

REPAIRS – HERSEY NO. 1 CHECK VALVE ASSEMBLY

DISASSEMBLY

1. Remove top case.
2. Check lever valve mechanism, on smaller sizes, by lifting weight (18) as far as it will go. The swing arm (7) should be lifted until the roller (17) comes in contact with roller path on weight. Allow valve to close slowly to make sure it does not hang up at any point.
3. On larger sizes, lift weight alone. It should move freely and rest against roller at flat of roller path on weight.
4. Remove the weight.
 - a. Remove hinge spindle plugs (9).
 - b. Support weight, either with hands, or larger sizes, with a hoist.
 - c. With bronze driver (or using an old spindle), tap spindle (11) out from one side. When it extends from the bottom case, it can be pulled the rest of the way.

If corrosion deposits are present, remove with emery cloth to prevent jamming spindle in bushings (10).
5. Lift weight from case. Inspect the rubber bushings (8), bronze case bushings (10), and spindle (11) for wear.
6. On larger sizes, check operation of swing arm (7). It should move freely.
7. Remove swing arm, following procedure outlined above for weight.
8. Check rubber swing arm and roller bushings (8, 16) for wear, as well as the bronze case bushings and spindle.
9. To remove worn case bushings, insert a driver made of bronze or steel from outside case, and drive out of position.
10. Drive new bushings into place from inside case, using a lead hammer or a bronze driver inserted from opposite side.
11. Remove worn rubber weight, swing arm and roller bushings with a bronze driver. Use a plastic or lead hammer to install new bushings.
12. The clapper rubber (4) should be resilient and free of any indentation. Remove worn clapper rubbers by disassembling in order the clapper bolt cotter pin (1), clapper bolt nut (2), clapper disc (3), clapper (6), clapper rubber (4), and clapper bolt (13). If the rubber is still resilient and has not been deformed, it can be reversed to lengthen its useful life. Inspect rubber O-ring (5) in the clapper, and replace if defective. Assemble parts in reverse order.
13. To disassemble roller (17), remove pin clips (12) and slide pin (14) to one side. This releases roller and two roller washers (15).
14. To assemble roller, place roller and washers in position, pass pin through washers and roller bushing, and replace pin clips.
15. Check screw seat (19) for looseness, dents and corrosion. If screw seat has been dented or corroded, remove by turning counterclockwise, with chain wrench. Do not use a "prong" wrench, as it may distort the seat.
16. Place graphite grease on new seat gasket (20) and install gasket on threaded end.
17. Screw seat in place and tighten firmly with chain wrench.

REASSEMBLY

1. Hold swing arm in position.
2. Insert spindle through case and swing arm bushings.
3. Rest weight on swing arm and replace spindle in the same manner.
4. Apply pipe joint compound to spindle plugs, and tighten in place.
5. Install new top case gasket, and replace top case.