### **OPERATOR'S MANUAL**

27720-XXX

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

RELEASED: REVISED: 3-20-87 IPP

FORM 4800

### MINIATURE HIGH PRESSURE FLUID REGULATOR (DOWNSTREAM)

# IMPORTANT: READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT.

## MINIATURE FLUID REGULATOR MAXIMUM INLET PRESSURE 5,000 PSI (345 BAR)

27720-000 3,000 PSI (207 BAR) MAX. WORKING PRESSURE TEMPERATURE RANGE 0°F TO 200°F 27720-100 1,000 PSI (69 BAR) MAX. WORKING PRESSURE TEMPERATURE RANGE O°F TO 200°F

#### OPERATING INSTRUCTIONS

To increase outlet pressure, turn adjusting knob 29277 clockwise. To decrease outlet pressure turn adjustment knob 29277 counter-clockwise.

#### TROUBLE SHOOTING

- If outlet pressure rises or creeps check 29290 valve rod, 29291 seat, and 29296 ball for foreign material. If 29291 seat and 29296 ball appear to be worn or erroded, they should be replaced.
- If fluid is leaking through bleed holes in 29276 sleeve, check 29320
  Bal-seal® for nicks, cuts and signs of wear, if so, replace. "CAU-TION" read assembly instruction for proper procedure on replacement.

#### DISASSEMBLY

"WARNING": DO NOT DISASSEMBLE UNIT WHEN UNDER PRESSURE. RELIEVE ALL PRESSURE ON THE REGULATOR BEFORE STARTING THE FOLLOWING PROCEDURE.

- To diassemble unit, unscrew 29277 adjustment knob from unit. Hold 29276 sleeve in place with adjustable spanner and unscrew 29282 base. This provides access to 29907 valve and seat assembly, which can be removed with a 11/16" socket. Also remove 29285 gasket.
- To diassemble 29907 valve and seat assembly, unscrew 29289 spring retainer from 29281 seat body. Remove 29292 spring, 29296 ball, 29291 seat, 29287 "O" ring, 29290 valve rod, in the order given.

 To obtain access to 29320 bal-seal, unscrew 29279 sleeve plug. Remove 29280 retainer plate and 29115 spring. While holding 29284 plate in place with screwdriver or equivalent tool, unscrew 29283 screw from 29284 plate. Next remove Y147-62 retaining ring and remove the 29319 washer. The 29320 bal-seal can now be pushed out.

#### **ASSEMBLY**

- To assemble unit, replace 29320 bal-seal so the spring in the seal can be seen. Drop in 29319 washer and replace Y147-62 retaining ring. Place 29284 plate into spring compartment of the 29276 sleeve, with the slot up and push down through the 29320 Balseal<sup>®</sup>. Hold the 29284 plate in place with screwdriver or equivalent tool. Apply Loctite to threads of 29283 screw and screw into 29284 plate.
- Take 29281 seat body and place into it, the 29290 valve rod followed by 29291 seat, (with 29287 "O" ring in place), 29296 ball, 29292 spring, and screw in 29289 spring retainer tightly. Next screw 29290 valve seat assembly into the 29282 base. (Torque 29290 valve seat assembly to 170 in.-lbs.)
- Place 29285 gasket into the base of the 29276 sleeve. Then screw
  the 29282 base to the sleeve and tighten to 50 ft. lbs. of torque.
  Place 29115 spring into 29276 sleeve, followed by the retainer plate
  29280. Screw on 29279 sleeve plug, to the 29276 sleeve and complete assembly by screwing 29277 adjusting knob into 29279 sleeve
  plug.



