

NAVSEA
STANDARD ITEM

FY-18

ITEM NO: 009-52
DATE: 18 NOV 2016
CATEGORY: II

1. SCOPE:

1.1 Title: Relief 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 **each** valve part.

(V) "INSPECT PARTS FOR DEFECTS"

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

3.3 Repair valve as follows:

3.3.1 Straighten stem to within 0.002-inch total indicator reading. Polish stem to a 32 Root-Mean-Square finish and remove raised edges and foreign matter.

3.3.2 Machine, grind, or lap and spot-in metallic disc to seat to obtain a 360-degree continuous contact.

(V) "INSPECT CONTACT"

3.3.2.1 Inspect contact using blueing method. Transfer line shall not exceed 1/16-inch in width.

3.3.3 Dress and true **each** gasket mating surface.

3.3.4 Chase and tap **each** exposed threaded area.

3.4 Assemble valve installing new packing, soft seats, and gaskets in accordance with manufacturer's specifications. **Install** new fasteners. |

3.5 Hydrostatically test valve as follows:

3.5.1 Hydrostatic test equipment shall have the following capabilities:

3.5.1.1 Manual overpressure protection release valve.

3.5.1.2 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"

3.5.1.3 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.

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

(I) "SHOP TEST"

3.5.2 Set valve to lifting pressure.

3.5.3 Seat tightness test shall be accomplished for a minimum of 3 minutes. Allowable leakage: None.

3.5.4 Purge valve of test medium.

3.5.5 Install wire and lead lock seals.

3.6 Attach a metal tag to valve, stamped with the following information:

3.6.1 Ship name and hull number

3.6.2 Valve number or identification

3.6.3 Valve lifting pressure

3.6.4 Date valve tested and set

3.6.5 Name of repair facility

4. NOTES:

4.1 Test medium, seat tightness, and lifting pressures will be specified in Work Item.

4.2 Steam relief valves shall have setpoint established using steam as the test medium.