



ME807VRK
LOW EMISSION SHUTOFF VALVE
VALVE REPAIR KIT

!!!WARNING!!!

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

NOTE: Numbers in brackets [] refer to the number in the valve component list.

A. Disassembly

1. **EVACUATE ALL PRESSURE FROM SYSTEM BEFORE ANY DISASSEMBLY OR REPAIR.**
2. With valve in open position, remove (2) Set Screws [2] from Valve Body [1] and discard.
3. Remove Adapter [3] and Acme Gasket [4] from Valve Body [1]. Retain Adapter [3] and discard Acme Gasket [4].
4. Remove Adapter O-Ring [5] from Valve Body [1] and discard.
5. Remove (4) Handle Retainer Screws [6], (2) Handle Washers [7], Bushing [8], (2) Nylon Washers [9], (2) Handle Plates [10], Handle Grip [11], (2) Latch Springs [12], and Latch [13]. Retain (4) Handle Retainer Screws [6], (2) Handle Washers [7], Bushing [8], (2) handle Plates [10], Handle Grip [11], and Latch [13]. Discard (2) Nylon Washers [9] and (2) Latch Springs [12].
6. Remove Bonnet [14], Bonnet Seal O-Ring [15], and Crank Seal O-Ring [16] from Valve Body [1]. Retain Bonnet [14] and discard Bonnet Seal O-Ring [15] and Crank Seal O-Ring [16].
7. Remove Valve Assembly [17] from Valve Body [1] and discard.
8. Remove Crank Assembly [19] and Tapered Spring [18] from Valve Body [1]. Discard Tapered Spring [18].

9. Remove E-Clip [20], Bearing Sleeve [21], Nylon Washer [9], and (2) Crank Seal O-Rings [16] from Crank Assembly [19]. Retain Crank Assembly [19]. Discard E-Clip [20], Bearing Sleeve [21], Nylon Washer [9], and (2) Crank Seal O-Rings [16].
10. Inspect Valve Body [1] and clean if necessary, be sure interior is free of dirt, residue, and foreign particles.

B. Reassembly

1. Apply lubriplate or suitable lubricant to Crank Pin [19a] of Crank Assembly [19] and install Bearing Sleeve [21] and E-Clip [20].
2. Apply lubriplate or suitable lubricant to o-ring glands on Crank Shaft [19b] of Crank Assembly [19] and install (2) Crank Seal O-Rings [16] and Nylon Washer [9].
3. Apply lubriplate or suitable lubricant to entire surface of Crank Shaft [19b].
4. Install Tapered Spring [18] into Valve Body [1] black end first.
5. Install Crank Shaft [19b] of Crank Assembly [19] through bonnet hole from the inside of the Valve Body [1].
6. Install Internal Valve Assembly [17] into Valve Body [1] with large end of yolk cam slot facing relief port.
7. Insert Crank Pin [19a] of Crank Assembly [19] into yolk cam slot of Internal Valve Assembly [17].
8. Apply lubriplate or suitable lubricant to o-ring glands on Bonnet [14] and install

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- Bonnet Seal O-Ring [15]. Cut Crank Seal O-Ring [18] radially through one side only and install into Bonnet [14].
9. Apply Loctite #271 (red) half way up threads of Bonnet [14]. Install Bonnet [14] into Valve body [1], ensure Crank Seal O-Ring [16] does not push out, tighten securely.
 10. Lock valve in the open position, apply lubriplate or suitable lubricant to Valve Body [1] and install Adapter O-ring [5] into Valve Body [1].
 11. Apply Loctite #242 (blue) or equivalent thread locker to threads of Adapter [3] and install into Valve Body [1], torque to 160 ± 10 FT LBS. Use acme cap and spanner wrench to tighten. **DO NOT REMOVE** acme cap until after Set Screws [2] are installed and tightened.
 12. Install (2) Set Screws [2] into Valve Body [1] and torque to 80 in-lbs. Remove acme cap.
 13. Install Acme Gasket [4] into Adapter [3].
 14. Apply Loctite #242 (blue) to internal threads of Handle Grip [11] and install Handle Plate [10] with Handle Retainer Screw [6] with Handle Grip [11] as shown. Leave Handle Retainer Screw [6] loose.
 15. Install Latch Spring [12] into Handle Plate [10] as shown. Install Latch [13] into Latch Spring [12] and slide Latch [13] into Handle Plate [10].
 16. Install remaining Latch Spring [12] into Handle Plate [10] with offset, slide Latch Spring [12] and Handle Plate [10] onto Latch [13], and install Handle retainer Screw [6] into Handle Grip [11]. Leave Handle Retainer Screw [6] loose.
 17. Install Nylon Washer [9] onto Crank Assembly [19]. Apply Loctite #242 (blue) or equivalent thread locker to threads of Crank Assembly [19].
 18. With valve in closed position, install assembly handle onto Valve Body [1].
 19. Install Handle Washer [7] and Handle Retainer Screw [6] onto Crank Assembly [19], torque to 80 in-lbs.
 20. Apply Loctite #242 (blu3) to internal threads of Valve Body [1], install Nylon Washer [9], Bushing [8], Handle Plate [10], Handle Washer [7], and Handle Retainer Screw [6] and torque to 80 in-lbs.
 21. Torque remaining Handle Retainer Screw [6] to 80 in-lbs.
 22. 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.**

C. Component List

1. Valve Body
2. Set Screw, Qty: 2
3. Adapter, Brass or Steel
4. Acme Gasket
5. Adapter O-Ring
6. Handle Retainer Screw, Qty: 4
7. Handle Washer, Qty: 2
8. Bushing
9. Nylon Washer, Qty: 3
10. Handle Plate, Qty: 2
11. Handle Grip
12. Latch Spring, Qty: 2
13. Latch
14. Bonnet
15. Bonnet Seal O-Ring
16. Crank Seal O-Ring, Qty: 3
17. Valve Assembly
18. Tapered Spring
19. Crank Assembly
 - 19a. Crank Pin
 - 19b. Crank Shaft
20. E-Clip
21. Bearing Sleeve

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