



**‘RQ-2’ QUICK EXHAUST
MODEL 1801
OPERATION MANUAL
MANUAL # OMP - 1801 - 03 - 99
(SEE SPEC. SHEET 1801)**

I. PRINCIPLE OF OPERATION

The Ruelco ‘RQ-2’ is a high pressure quick exhaust valve used to operate large hydraulic pistons by quickly venting cylinder hydraulic pressure through the bleed port for fast action. Loss of upstream hydraulic pressure moves the spool assembly, resulting in rapid exhaust of cylinder pressure. Resupply of upstream pressure moves the spool assembly; resulting in resealing of the bleed port and thereby reopening the cylinder.

II. INSTALLATION

The ‘RQ-2’ can be mounted either vertically, horizontally, or supported by piping from any of its ports. If it is supported by piping, care should be taken that the strength of the pipe fittings used is adequate to prevent the fitting from breaking off in the valve body should the valve be inadvertently struck.

Proper pipe thread sealant should be used on any pipe fittings threaded into the valve ports. If stainless steel fittings are used, a sealant that will prevent galling is required.

III. DISASSEMBLY (REFER TO SPEC. SHEET 1801)

- Suitable adjustable wrench for removing the cap.

- Pliers to remove the spool assembly from the body.
 - Suitable adjustable wrench for unthreading the seat.
- 1) To replace O-rings on the spool assembly (Item 7), the valve has to be completely disassembled.
 - 2) Unthread the cap (Item 1).
 - 3) Use the pliers to pull the spool assembly (Item 7) out.
 - 4) The seals on the spool assembly may now be replaced as per instructions given in the repair section of this manual.
 - 5) Unthread the seat (Item 11) and remove the ball (Item 5) and the spring (Item 6).

IV. REPAIR AND ASSEMBLY

- 1) Remove the seals from the spool assembly and the body seal from the cap.
- 2) Using an appropriate safety solvent, clean all parts.
- 3) Inspect the shaft assembly for any major damage such as burrs, knicks. Also, inspect it for straightness. Replace the shaft assembly if damaged.

- 4) Examine the valve body for any damage such as burrs, nicks, etc. Replace if damaged.
- 5) Examine the ball (Item 5) and seat (Item 11) and replace if worn-out.
- 6) Replacement seals from a Ruelco product repair kit are required for proper valve performance. It is recommended that all seals be lubricated before and after installation with a high quality silicon base grease.
- 7) Lubricate the body seal (Item 2) and install on the cap (Item 1).
- 8) Lubricate the shaft O-rings and install on the spool assembly along with the teflon back-ups (Item 10).
- 9) Lightly lubricate the bores in the valve body (Item 8).
- 10) Lubricate the seat O-ring (Item 3) and install on the seat (Item 11).
- 11) Push the spring (Item 6) inside the spool (Item 7) and thread the seat (Item 11) along with the ball (Item 5) onto the spool.
- 12) Push the spool-assembly (Item 7) inside the valve body (Item 8).
- 13) Thread the cap (Item 1) onto the valve body (Item 8).

V. RECOMMENDED MAINTENANCE

PROCEDURE

Operate Manually.
 Disassemble, inspect and lubricate.
 Replace all seals.

INTERVAL

Every 30 days.
 Yearly or as required.
 Every two (2) years or as required.