

HVA Cup Packaging

TO O-RING CONVERSION

APV Products improved the design of the hydraulic valve actuator cup packing. This design will result in reduced maintenance, ease of assembly and better sealing of hydraulic fluids.

To determine what parts are needed to convert, simply measure the o.d. of your present cup packing. It will be one of three sizes: 1-3/8", 2-1/2" or 3-1/2". Then refer to Figure 1 to determine parts needed.

Removal of Cup Packing

(Figure 1)

- 1. Remove HVA actuator assembly from machine.
- 2. Remove 2 actuator body screws (1).
- 3. Remove actuator guide plate (3).
- 4. Remove vent plug (8).
- 5. Remove actuator valve rod (4) from actuator body (9).
- 6. Remove valve rod nut (7) from rod and remove cup packing (5) and follower (6).

Installation of O-Ring Design

(Figures 1 and 2)

- 1. Install small "static O-ring" on valve rod thread end.
- 2. Install conversion disc and actuator rod nut.
- 3. Install back-up ring and O-ring onto conversion disc and lubricate

O-ring and back-up ring for ease of assembly. Be sure that the

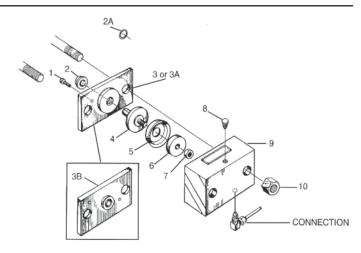
back-up ring is on the "air side" of the O-ring (see Figure 2).

- 4. Check air vent hole in actuator body for smooth radius, deburr as necessary to prevent "nipping" of the O-ring on installation.
- 5. Install valve rod assembly back into actuator body until it bottoms.
- 6. Re-install vent plug, finger-tight.
- 7. Re-install actuator guide plate and screws.
- 8. Re-install actuator on cylinder studs.
- 9. Bleed air from system through vent plug using low HVA pressure.



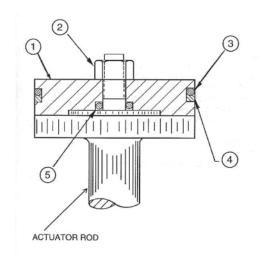
HYDRAULIC VALVE ACTUATOR ASSEMBLY (HVA) - FIGURE 1

NO.	QUANTITY	DESCRIPTION		
1	2	Actuator Body Screw		
2	1	Valve Rod Seal (Single-Stage Only)		
2 A	1	Valve Rod Seal (First & Second Stage Only)		
3	1	Actuator Guide Plate (Single-Stage Only)		
3A	1	Actuator Guide Plate (Second Stage Only)		
3B	1	Actuator Guide Plate (First Stage Only)		
4	1	Actuator Valve Rod		
5	*	Actuator Packing		
6	1	Actuator Packing Follower		
7	*	Valve Rod Nut		
8	1	Vent Plug		
9	1	Actuator Body		
10	2	Valve Body Stud Nut		



HVA CONVERSION CUP PACKING TO O-RING - FIGURE 2

ITEM NO.	DESCRIPTION	CUP PACKING O.D.		
HEWING.	DESCRIPTION	1-3/8"	2-1/2"	3-1/2"
1	HVA Rod Conversion Disc	905593	905592	905594
2	Actuator Rod Nut	823108	823108	823108
3	O-Ring	801567	801505	801601
4	Back-up Ring	801784	801785	801767
5	O-Ring	801786	801532	801532





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