

HD-05 Port and Starboard Shaft Seal Replacements

Part 1: SCOPE:

- 1.1 The intent of this specification shall be to overhaul two (2) 840 MOD 800 MA seals.

Part 2: REFERENCES:

2.1 Guidance Drawings/Nameplate Data

- 2.1.1. LIPS Drwg #A006682
- 2.1.2. The WARTSILA / LIPS contact is:
Ron Van der Linden
Tel: (902) 861-1993Ref.
LIPS dwg # A1-11582Prop.
Diameter: 4800 mm
Material: Cunial
Mass per blade: approx. 3,500 kg x 4 blades
Mass Propeller Hub: 23678 Kg
- 2.1.3. LIPS Arrangement Of Shafting Drawing # A006759
- 2.1.4. Waukesha LIPS Forward Seal Assembly Drawing # A109716

2.2 Standards

- 2.2.1. The following Coast Guard Standards and or Technical Bulletins must be adhered to in the course of executing this specification. Copies of these standards and bulletins can be obtained from the CCG Technical Authority.
- 2.2.2. Canadian Coast Guard Fleet Safety Manual (DFO 5737)
- 2.2.3. Coast Guard ISM Confined Space Entry 7.D.9
- 2.2.4. Coast Guard ISM Hotwork procedures
- 2.2.5. Coast Guard ISM Fall Protection procedures
- 2.2.6. Canadian Coast Guard Welding Specifications for Ferrous Materials, Revision 4. (TP6151 E)
- 2.2.7. CWB CSA 47.1 latest revision Division I, II or III
- 2.2.8. SSPC-SPT

2.3 Regulations

- 2.3.1. Marine Machinery Regulations CSA

2.4 Owner Furnished Equipment

- 2.4.1. The contractor shall supply all materials, equipment, and parts required to perform the specified work unless otherwise stated.

Part 3: TECHNICAL DESCRIPTION:

3.1 General

- 3.1.1. The contractor will be retaining the services of the Field Service Rep for all of the work on this item which shall be carried out in accordance with the recommended manufacturer's instructions and under the direction of the WARTSILA / LIPS Field Service Representative.

- 3.1.2. Contractor shall have an allowance of \$50,000 for the services and travel of the FSR, to be adjusted up or down via 1379 action upon proof of invoice.
- 3.1.3. Note: Wartsila shall be responsible for the machining on their allowance, of the split phosphor bronze seat as per installation guidelines with contractor assistance as required.
- 3.1.4. Contractor is to allow 150 hours for assistance to the FSR and for the shipping of the seat assemblies to and from machining.
- 3.1.5. Seal shall be assembled in good order taking care on mounting the housing concentric with the liner. Measurements shall be taken during and after assembly to ensure correctly aligned. Three (3) type written copies of the final measurements shall be given to the Chief Engineer.

3.2 Location

3.2.1.

3.3 Interferences

- 3.3.1 Contractor is responsible for the identification of interference items, their temporary removal, storage and refitting to vessel.

Part 4: PROOF OF PERFORMANCE:

4.1 Inspection

- 4.1.1. All work shall be completed to the satisfaction of the Chief Engineer, Wartsila Field Service Rep, and TCMSB Inspector.

4.2 Testing

N/A

4.3 Certification

N/A

Part 5: DELIVERABLES:

5.1 Drawings/Reports