Stern tube leakage leading to flooding of Engine room.

Casualty Circular No. 1 of 2008

NO: 11-NT(3)/2005 Dated: 8th Jan, 2008

SUB : Stern tube leakage leading to flooding of Engine room

OBJECTIVES:

- To share and disseminate valuable information with ship-owners, ship managers, Masters and crew of a ship regarding the significance of observing good engineering practices during the operation of the vessel in port.
- To guide the Master, engineers and crew involved in ship and engine room operation to exercise due diligence and care while the vessel is in port and conducting loading operation.

NARRATIVE:

An Indian ship reported leakage of sea water in engine room from the stern tube during the loading operation at a foreign port. In order to control the situation the master of the vessel tried out various options in consultation with the chief engineer and experts from shore office without any success. A barge was also deployed to remove the leaking water from the engine room. The sea water leakage resulted contamination of main engine sump oil. The following day it was reported that water ingress level has increased in the engine room bilges. The services of qualified divers were used by the ship owners in consultation with classification society, Harbor & Port State Control Authorities to restrict the leakage of water through the stern tube using improvised clamps and packing. The leakage of water through stern tube was brought under control after 2 days of the occurrence of this incidence.

Following this incident, the flag administration suspended safety management & safety construction certificates. The class certificate was also withdrawn by the concerned issuing authority. The vessel was finally towed from the port for emergency dry docking.

OBSERVATIONS:

- This vessel had frequent machinery break downs prior to this incident and its engine room bilges were found flooded time and again during Flag State and Port State Inspections in the past.
- The managers of the ships paid little attention to the technical problems highlighted by ships engineers.
- Stern tube header tank was noticed to be empty several times. The stern tube seals and bearing were allowed to operate with little or no oil in the system for the 6 months.

RECOMMENDATIONS:

- The managers of the ship must pay immediate attention to the problems of the ship highlighted by the ships engineers and they must ensure that the deficiencies / problems highlighted have been satisfactorily dealt with and verified. They should make sure that the record is also maintained in shore office.
- Superintendent inspection must be include verification of maintenance of stern tube, bilge alarm and operation systems.
- Superintendents mandatory inspection checklist / form should be amended to include some details of critical system and equipment maintenance including stern tube sealing and lubricating systems.
- ISM procedure manual should be suitably modified to include instructions on care of the stern tube system laying particular emphasis on maintaining header tank levels in oil cooled system and emergency preparedness.

The Directorate exercising its responsibility to implement the provisions of Merchant Shipping Act, 1958 and rules made there under relating to Safety of Ships directs the ship owners, ship managers to provide necessary guidelines to their Masters/ engineers in documented form impressing upon them the significance of adhering to safe practices.

Sd/-
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