TITLE:

ENGINE ROOM MAINTENANCE REPORT- PORT AND STARBOARD HEAT EXCHANGER.



Retention period : 5 Years Retention Place : Ship/Office Retained by: Technical Dept. Rev.: 0 02/02/2014

DATE: 26-10-2021

## WORK DONE:

- a. Prior to maintenance of the starboard main engine heat exchanger, the heat exchanger was isolated by shutting off the line valves. The heat exchanger was drained using the drain cock the drain cock was opened to ensure all water drained from heat exchanger.
- b. End covers were dismantled, all scales were removed with wire brush and all tubes were cleaned with a condenser cleaner to prevent reduction of heat transfer. The tubes, covers and surface flushed with fresh water to remove dirt.
- C cooler core was soaked in ethylene glycol for 24hours and removed cleaned
- d Heat exchanger pressure testing carried out by hydrostatic method at about 7 bars by blanking one end and introducing water by hydrostatic method at pressure of 7 bars at 15minute there was no leakage found from the tube.
- e The zinc anodes were checked and found depleted and were replaced with new ones on the cover to prevent it from galvanic corrosion. Also the gaskets were changed on both end covers. Unit was coupled. And all isolation valves were opened, drain cock closed and main engines started. All temperatures were normal according to manufacturer's specifications.

**REMARKS:** Both main engine temperature were normal according to manufacturer's specifications, indicating proper function of the heat exchangers.

NOTE: No leakages were observed during the hydrostatic pressure testing.

Chief Engineer

2<sup>nd</sup> Engineer

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TITLE: ENGINE ROOM MAINTENANCE REPORT- PORT AND STAR BOARD. OIL COOLER.



**RETENTION PEROID: 5YEARS** 

RETENTION PLACE: SHIP/OFFICE

RETAINED BY:TECHNICAL DEPARTMENT

Rev 02/02/2021

DATE: 26-10-2021

WORK DONE:

- a During the process of caring out maintenance on both main engines lubricating oil cooler. Lubricating oil suction line valves to the cooler closed and sea water line valve also shut off. The cooler was drained using drain cock the drain cock was open to make sure that water get rid of the water.
- b End covers were dismantled, all scale formation was removed wire brush and all tubes were cleaned with a condenser cleaner to prevent reduction of heat transfer. The tubes covers and surface flushed with fresh water to removed sludge through hydrostatic method.

C cooler core was soaked in ethylene glycol for 24hours and removed cleaned.

d Lubricating oil cooler pressure tested by hydrostatic method by blanking one end of the cooler and introducing water by hydrostatic ways at pressure of 8bar by 20minute. There was no leakage found from the tubes.

e After pressure testing zinc anode secured in the cooler to prevent galvanic corrosion .Also new gasket made and fixed on both covers, new nut and bolts replaced and the cover secured and all

isolated valves were opened drained cock closed and both main engines started oil pressure and temperature are okay according to the manufacturer's specification,

REMARKS: Both main engine temperature were normal according to manufacturer's specifications

Indicating proper function of the oil coolers.

NOTE: No leakages were observed during the hydrostatic pressure lesting.

Chief Engineer

nd Engineer

Marine supt. 47

ALL SIGN

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