NAVSEA
STANDARD ITEM

FY-18

ITEM NO: 009-96
DATE: ***18 NOV 2016***
CATEGORY: II

1. SCOPE:

1.1 Title: Ball Valve; repair

2. REFERENCES:

2.1 S9086-RJ-STM-010/CH-504, Pressure, Temperature and Other Mechanical and Electromechanical Measuring Instruments

3. REQUIREMENTS:

3.1 Matchmark valve parts.

(V) "INSPECT PARTS FOR DEFECTS"

3.2 Disassemble, clean ***each*** internal and external surface free of foreign matter (including paint), and inspect ***each*** part for defects.

3.3 Repair valve as follows:

3.3.1 Polish the seating surface of the valve ball to a 32 Root-Mean-Square finish to remove high spots, nicks, and burrs.

3.3.2 Remove ***each*** existing and install new valve soft seats using those compatible with the system fluid, in accordance with manufacturer's specifications.

3.3.3 Chase and tap exposed threaded areas.

3.3.4 Dress and true gasket mating surfaces.

(I)(G) "VERIFY LEVEL I PARTS AND CLEANLINESS"

3.4 Assemble each valve, installing new packing, gaskets, diaphragms, springs, and soft seats, in accordance with the manufacturer's specifications. Install new fasteners.

3.4.1 Lubricate each MIL-V-24509 valve with grease conforming to SAE-AMS-G-6032.

(I) or (V) "INSPECT ALIGNMENT" (See 4.3)

3.5 Inspect alignment of ports in the ball valve and body with the ball fully seated. Ball misalignment shall not be of a degree that will restrict flow.

3.6 Hydrostatically test valve as follows:

3.6.1 Hydrostatic test equipment shall have the following capabilities:

3.6.1.1 Manual overpressure protection release valve.

3.6.1.2 Self-actuated and resetting relief valve with a set point no greater than 100 PSIG above the test pressure or 10 percent above the test pressure, whichever is less.

(V) "GAGE CHECK"

3.6.1.3 Master and backup test gages with gage range and graduation in accordance with Table 504-6-1 of 2.1. The backup gage shall be cross-checked to the master hydrostatic test gage up to the maximum test pressure just prior to start of testing. Master and backup gages shall track within 2 percent of each other.

3.6.1.4 Protection equipment shall be accessible and test gages shall be located where clearly visible and readable to pump operator and inspector.

(V)(G) or (I)(G) "SEAT TIGHTNESS" (See 4.4)

3.6.2 Test for seat tightness alternately on each side of ball valve with the opposite side open for inspection.

3.6.2.1 Ball shall be seated by hand force.

3.6.2.2 Test shall be continued for a minimum of 3 minutes if there is no evidence of leakage or, in the event of visible leakage, until accurate determination of leakage can be made.

3.6.2.3 Allowable leakage for a soft-seated ball valve: None.

4. NOTES:

4.1 Test pressures of 3.6.2 will be specified in Work Item.

4.2 Repair of valve operating gear will be specified in Work Item.

4.3 The paragraph referencing this note is considered an (I) if the valve is Level I. If the valve is not Level I, the paragraph is considered a (V).

4.4 The paragraph referencing this note is considered an (I)(G) if the valve is Level I. If the valve is not Level I, the paragraph is considered a (V)(G).

4.5 Test medium will be specified in Work Item.