# **RED HEAD VALVES™**

mfd by MTM Inc. **One Ayres Way** Prvor, OK 74361

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## **RECEIVER REPAIR KIT**

### For PP20FRM, PP20FTM and PP20FTM-AT

NOTICE: SERVICE PARTS FOR RECEIVER UNITS WITH REMOVABLE SNAP RINGS OR HEX HEAD POPPET SLIDE STUDS ARE NOT FURNISHED WITH THIS KIT. CONTACT RED HEAD VALVES™ FOR PROPER SERVICING OF UNITS WITH <u>REMOVABLE</u>SNAP RINGS OR <u>HEX</u> HEAD POPPET SLIDE STUDS. IF YOU ARE UNSURE WHICH TYPE OF UNIT YOU HAVE, CONTACT RED HEAD VALVES™ FOR IDENTIFICATION.

### CONTENTS:

1 each #73-Q4330-U Quad ring seal: – X-seal, large cross-section

- 1 each #71-041-N O'ring nitril: Flange to black bulb seal with small cross-section
- 3 each #61-2019 Torsion spring
- 3 each #62-2020 Bush poppet slide
- 1 each #62-2027 Safety wire
- Snap ring, Permanent-type (not reusable after installation) 3 each #61-2021
- 1 each #69-RRK Receiver Repair Kit installation instructions, snap ring tool drawing and NOTICE

#### **INSTALLATION:**

- 1. Read attached Notice before proceeding. 2.
  - If applicable, remove black bulb cover.
    - a. Remove hose clamp.
    - Heat valve in oven to 150 degrees F°. b.
    - Remove black bulb cover from valve. C.
- 3. Replacing three (3) each #61-2019 torsion springs and three (3) each #62-2020 bushing poppet slides:

**NOTE:** Permanent-type snap rings must be installed with special tool (drawing included). Removal of snap ring is not recommended or necessary for torsion spring replacement. DO NOT RE-USE any type of snap ring after installation has occurred. DO NOT SUBSTITUTE: snap rings are not interchangeable.

- Remove X-seal. Depress poppet, roll X-seal out of groove or use a thin smooth blade (feeler gauge) between X-seal and groove sidewall and lift out. Machined surfaces are for sealing – "DO NOT DAMAGE".
- b. Heat valve flange to 200 F°. This will release red loctite applied to threads on poppet slide studs.
- c. Remove safety wire. Carefully copy loop, tie and safety wire routing for later replacement.
- d. Loosen three (3) each poppet slide studs, <u>leaving several threads engaged</u>. When gripping, do not damage bushing sliding surface.
- e. Remove only one poppet slide stud at a time. Do not damage bushing sliding surface
  - 1. Remove torsion spring and poppet slide bushing.
  - 2. Thoroughly clean poppet slide stud threads and flange female threads.
  - 3. Install new torsion spring and poppet slide bushing from service kit.
  - 4. Apply a drop of red loctite to threaded hole and a drop to poppet slide stud threads.
  - 5. Replace poppet slide stud. Repeat steps 1 5 above for each slide stud.
- 4. Replacing one (1) each #73-Q4330-U X-seal all units: Find X-seal in service kit and note yellow identifying mark.
  - Depress poppet, roll X-seal out of grooved or use a thin smooth blade (feeler gauge) between X-seal and groove sidewall and lift out. Machined surfaces are for sealing – "DO NOT DAMAGE".
  - b. Install new X-seal. Stretch X-seal over poppet ensuring X-seal does not <u>roll or twist</u> during installation. X-seal must be properly seated in groove.
- 5. If applicable, replace black bulb cover :
  - a. Heat black bulb cover in oven to 150 degrees F.
  - b. Replace flange o-ring (flange to bulb seal). Do not <u>roll or twist</u> during installation.
  - c. Press black bulb cover over flange being careful not to damage o'ring.
  - d. Install hose clamp.
- 6. Check valve for smooth <u>operation</u> and <u>fluid seal</u>.

You may contact Read Head Valves<sup>™</sup> if you need technical assistance or wish factory installation of your service kit at (918) 824-3700.

JINAP RINE Tool









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