

South African Maritime Safety Authority



Marine Notice No. 27 of 2007

Loss of fishing vessels through flooding

TO SKIPPERS, OWNERS, MANAGERS AND OPERATORS OF FISHING VESSELS AND PRINCIPAL OFFICERS

Marine Notice No. 6 of 1990 is cancelled

Summary

This marine notice brings to the attention of the industry the necessity to be vigilant to the dangers of flooding in spaces left unattended, to test bilge systems and alarms regularly, not to make openings in watertight bulkheads or make changes to bilge systems without the approval of the Authority.

1. Enquiries into the loss of fishing vessels due to flooding have shown that:
 - 1.1 the flooding was discovered too late for the cause to be located or any remedial action to be taken;
 - 1.2 not even the basic action was taken to prevent further flooding;
 - 1.3 bilge suction non-return valves had become jammed open or had been removed. Furthermore bilge valve handwheels had become misplaced;
 - 1.4 there had been unauthorised alterations to the bilge systems such as:
 - 1.4.1 additional piping fitted without non-return valves or isolating valves;
 - 1.4.2 fitting of unauthorised plastic "swimming pool" pumps that are unable to withstand any shock loads or internal /external impacts. Furthermore, plastic piping that cannot withstand suction pressures and is not oil or fire resistant is being used as a "quick fix" solution;
 - 1.5 holes to facilitate drainage of external compartments had been cut in watertight bulkheads;
 - 1.6 when the bilge system was required in an emergency it soon became choked; and
 - 1.7 bilge high level alarms were not fitted or failed to give the intended warning.
2. It is a well known fact that engine rooms are periodically unmanned when the catching of fish is in progress.
3. To prevent the danger to life and the loss of fishing vessels through flooding, close attention should be given to the following:
 - 3.1 **During Construction**
 - (a) ensure that belt drives and/or clutch arrangements of pumps are accessible for ease of maintenance;
 - (b) ensure that pumps and piping systems are of the approved type;
 - (c) install bilge level alarms;

- (d) ensure that the visual and audible warnings for the bilge level alarm are so positioned as to attract the attention of the crew;
- (e) position the bilge level alarm sufficiently low so that the crew have as much time as possible to take action in an emergency should flooding occur;
- (f) position the bilge strainers (mud boxes) in the engine room so that they can be easily cleaned;
- (g) fit a strainer (mud box) in the suction from the fish hold. The mud box should be positioned in the engine room and fitted with an isolating valve to permit cleaning when the fish hold is flooded;
- (h) fit grids over the fish hold slush well or some other coarse strainer of generous proportions around the fish hold bilge suction;
- (i) position the valves or cocks for operating the bilge system so that they are readily accessible and are of a type and so marked that they can be easily operated in an emergency;
- (j) keep bilge suction pipes as straight and direct as possible; and
- (k) position seavalves (and other valves that control the in let and out let of water through the hull) so that they can be closed in the event of flooding or fit extensions to the valves so that the controls are as high as possible above the floorplates and, if possible, at least 0.75 metres above the bilge level alarm.

DO NOT - fit flexible sections of piping in cooling water or other systems unless necessary to withstand movement or vibration. If necessary, flexible sections should be of impact resistant and fire retardant reinforced neoprene rubber secured by stainless steelclips.

3.2 **During Operation**

- (a) keep the bilge pump, bilge ejectors and bilge system in a well maintained condition;
- (b) regularly (preferably several times a day) check any spaces not fitted with bilge level alarms for the ingress of water;
- (c) regularly (preferably daily) test bilge level alarms by moving the float by hand to check that the visual and audible alarms actually work;
- (d) regularly (at least weekly) clean all the bilges trainers (mud boxes) in the engine room;
- (e) clean and replace the grids for the fish hold slush well or coarse strainer for the fish hold suction at every opportunity and whenever the fish hold is empty;
- (f) keep the engine room bilges, fish hold and the forepart free of rubbish or anything else that could choke the bilge system;
- (g) regularly (at least monthly) ensure that all valves in the bilge system and all sea valves (and other valves that control the inlet and outlet of water through the hull) are free to move, so that they can be operated or closed in an emergency;
- (h) regularly (at least monthly) test any bilge pumps not in daily use, including the hand (or whale) pumps; and
- (i) check that all non-return valves are clear of debris and are in good condition each time the vessel is slipped, dry-docked or otherwise out of the water.

DO NOT - remove any non-return valves - these are fitted to prevent back- flooding; and

DO NOT - fit non-approved equipment when a breakdown occurs. Furthermore, any alterations to bilge systems must be - approved by SAMSA.

3.3 Use of the Bilge System

- (a) ensure that, all crew members know the bilge system so that they can use it in an emergency;
- (b) close the sea suction on the bilge pump after the pump is primed and operating;
- (c) keep a watch when pumping bilges and stop the pump or ejector system as soon as the bilges have been emptied;
- (d) keep all the valves in the bilge system closed when it is not in use; and
- (e) keep all handwheels secured to the relevant valve spindles.

3.4 In an Emergency

- (a) try using the bilge pump or ejector and hand pumps when provided; and
- (b) close all sea valves (and other valves controlling the inlet and outlet of water through the hull) when the cause of flooding is not known or cannot be controlled.

4 Notes

- 4.1 The above lessons to be learnt from the loss of fishing vessels due to flooding apply to both vessels of above and below 25 GT.
- 4.2 Statutory requirements for bilge pumping and bilge pump applications for fishing vessels of greater than 25 GT are detailed in the Construction Regulations 1968 and Amendments.
- 4.3 Statutory requirements for bilge systems and alarms for fishing vessels of less than 25GT are detailed in Merchant Shipping (National Small Vessel Safety) Regulations, 2007

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