



6-Way Transfer Valve Maintenance and Repair Instructions

6-Way Transfer Valve

INTERNAL STACK REMOVAL

- 1.0 Rotate "T Handle" fully counterclockwise
 - 1.1 DO NOT FORCE PAST STOP
- 1.2 Push "Ball Handle" down to the "Sealing Pad" retracted position
 - 1.2.1 Rotate "Ball Handle" to the middle position
- 1.3 Remove Bonnet Assembly Socket Head Cap Screws
- 1.4 Remove "Internal Stack" Assembly out of valve body taking special care "NOT" to allow the sealing pads to rotate during disassembly.

INTERNAL STACK DISASSEMBLY

- 2.0 Ensure "T Handle" is rotated fully counterclockwise
- 2.1 Push "Ball Handle" down to the "Sealing Pad retracted position
- 2.2 Rotate "Ball Handle" to the middle position
- 2.3 With pin punch, remove "Roll Pin #1".
- 2.4 Remove Ball Handle
- 2.5 Slide "Bonnet Assembly" off of "Control Rod"
- 2.6 Remove O-ring, Seal Retainer #1 and Lip Seal #1 from Bonnet Assembly
- 2.7 Recording the placement of the sealing pads.

Note: "Upper Sleeve" assembly might have to be raised to allow sealing pad to rotate

 - 2.7.1 With pads in the vertical position as internal stack was removed from valve body. Place finger on the top of the "Upper Sealing Pad", rotating clockwise counting the number of turns until pad bottoms out including half turns.
 - 2.7.2 Record this number for the re-assembly of the valve sealing pads
 - 2.7.3 Upper and lower sealing pads may require a different number of turns.
 - 2.7.4 Repeat the process for the "Lower Sealing Pad"
- 2.8 Rotate Upper and Lower Sealing Pads counterclockwise removing the pads
- 2.9 Remove "Roll Pin #2" from "Control Rod" in "Upper Sleeve Assembly"
- 2.10 Remove "Upper Slide/Link Assembly"
- 2.11 Remove "Upper Sleeve Assembly"
- 2.12 Remove "Seperator Plate" from control rod
- 2.13 Remove Seal Retainer #2, Lip Seals #2 & #3 from "Seperator Plate"
- 2.14 Remove Roll Pin #3 from "Control Rod" in "Lower Sleeve Assembly"
- 2.15 Remove "Lower Slide/Link Assembly"
- 2.16 Remove Lower Sleeve Assembly"
- 2.17 Disassemble Upper and Lower "Slide/Link Assemblies" by driving out "Roll Pins #4 & #5

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INTERNAL STACK RE-ASSEMBLY

3.1 Re-assemble Upper and Lower "Slide/Link Assemblies" by replacing Roll Pins #4 & #5

Note: Trim the length of the roll pins if required to ensure they do "NOT" protrude past the O.D. of the "Slide". Binding of the "Slide" will occur if they protrude.

3.2 Slide "Lower Sleeve Assembly" onto "Control Rod"

3.3 Insert "Lower Slide/Link Assembly" into "Lower Sleeve"

3.4 Insert "Roll Pin #3" thru "Control Rod" in "Lower Sleeve" assembly

Note: Trim the length of the roll pins if required to ensure they do "NOT" protrude past the O.D. of the "Control Rod". Binding of the "Control Rod" will occur if they protrude.

3.5 Slide "Seperator Plate" onto "Control Rod"

3.5.1 Lubricate "Lip Seal #2 & 3" with fluid compatible with operating fluid

3.5.2 Install new "Lip Seal #2" onto "Seperator Plate" ensuring the open side of "Lip Seal" faces the "Upper Sleeve Assembly". Take special care not to damage sealing edge when sliding "Lip Seal" onto "Control Rod"

3.5.3 Install new "Seal Retainer"

3.5.4 Install new "Lip Seal #3" onto O.D. of "Seperator Plate" ensuring open side of lip seal faces the "Upper Sleeve Assembly". Take special care not to damage sealing edge when sliding "Lip Seal" onto "Seperator Plate"

3.6 Slide "Upper Sleeve Assembly" onto "Control Rod"

3.7 Place "Upper Slide/Link Assembly" into "Upper Sleeve"

3.8 Place "Roll Pin #2" thru "Control Rod" in "Upper Sleeve Assembly"

3.9 Re-assembly of "Bonnet Assembly"

3.9.1 Install new "Seal Retainer" onto "Control Rod"

3.9.1 Lubricate "Lip Seal #1" with fluid compatible with operating fluid

3.9.2 Install new "Lip Seal #1" onto "Control Rod" ensuring the open side of lip seal faces the sealing pads. Take special care not to damage sealing edge of lip seal

3.9.2 Install new "O-Ring" onto "Bonnet Assembly"

3.9.2 Install "Bonnet Assembly" onto "Control Rod"

3.10 Refer to your notes regarding "Recording of The Sealing Pad Placement" during the disassembly of the internal stack.

3.10.1 Screw Lower Sealing Pad clockwise into "Slide/Link" Assembly" until the pad bottoms out.

3.10.2 Screw Lower Sealing Pad counterclockwise just until shoe is in a vertical position.

3.10.3 Place finger on top of Lower Sealing Pad and turn counterclockwise number of turns recorded during "Internal Stack Disassembly"

3.10.4 Repeat this process for the "Upper Sealing Pad"

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3.11 Re-installing the "Ball Handle"

3.11.1 Ensure "T Handle" is rotated fully counterclockwise

3.11.1 Install "Ball Handle" into slot on "Control Rod"

3.11.2 Locate "Ball Handle" in the down "Sealing Pad Retracted" and middle position.

3.11.3 Re-install "Roll Pin #1"

