

# 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.

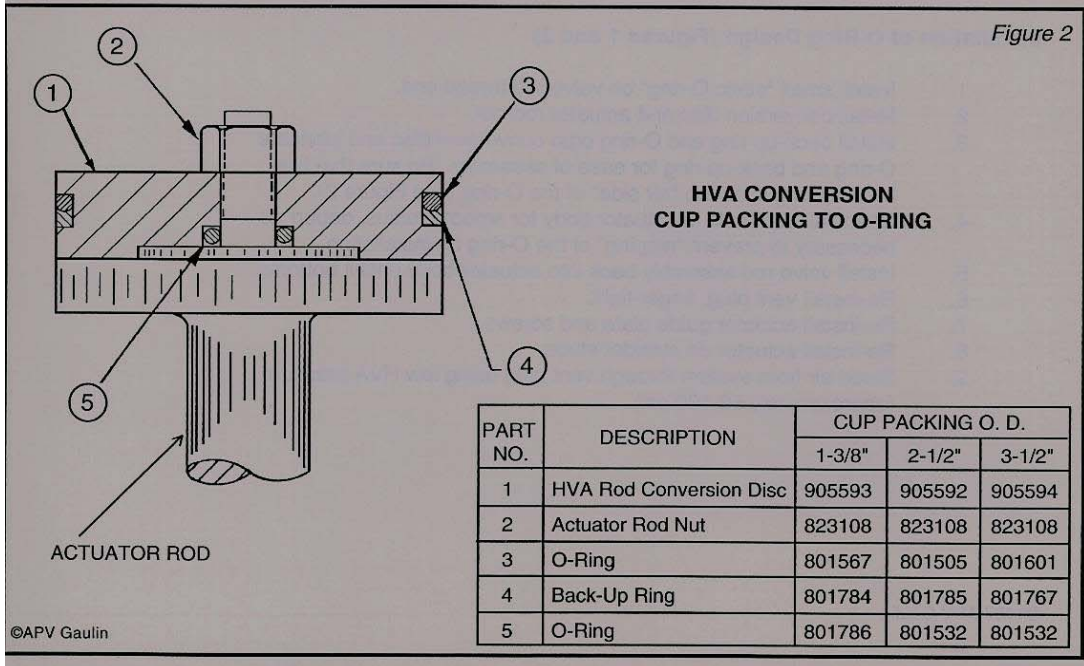
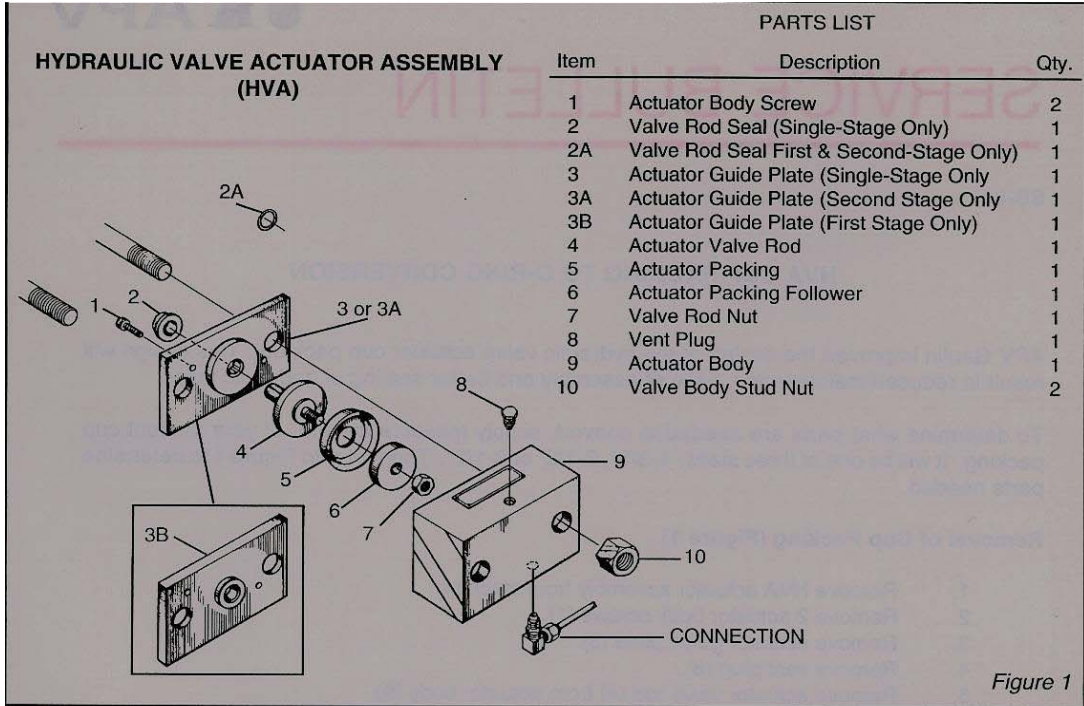
## Removal of Cup Packing (Figure 1)

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

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APV, An SPX Brand  
 Phone: 1-888-278-4321  
 Email: answers.us@apv.com

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