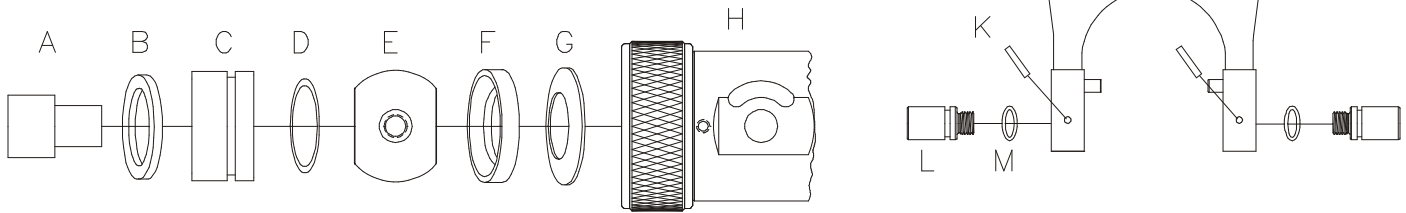




# BALL VALVE HANDLE REPAIR KITS

## D75-HRK, F100-HRK, F140-HRK



### PART 3/4" WATERWAY (D75)

- A D07535 Plastic repair mandrel
- B V3040 1" Hose Gasket
- C D07580 Rear Seat
- D VO-120 O-ring
- E D07530 Valve Ball\*
- F D07570 Front Seat
- G D07590 Belleville Washer
- H 3/4" Waterway Valve Body\*
- J D07560 Handle
- K V1900 5/32" x 7/8" Spirol Pin
- L D07540 Trunnion
- M VO-010 O-ring

### 1" WATERWAY (F100)

- F10035 Plastic repair mandrel
- V3130 1-1/2" Hose Gasket
- F10080 Rear Seat
- VO-126 O-ring
- F10030 Valve Ball\*
- F10070 Front Seat
- F10090 Belleville Washer
- 1" Waterway Valve Body\*
- F10060 Handle
- V1900 5/32" x 7/8" Spirol Pin
- F10040 Trunnion
- VO-012 O-ring

### 1-3/8" WATERWAY (F140)

- F14035 Plastic Repair Mandrel
- V3130 1-1/2" Hose Gasket
- F14080 Rear Seat
- VO-129 O-ring
- F14030 Valve Ball\*
- F14070 Front Seat
- F14090 Belleville Washer
- 1-1/2" Waterway Valve Body\*
- F14060 Handle
- V1920 5/32" x 1-1/8" Spirol Pin
- F14040 Trunnion
- VO-014 O-ring

\* Part E - Valve Ball and Part H - Waterway Valve Body are Not Included in Repair Kits

• Items needed (not supplied in kit): Bench Vise, Hammer, 1/8" Diameter Punch, Safety Glasses, Drill Press (Or electric drill)

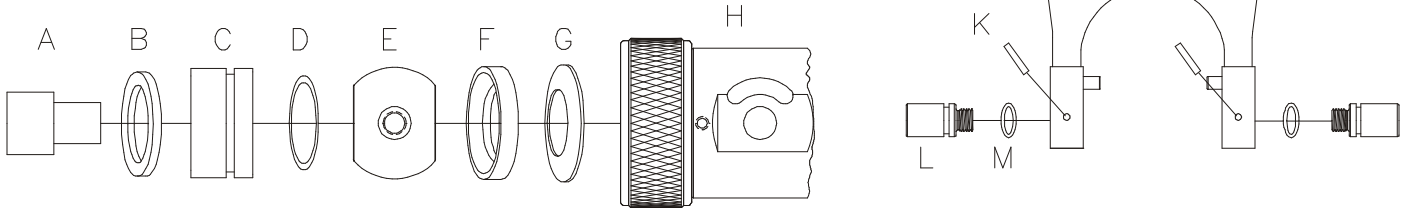
- 1) Remove and discard hose gasket "B", rear seat "C", and O-ring "D".
- 2) Open or close bench vise until there is a gap between the jaws of 1/4" to 3/8". Prop valve handle "J" over gap so that spirol pins "K" can be driven into the gap between the jaws. Drive out the spirol pins using a 1/8" diameter punch. Note: Do not use a nail set or pointed punch. This may cause pins to expand, making it very difficult to remove. If possible, remove broken handle at this time. Be sure to wear safety glasses.
- 3) Pad vise jaws with several rags. Open valve and place repair mandrel "A" through valve ball "E". Gently clamp valve in vise with one trunnion "L" pointing up. Place allen wrench in end of trunnion. Unscrew and discard trunnion along with O-ring "M". It may be necessary to place a piece of pipe or wrench on end of allen wrench for additional leverage.
- 4) Turn valve over in vise and repeat step #3.
- 5) Remove valve from vise and remove mandrel, ball, front valve seat "F" and belleville washer "G". Discard valve seat and belleville washer. Note: Earlier models may have an O-ring in place of the belleville washer.
- 6) Stand valve vertically on drill press table and clamp valve in vise with coupling end up. Drop belleville washer "G" into valve body (note orientation in drawing). Drop front valve seat "F" into valve body (note orientation in drawing). Drop valve ball "E" into valve body and insert plastic mandrel "A" through hole in ball.

**TASK FORCE TIPS, Inc.**

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800-348-2686 • 219-462-6161 • Fax 219-464-7155

# BALL VALVE HANDLE REPAIR KITS

## INSTRUCTIONS CONTINUED



- 7) Rotate valve ball so that threaded holes are aligned with trunnion hole in valve body.
- 8) Install O-rings "M" on trunnions "L".
- 9) Apply a thin film of grease (supplied) to O-rings and trunnions, taking care not to get any grease on the threads.
- 10) Apply one large drop of Loctite (supplied) on trunnion threads.
- 11) Place new handle in position over valve body. Make sure that "OFF" on the handle faces the coupling end of the valve.
- 12) Insert trunnion through handle and valve body while pressing down on the plastic mandrel with drill press chuck, or by hand. Note: It will take approximately 50 lb to compress the belleville washer. Screw the trunnion into valve ball. Do not tighten yet.
- 13) Repeat step #12 with the other trunnion.
- 14) Clamp one allen wrench in vise with approximately 3/8" of the short end above the vise jaws.
- 15) Place one trunnion on wrench in vise and second wrench in the other trunnion. The plastic mandrel should still be in the valve ball. Tighten both trunnions as tight as you can by hand. Do not use a wrench or pipe on the allen wrench or threads may be damaged.
- 16) With the plastic mandrel still in the valve ball, pull the handle back to the open or "ON" position. Locate the small dimple on the handle above the trunnions. Using the #22 drill (supplied), drill through the dimple, through the center of the trunnion, and out the other side. Support the handle below the trunnions on the edge of the drill press table or on a pile of boards to insure that the hole passes through the center of the trunnions.
- 17) Insert the new spirol pins "K" in the drilled holes and press, or gently tap them flush with the handles.
- 18) Remove plastic mandrel. Lubricate and install O-ring "D" on rear valve seat. Press valve seat into valve (note orientation in drawing). Install new hose gasket.

If you have trouble, call 1-800-348-2686 for advise or send valve and remaining new parts to our service department. Failure to follow these instructions, or poor workmanship voids warranty.

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