KJ-106

Seal Kit Instructions

Weaver Jack Corporation

343 Lawrence Street

Adrian, MI 49221

KJ-106 Seal Kit

For Use with WA-72A & WA-72B 2 Ton Floor Jacks

COMPONENTS

S-6654 Piston Packing (3)

S-22961 Cylinder Cap Gasket

S-6016 Piston Ram Cup

S-7265 Pump Cup

S-7492A Pump Packing (3) 1-1/2” OD

S-17829 Large O-Ring

S-15047 Small O-Ring

S-2594 Ball Chamber Gasket

S-2750 Ball 1/2”

S-2505 Ball 5/16”

S-2499 Cotter Pin (2)

S-3234 Cotter Pin

Please note: If you have a discontinued model WA-72A jack, additional parts are required. If the rear of the cylinder is a casting which is held down by two cotter keys, rather than a machined block held down by metal tabs it is a WA-72A and (3) S-7492 Packing 1-1/8” OD are also required.

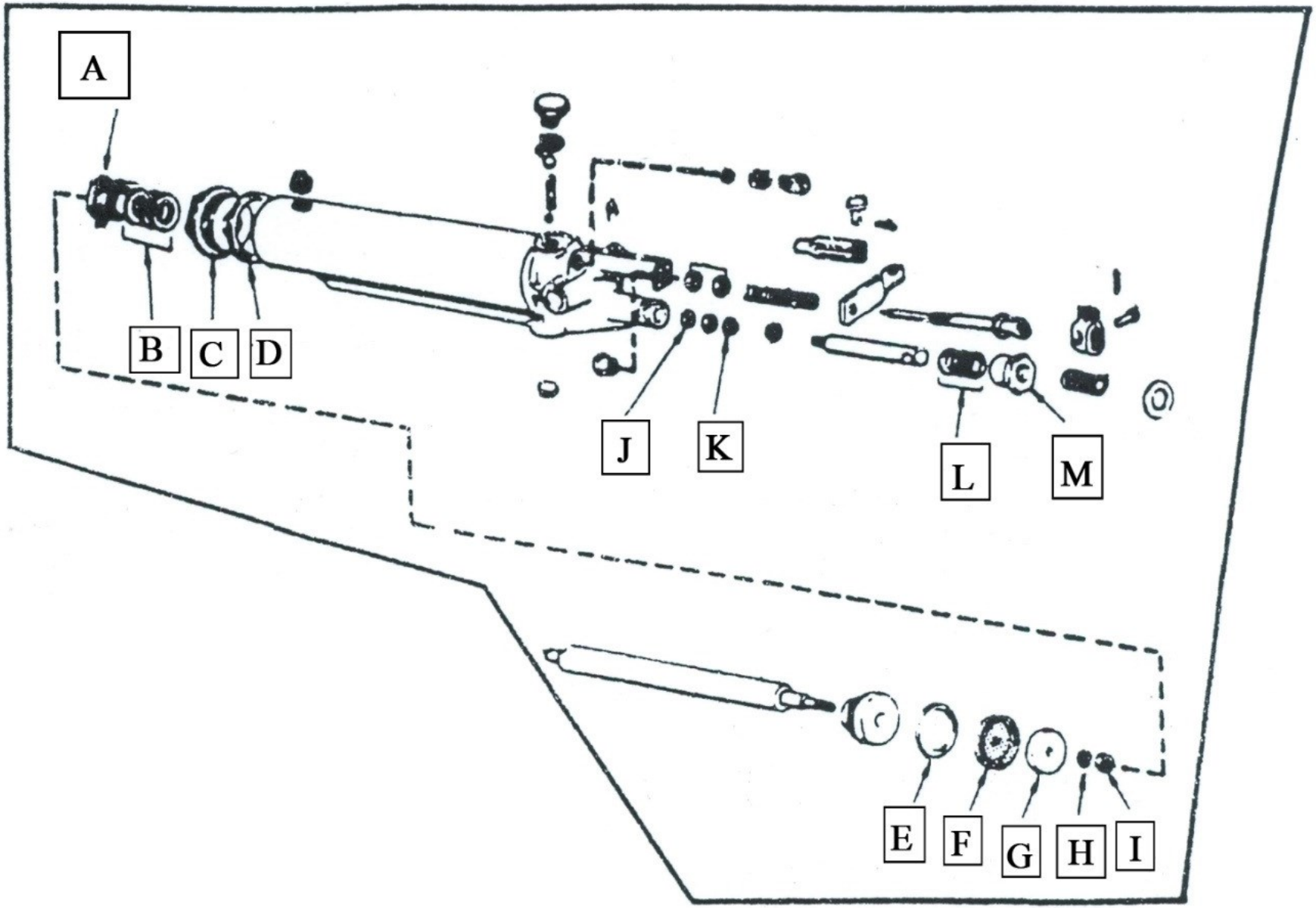
INSTALLATION INSTRUCTIONS

- The KJ-106 Seal Kit is for minor cylinder repairs
- Weaver Jack Corporation has a network of authorized service and repair centers to assist you if additional service is required
- Use mineral spirits or safety solvent to clean parts
- Use compressed air to dry parts
- Use only hydraulic oils that meet MIL-F-17111 011 standards, such as AW-32 light hydraulic oil

To Remove the Cylinder

1. Remove the cotter pin(s) or bolts in the cross head.
2. Remove the cotter and pin in the pump.
3. Remove the cotter and pin in the release yoke.
4. Place cotter key in while depressing the foot pedal. This allows for easy removal and reassembly if the spring is left on the return rod.
5. Raise the lifting arm by means of the saddle bracket and place a block of wood between the arm and the frame to hold up the arm.
6. The cylinder will be released at the forward end so that it may be removed as a complete unit for service.

Piston and Pump Assembly Derail for Cylinders



Ram Cup Replacement

1. After removing the cylinder unit, place it in a vise with the steel cylinder and piston up. The vise jaws should grip the steel block, not the cylinder. Remove the vent plug and drain the oil.
2. Remove the packing nut (A) and the three packings (B). Unscrew the cylinder cap (C) and lift the piston out of the cylinder.
3. Remove the nut (I), the lock washer (H), and the washer (G), which holds the cup (F) at the end of the piston. Put in the new cup (F) and replace the nut (I) and washer (H). Either peen the threads with a punch or use a thread locking compound to prevent the nut from loosening. Please note: the backup Teflon ring (E) is used only on some, but not all, WA-75A models.
4. When fitting the new cup (F) into the cylinder, use great caution as the cup passes the filler plug hole not to cut or otherwise damage the cup.
5. Replace the cylinder cap (C) and gasket (D).
6. Install the three new packings (B) and the packing nut (A).

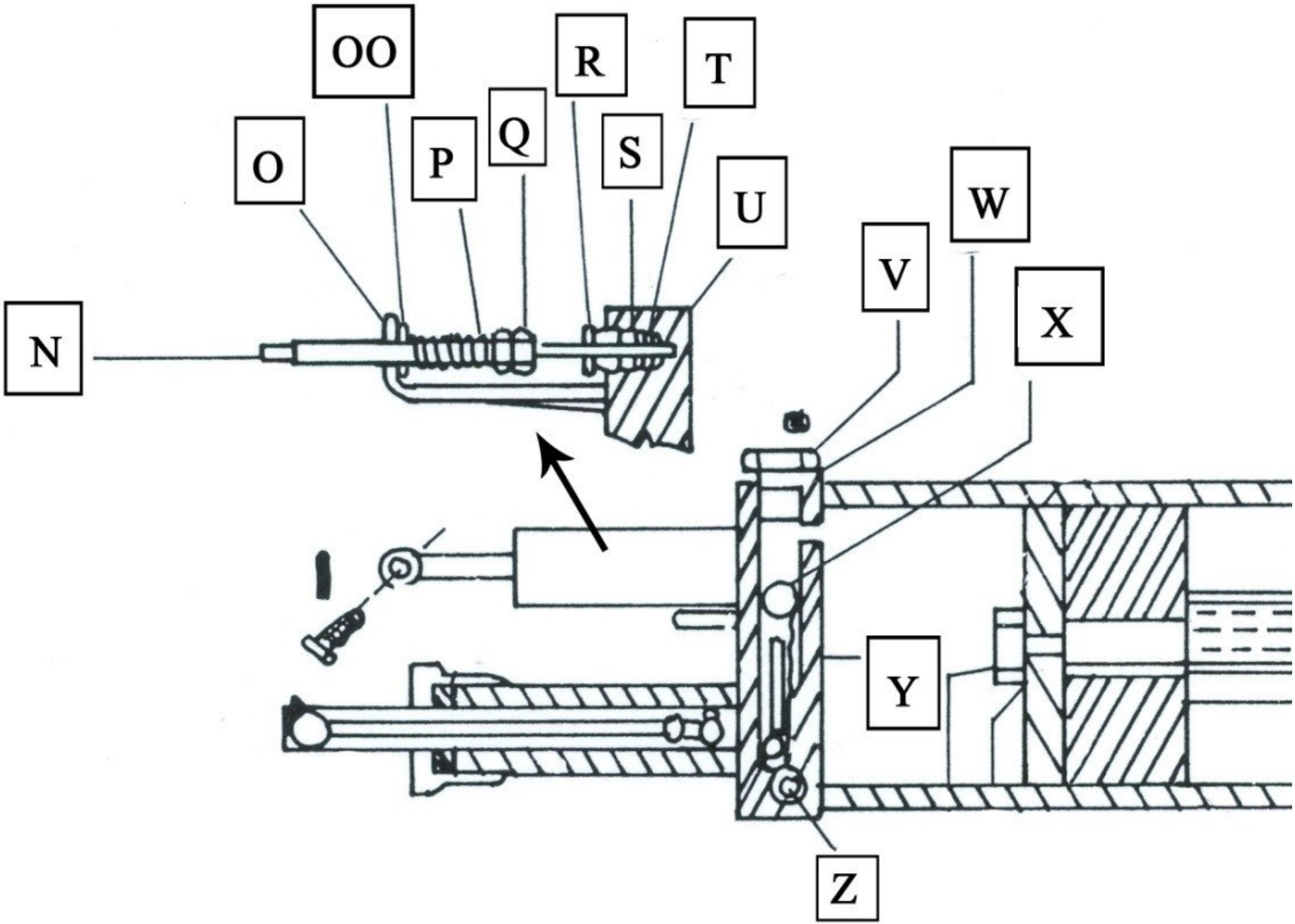
Tips:

- Excessive friction, chatter, and binding will occur if the cup nut is pulled down too tightly.
- Only use enough pressure to close the spring lock washer (H). Do not tighten until the cup heel begins to swell as this may cause problems.
- When servicing a jack with a synthetic cup, it may appear that the nut has become loosened, but this is not necessarily the case. It is only necessary to hold the cup against the ram with slight pressure to prevent leakage.

Pump Cup Replacement

1. Turn the cylinder unit pump end upward in a vise.
2. Unscrew the packing nut (M).
3. Remove the three packings (L) and pull out the pump plunger.
4. Remove the nut (J) that holds the cup (K) to the end of the plunger.
5. Insert new cup (K) and new packings (L).
6. Replace the nut (J) and washers.
7. Lubricate the cup with hydraulic oil when reassembling.
8. Either peen the threads with a punch or use a thread locking compound to prevent the nut from loosening.

Release Valve Group and Ball Valve Assembly Derail



Ball Valve Replacement

1. Remove the ball chamber plug (V).
2. Remove the two balls (X&Z) and the ball weight (Y).
3. Reassemble with the two new balls (X&Z), new plug gasket (W), and existing ball weight (Y) between the two balls.

Note: Whenever it is necessary to loosen or remove the ball chamber plug, the gasket (W) should be replaced with a new one. Oil leakage at this point is usually caused by trying to reuse an old gasket.

Release Valve Packing Housing O-Ring Replacement

1. Measure the distance from the bracket (O) to the first nut (P) on the compression ring accurately and write it down (approximately two inches).
2. Loosen the packing nut (R).
3. Remove nuts (P&Q), the spring, the valve rod (N), the valve guide (OO), and the packing nut (R). It is not necessary to remove the rod clevis.
4. Remove the packing housing (S) and replace the two O-Rings (T&U).
5. Reinsert the packing housing (S).
6. Reassemble the needle valve and parts with the packing nut (R) tightly secured.
7. Tighten the adjusting nut (P) to the original dimension that you wrote down in step 1 and lock it with nut (Q).

Release Valve Group (Upper) and Pump Assembly (Lower)

Release Group Needle Valve Adjustment

In the release group assembly, the spring governs the load that the jack will lift. When the pressure within the cylinder overcomes the spring tension, the release valve floats off the seat. It is imperative that the release valve floats freely in the release group assembly. To check: use your forefinger and thumb to grasp the release valve where the release clevis pin passes through and wiggle it from side to side. There should be a minimum of .002 to .004 clearance in the release valve guide (OO). If no movement is noted, follow the steps below:

1. Measure the distance from the bracket (O) to the first nut (P) on the compression spring accurately and write it down (approximately two inches).
2. Remove nuts (P&Q), the spring, the valve rod (N), and the valve guide (OO). It is not necessary to loosen the packing nut.
3. Insert the valve rod (N) through the bracket's (O) opening.
4. Slide the release valve guide (OO) onto the rod, but not seated in the hole, and insert the rod (N) into the packing nut's (R) opening.
5. Gently tap the end of the release rod (N) with a hammer until it stays firmly seated in the internal needle seat.
6. Slide the release valve guide (OO) towards the bracket (O). Normally it will fit smoothly into the bracket hole. Note where the center alignment of the rod in the bracket hole is off. Tap the welded bracket accordingly with a hammer to gently bend the bracket and correct the misalignment. It is in alignment when you can smoothly slide the valve guide into the bracket's hole.
7. Reassemble the release valve and parts.
8. Tighten the adjusting nut (P) to the original dimension you wrote down in step 1 and lock this with nut (Q).
9. Test the jack for proper operation.