the ram (6) lowers under load, it is an indication of oil leaking past a worn, damaged, or defective ram cup (8). Check the condition of the Ram Cup by removing the top nut (4) and extracting the Ram (6) from the Cylinder (11). While the Ram is removed from the Cylinder, the Cylinder should be checked for scoring or any other damage.

Before reassembly, remove old shellac from top of reservoir tube (5). Top of reservoir tube should then be brushed with shellac, and top nut (4) installed securely.

6. EXTENSION SCREW: Replace a damaged extension screw (1) by placing the ram in a soft-jaw vise, fully extending the screw, and tapping the screw gently to dislodge the locking pin. New extension screw may be reinstalled immediately.

USE ONLY GENUINE HEIN-WERNER HYDRAULIC JACK OIL IN ANY HEIN-WERNER JACK

REV. 2-3-65