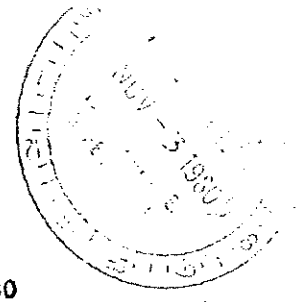
Files



October 29, 1980

Hydraulic Institute
712 Lakewood Center North
14600 Detroit Avenue
Cleveland, Ohio 44107



Attention: Mr. Robert H. Ecker

Re: HI Bulletin No. 259-80

Subject: Revision to MIL-P-17840C
Close coupled Centrifugal Pumps

Gentlemen:

In reference to your letter of September 24, we submit the following comments for consideration and discussion:

Page 5 - Table I, Materials

Casings (Salt Water) - (CN7M or CN7MS)
Procurement of sound castings restricted due to limitation of available foundries. Would substitutes be acceptable?

3.3.1.12.3 - Mounting bracket -
Tapped hole to be tapered thread.

3.3.2.3 - Will straight thread with "O" ring taps per MS16142 be permitted?

3.3.2.4 - Material for vent cock and plugs.
Tapered pipe threads or straight thread fittings with "O" rings.

3.3.4.1 - For cold water pumps, will ceramic seals be acceptable?
Will back-up packing be required for all pumps?

3.3.4.2 - Stub sleeves not listed in Table 1, Materials.

3.6.3(K) - Pumps cannot accommodate one nameplate containing complete data required. We propose use of standard nameplate on all pumps, plus a bottom section nameplate for MHC pumps, mounted directly below the standard nameplate. Middle nameplate (WARNING: For MHC pumps only) to be separate nameplate for attaching to side of mounting bracket.

We apologize for not meeting your date of October 24, 1980.

Yours very truly,

M. T. DAVIDSON COMPANY

James A. Donohue
Sales Manager

JAD/mw

SLM00510

Detailed Comments on Proposed Revision C to MIL-P-17840

1. The proposed revision does not require a hardened surface in way of the backup packing and allows the backup packing to wear directly against the motor shaft. SEA 08 is concerned that this may result in the need to replace the motor shaft after using the backup packing for only a short period of time.

NOT PRACTICAL TO INSTALL SLEEVE UNDER PACKING

SEA 532 should evaluate if an easily replaceable, hardened sleeve should be required in way of the backup packing. Since the surface the packing wears against would wear faster the higher the sealing pressure and higher the packing rubbing speed, maybe a hardened sleeve need only be required for specific pump sizes. This evaluation should take into account the Navy's experience with packed pumps.

PACKING TEST deleted from MIL-P-17639 IN ADDITION, SLEEVE INSTALL CLASS C

2. In order to provide assurance that the backup packing will perform satisfactory, the specification should include a test of the backup packing. The specifics of this test should be the same as those in MIL-P-17639. This requirement may help extend the life of the surface the packing wears against because this test may show that the pump technical manual should require generous packing leakage.

REVISED

3. Paragraph 3.3.1.9 should be clarified. The second sentence implies that tapered pipe threads are only allowed on grease fitting while MIL-STD-777, which is invoked by this paragraph, would also allow tapered pipe threads for other pump applications (e.g., gland leakage drain connection).

SAME AS 3.3.1.2 of 17639F - REVISED TO RECOMMEND OPERATIONAL

4. Paragraph 3.3.1.11.1.3 states "Each pump shall have a service life of 10 years of which 40 percent shall be actual operation". SEA 08 disagrees with specifying such a short service life in the specification. Our experience shows that the pumps can probably last the life of the ship if weld repairable materials are specified for major pump parts. Our experience is also that there is little, if any, cost difference between a pump with a weld repairable casing and a non-weld repairable casing. Therefore, paragraph 3.3.1.11.1.3 should be revised to delete a specific service life. In its place a general, long term, service life requirement, similar to the service life requirement in the current revision of the subject specification, should be specified. In addition non-weld repairable, gun metal and valve bronze should be deleted from the list of allowable materials for casings and mounting brackets and weld repairable, cast, copper nickel substituted.

CONFORM TO 17639 REVISE

5. The specification invoked for highly alloyed steel should be changed to ASTM A744 to ensure that wetted surfaces of the material are stress relieved after any welding. Stress relieving after welding is necessary to restore the corrosion resistance of the material.

CONFORM TO 17639

6. Reference to Note 1 for the casing wearing rings in the materials table should be deleted since it is unnecessary and could be confusing. (not essential).

SLM00511