

SERVICING HYDRAULIC PUSH ROD (Dealer and Mechanic Information)

Servicing push rod consists only of removing it from engine, disassembling hydraulic unit, washing the parts thoroughly, and reassembling.

There are two principal parts of the hydraulic unit. These are the plunger (3), and the cylinder (7). The plunger contains the check valve assembly, which is held in position by the plunger spring (6). It is recommended that only one unit at a time be taken apart for servicing, and that it be reassembled before working on any other unit, as plunger and cylinder are selectively fitted by the manufacturer to the clearance required to allow a definite leakage rate between plunger and cylinder. Plunger or cylinder of one unit must not be interchanged with plunger or cylinder of another unit. Neither the plunger nor the cylinder will be supplied separately on parts order for replacement purposes. Where either part is found in bad order, install a complete new hydraulic unit.

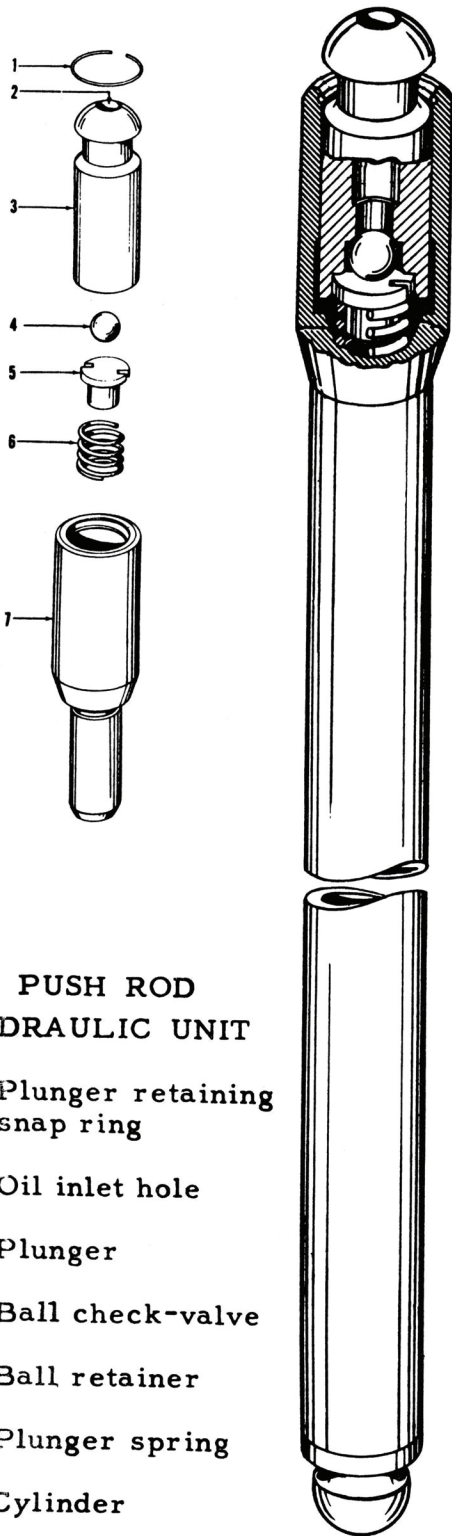
As the hydraulic unit cylinder is a press fit into push rod, it will be necessary to service unit without removing from push rod. Where it may be found that a complete unit must be replaced, cylinder can be forced out of push rod and a new unit pressed or driven in.

In disassembling the hydraulic unit, first remove snap ring (1) which is located at top of cylinder; then remove plunger from cylinder. In case plunger does not pull out of cylinder easily, grip top of plunger with a pair of pliers wrapped with tape, and pull with a twisting motion.

During the disassembly operation it is advisable to hold the hydraulic unit over a pan of clean solvent in which the parts are to be washed, or at least over a bench, so check valve parts will not become lost. After removing plunger, disassemble check valve parts (4) and (5), and wash all parts thoroughly.

After parts have been thoroughly washed, test the hydraulic unit to determine if check valve is holding, and also whether leakage past the plunger is still normal. This can be done as follows: (Do not oil any parts when making this test.)

Assemble ball (4), retainer (5) and spring (6) back into plunger; then, holding plunger in upside-down position so that ball falls into its seat, start cylinder onto plunger. Quickly push cylinder down over plunger and immediately release it. If unit is in good order and check valve is holding, cylinder should bounce back;



PUSH ROD HYDRAULIC UNIT

1. Plunger retaining snap ring
2. Oil inlet hole
3. Plunger
4. Ball check-valve
5. Ball retainer
6. Plunger spring
7. Cylinder

If when cylinder is quickly pushed down and immediately released, it stays down, either the check valve is leaking, or cylinder and plunger are worn to the extent that there is excessive leakage past plunger. In order to determine whether check valve is leaking, place a finger over hole (2) at the end of plunger, and repeat the test operation. If the cylinder now bounces back as it should, it is an indication that the check valve is leaking, possibly due to parts still being dirty. Re-wash parts thoroughly and repeat the test operation. If the cylinder still does not bounce back, the complete hydraulic unit should be replaced with a new one.

If the above described test shows the unit to be functioning normally, complete re-assembly by installing snap ring (1), making sure that it seats in its groove near the top of cylinder.

If a serviced push rod is to be used immediately it is not necessary to re-oil the hydraulic unit before assembling push rod in engine. The engine oiling system will re-oil the unit as soon as engine is started.

After reassembling push rod in engine, be sure tappet is accurately readjusted according to tappet adjusting instructions in this bulletin.

A newly serviced hydraulic unit may be noisy for several minutes after engine is started, as some time is required to work out all the air and fill unit with oil. Time interval between starting and quieting may vary from a few minutes to as much as thirty minutes.

This Dope Sheet contains all the information given in Dope Sheet No. 262 which it supersedes and also additional information for servicing the hydraulic push rod.