

**!!!WARNING!!!**

READ AND UNDERSTAND ALL INSTRUCTIONS INCLUDED WITH THIS REPAIR KIT  
RELIEVE ALL PRESSURE FROM SYSTEM BEFORE REMOVING VALVE FOR SERVICE



**WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm**

**A. Disassembly**

1. Remove Set Screws and discard.
2. Remove Nut Assembly and retain.
3. Remove Nut Adapter O-Ring and discard.
4. Remove Latch Spring and discard.
5. Remove Screws, Handle Washer, Handle Plate, and Nylon Washer. Discard Nylon Washer and retain Screws, Handle Washer, and Handle Plate.
6. When removing Bonnet, Insert screw driver between Valve Body wall and Crank Assembly to prevent galling of Crank Assembly (Figure 1). Remove Bonnet, Bonnet O-Ring and Crank O-Ring. Retain Bonnet and discard Bonnet O-Ring and Crank O-Ring.
7. Remove Valve Assembly and discard.
8. Remove Crank Assembly. Discard Crank O-Rings, Nylon Washer, Sleeve, and E-Clip and retain Crank Assembly.
9. Remove Tapered Spring and discard.
10. Inspect Valve Body and clean if necessary, be sure interior is free of dirt, residue, and foreign particles.

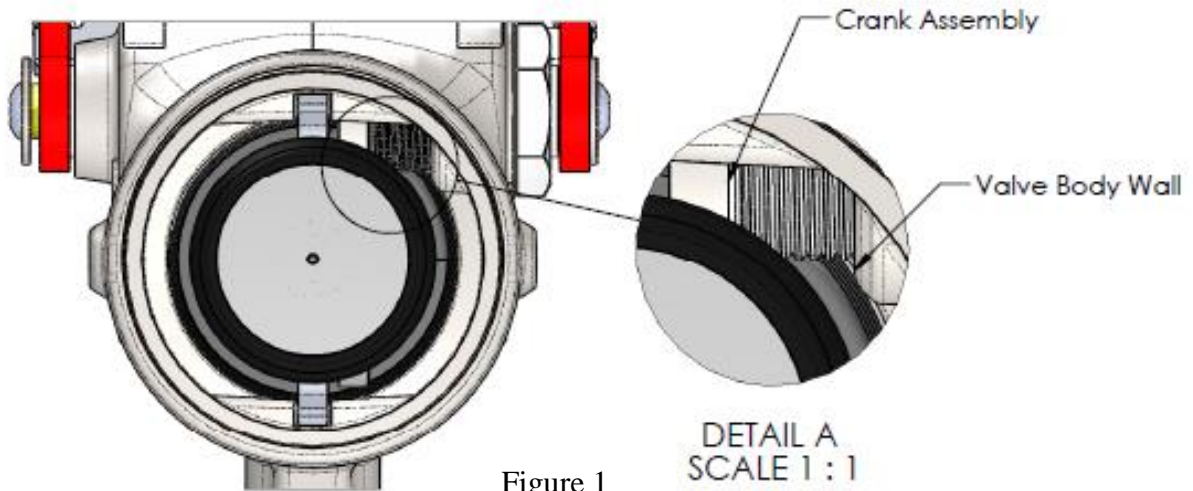


Figure 1

**Marshall Excelsior Company**

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www.marshallexcelsior.com

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## B. Reassembly

1. Apply Lubriplate to crank pin of Crank Assembly and install Sleeve and E-Clip. (Figure 2)
2. Apply Lubriplate to O-ring glands on crank shaft of Crank Assembly and install Crank O-Rings and Nylon Washer. (Figure 2)
3. Apply Lubriplate to entire surface of crank shaft of Crank Assembly. (Figure 2)
4. Install Tapered Spring into Valve Body, black end first.
5. Insert crank shaft of Crank Assembly through bonnet hole from the inside of the Valve Body.
6. Install Valve Assembly into Valve Body with large end of Yolk cam slot facing relief port.
7. Insert crank pin of Crank Assembly into cam slot of Yolk.
8. Apply Lubriplate to O-ring glands on Bonnet, install Bonnet O-Ring, cut Crank O-Ring radially through one side only, in wiper seal gland on Bonnet. (Figure 3)
9. Apply Loctite #271 half way up threads on Bonnet, install bonnet in Valve Body and tighten, making sure O-Ring was not pushed out.
10. Apply Lubriplate to Valve Body and install Nut Adapter O-Ring in Valve Body.
11. Apply Lubriplate to threads of Valve Body, install Nut Assembly in Valve Body and tighten.
12. Apply Loctite #242 to Set Screws, install and torque to 80 in-lbs.
13. Apply Loctite #242 to internal threads of Crank Assembly, install Nylon Washer, Handle Plate, Washer, and Screw and torque to 80 in-lbs.
14. Install Latch Spring using a screwdriver tip or other means.
15. Connect the valve assembly outlet to a pressure source of at least 150 PSI. Check for leaks at all joints and seals using a suitable leak detector solution such as "Marshall Excelsior" leak detector.  
**CAUTION: Do not use the valve if any joint continues to leak under pressure.**

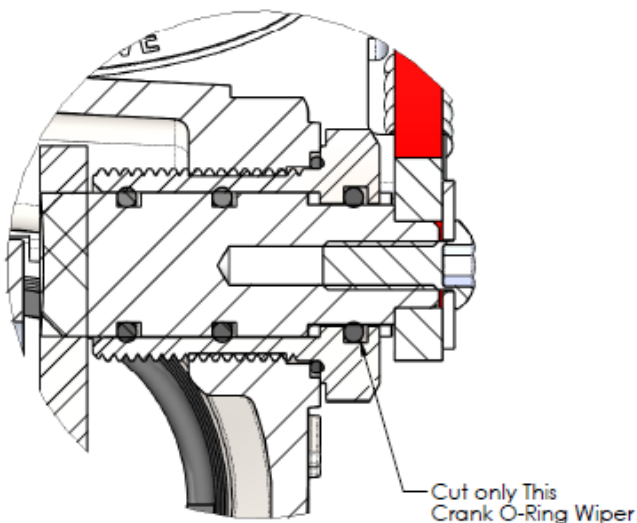


Figure 2

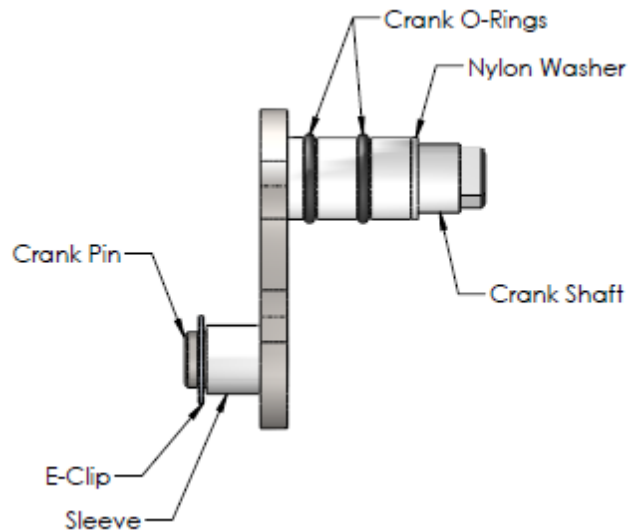
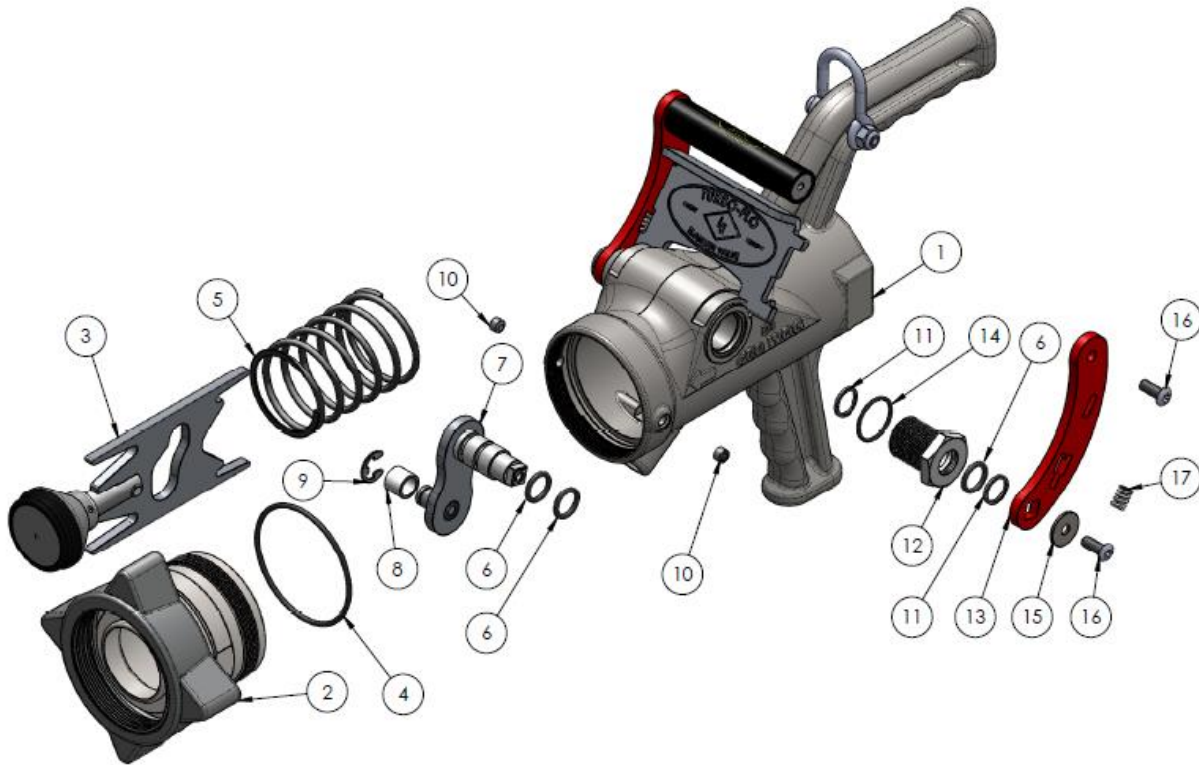


Figure 3



### C. Parts List

1. Valve Body
2. Nut Assembly
3. Valve Assembly
4. Nut Adapter O-Ring
5. Tapered Spring
6. Crank O-Ring (Qty. 3)
7. Crank Assembly
8. Sleeve
9. E-Clip
10. Set Screw (Qty. 2)
11. Nylon Washer (Qty. 2)
12. Bonnet
13. Handle Plate
14. Bonnet O-Ring
15. Handle Washer
16. Valve Screw (Qty. 2)
17. Latch Spring