

Flooding of the bow thruster room

The Club has experienced a number of incidents where the bow thruster room is flooded and therefore making the bow thruster and emergency fire pump inoperable. In a majority of cases flooding has been caused by either corroded pipes or a failure in the suction strainer.

Consequences

When this type of incident occurs, the consequences include:

- ▶ Electrical motor for bow thruster submerged/damaged
- ▶ Electrical motor for emergency fire pump submerged/damaged
- ▶ Hydraulic unit(s) submerged/damaged
- ▶ Bow thruster out of operation for a long time
- ▶ Possible damage to environment due to escape of pollutants

How to avoid a casualty

- ▶ Emergency fire pump suction filter cover clamp

It is our opinion that this type of strainer with a single clamp holding the cover in place is, despite being class approved, a substandard design (fig 1). The only way to avoid these unnecessary and expensive incidents is to replace the existing strainer with a strainer where the cover is bolted to the housing (fig 2).



Fig 1 Clamp design



Fig 2 Bolted design

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- ▶ Fit a high level alarm in the bow thruster room (if not fitted) and test the same on a weekly basis.
- ▶ It is recommended to connect the high level alarm to the engine control room as well as to the bridge.
- ▶ Display warning notice "This alarm must not be bypassed or ignored at any time. Inform the Master and investigate immediately if this alarm is activated".
- ▶ Carry out non-destructive testing of all seawater piping systems in the bow thruster room at regular intervals.
- ▶ A remote closing system can be fitted to the shipside valve and thus enable the water flow to be stopped even if the bow thruster room is flooded.
- ▶ Maintenance procedures for all equipment, including piping, to be included in the Planned Maintenance System (PMS).