MIL-V-8608A AMENDMENT 2 a hovember 1966 Superseding AMENDMENT 1 21 June 1966

## MILITARY SPECIFICATION

VALVES, FUEL SHUTOFF, ELECTRIC MOTOR OPERATED

This amendment forms a part of Military Specification MIL-V-8608A, 19 April 1963, and is mandatory for use by all Departments and Agencies of the Department of Defense.

Pages 1 and 2, paragraph 2.1, make the following changes:

- (a) Under "SPECIFICATIONS Federal" delete reference to P-S-661 and substitute: "P-D-680 Dry Cleaning Solvent". Add: "TT-S-735 Standard Test Fluids, Hydrocarbon" and "MIL-C-38300 Connectors, Electrical, Circular, Multicontact High Environment, Quantitative Reliability, General Requirements For".
- (b) Under "Military" delete reference to "MIL-S-3136".
  (c) Under "STANDARDS Military" add: "MIL-STD-701 Preferred and Guidance Lists of Semiconductor Devices".

Page 2, paragraph 3.2, twelfth line: Delete "MIL-S-3136" and substitute "TT-S-735". Page 3, paragraph 3.3.5: Delete, and substitute:

Indicator circuits shall be provided in accordance "3.3.5 Indicator circuits. with figure 3.

Page 4: (a) Paragraph 3.5.5: Delete, and substitute:

Electrical connectors shall conform to MIL-C-"3.5.5 Electrical connectors. 38300 of the part number shown on figure 3."

(b) Paragraph 3.5.7: Delete, and substitute:

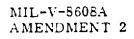
"3.5.7 <u>Electrical failure</u>. The valve electrical circuit shall conform to figure 3 to provide protection against inadvertent actuation of the valve due to electrical short circuits. The valve shall not change positions due to electrical power failure."

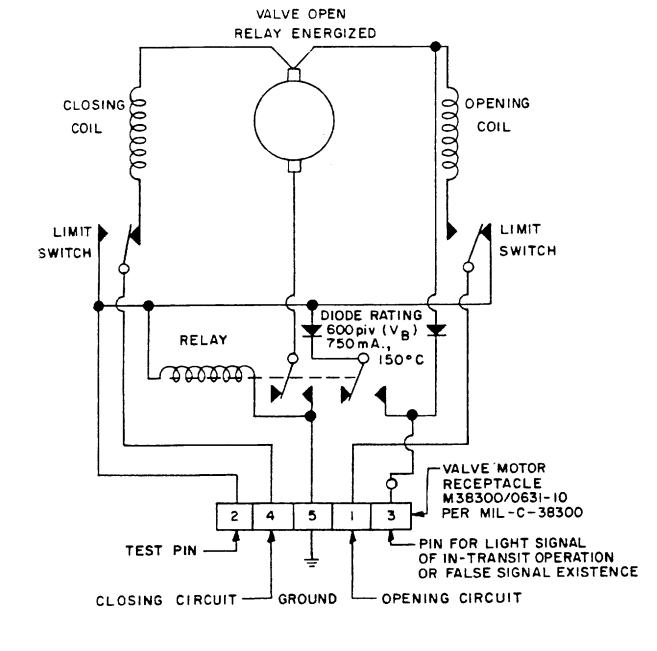
> (c) Paragraph 3.5.8: Renumber this paragraph as 3.5.9 and add a new paragraph 3.5.8, as follows:

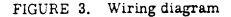
The valve shall not change positions due to "3.5.8 Mechanical stability. vibration or other extraneous forces normally encountered in service."

(Add new figure 3 Wiring diagram, attached.)

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(d) Add a new paragraph 3.5.10:

"3.5.10 <u>Semiconductors</u>. Diodes used in the valve electrical circuit shall be one of the "preferred" types selected from MIL-STD-701 with a minimum rating as specified on figure 3."

Page 6, paragraph 4.5.3:

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- (a) Fourth line: Delete "MIL-S-3136, type I" and substitute "TT-S-735, type I".
- (b) Sixth line: Delete "P-S-661" and substitute "P-D-680".

Page 13, paragraph 4.6.10.1: Delete the second paragraph and substitute:

"The valve shall be tested in both open and closed positions with a voltage of 18V applied to the selected position terminal and 30V shall then be applied to the opposite position terminal. Voltage shall then remain applied to both terminals until the valve body temperature has stabilized. The valve shall remain in the selected position and the valve body temperature shall not exceed 200°F. Any damage to the motor as a result of this test shall be cause for rejection."

Page 13, paragraph 4.6.10.2:

(a) Delete the first sentence and substitute:

"The valve shall be operated at 107, 115, and 117.5 volts and every combination of 380, 400, and 420 cps against a fuel shutoff pressure of 60 psi."

(b) Delete the second paragraph and substitute:

"The valve shall be tested in both the open and closed positions with a voltage of 107V applied to the selected terminal, and 117.5V shall then be applied to the opposite position terminal. Voltage shall then remain applied to both terminals until the valve body temperature has stabilized. The valve shall remain in the selected position and the valve body temperature shall not exceed 200°F. Any damage to the motor as a result of this test shall be cause for rejection."

Page 13, paragraph 4.6.11.1: Delete the third and fourth sentences and substitute:

"At the option of the contractor, capacitors and relays may be disconnected during this test. The capacitors and relays shall then be subjected to the following alternate

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test conditions. While being subjected to 1.3 inches Hg absolute pressure, capacitors shall be subjected to 150V, do for 1 second, and relays to 500V (rms), 60 cps for 1 minute."

Page 15: Delete the "NOTICE" paragraph.

Custodians: Army - AV Navy - AS Air Force - (11) Preparing activity: Air Force - (11)

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Reviewer activities: Army - AV Navy - AS Air Force - (11), (82)

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