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Casualty Circular No.01 of 2012

File No: 11-NT (49) /2011- Vol-II

Date: 12/07/2012

Subject: Sinking of a Bulk carrier about 20 nautical miles off the Mumbai coast.

1. Executive Summary:

A 1984 built bulk carrying cargo of approx. 60000 MT of coal in bulk sank on 04th August, 2011 in position about 20 nautical miles off the Mumbai coast. At the time of the accident, vessel had about 290 MT of Heavy oil and 50 mts of diesel oil.

- 1.2 The vessel sank due to structural failure causing ingress of water into the hold no. 1, 2 and 3 respectively. The vessel had multinational crew of 30 persons. All the crew members were rescued prior to sinking of the vessel. Subsequent to sinking bunker oil escaped from the vessel and reached the Shores of Mumbai coast line.

2. What happened?

- 2.1 The bulk carrier was enroute from Indonesia to Port of Dahej (India). The vessel had called at Singapore. Ingress of water in cargo hold no.1 was observed since departure from Singapore. Subsequently water ingress into hold no. 2 and 3 was also noticed. On board pumping out arrangements could not cope with the ingress of water. Added weight due to progressive flooding resulted in reduction of free board in the forward part considerably and eventually resulted in sinking of the vessel.

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3. How it happened?

- 3.1 On 14th June 2011, vessel had sailed from Lubukulam, Indonesia, fully laden, with mean draft of 12.95 mtrs (summer marks) and trim of 70cms by head and bound for Dahej (India). During the voyage, vessel called at Singapore on 21st June, 2011 for bunkering and departed on 24th June 2011. Vessel's departure draft was F/ 14.22 mtrs and A/ 12.55 mtrs. On departure Singapore, no. 1 DB (P& S) and no. 2DB (P& S) ballast tanks were found to be full. During the voyage, water from no. 1 DB (P& S) was pumped out but same kept refilling.
- 3.2 On 29th June, 2011, on entering Bay of Bengal, Ships crew from the booby hatch of no. 1 hold, noticed water level upto 12/13th rung of the aft hatch ladder. The vessel experienced several technical snags in generators, engine stoppages and other auxiliary machinery stoppages; during the voyage.
- 3.3 On the 5th July, 2011, when the vessel was off Colombo, the Master reported about the ingress of water in cargo hold no. 1 to shore based managers and requested to arrange heavy duty submersible pumps at the earliest. However, the managers advised master to continue its voyage.
- 3.4 On the 18th July, 2011, Chief Engineer reported to Master about his inability to transfer Diesel oil from D.B. tank to service tank that had only 6MT remaining and which was not sufficient to complete the voyage to Dahej port. This was conveyed to the managers, who in turn advised to call Mumbai port. On 19th July, 2011, Vessel anchored at "B" (outer) anchorage off Mumbai Port.
- 3.5 From 19th July, 2011 to 28th July, 2011 replenishment of bunker could not be carried out due to hostile weather conditions. On 29th July, 2011, a supply boat managed to supply bunkers, fresh water, provisions and submersible pumps to the vessel. It was found that pumps supplied were of inadequate capacity and could not serve any purpose to cope up with the ingress of water. After receiving bunkers, the vessel heaved anchor for proceeding on its voyage to Dahej port, however, vessel could not be moved due to generator problems. The vessel was re-anchored and the managers were informed who advised to wait at anchor till the generator was repaired.
- 3.6 On 1st August, 2011 vessel's generators were repaired, however the voyage was not resumed because of considerable increase of forward draft, due to water ingress in hold no. 1, 2 and 3 which had resulted in substantial reduction of forward freeboard. At this stage, bulwark of forecastle was below the water line and seas were shipping on forward deck.
- 3.7 On 03rd August, 2011, due to increase in forward trim, ingress of water was noticed in forward cofferdam and fuel oil tanks. This was reported to managers and request for urgent need of heavy duty submersible pumps was re-iterated

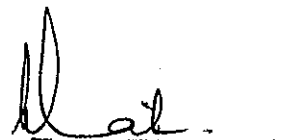
3.8 By 4th August, 2011, forecastle deck was completely submerged into water and at 0700 hours (LT), the master called VTS Mumbai port for assistances. At around 0930 hours (LT), progressive flooding on the vessel started and crew were evacuated by Indian Navy by helicopter. Subsequently, the vessel sank in same anchored position with 60054 MT of coal 290 MT of fuel oil and 50 MT of diesel oil.

4. Why it happened?

- 4.1 The most proximate cause of the incident is attributed to structural failure. This may be inherent or may have developed with age or due to lack of proper maintenance. The structural failure may have also been caused by severe weather sea conditions due to prevailing SW monsoon that the vessel experienced during the voyage. Failure of main and auxiliary engines and other machineries substantially contributed to loss of the vessel.
- 4.2 The vessel had anchored off Mumbai Port on 19/07/12, however, weather the Master nor the manager or the ships agents informed the Coastal authorities about the difficulties being encountered by an unseaworthy vessel. Timely information to seek resistances from coastal authorities could have saved the sinking of the vessel.

5. Lessons learnt:

- 5.1 All tanks, bilges and cofferdams sounding should be monitored regularly and in case of any unexpected change, matter should be investigated thoroughly and risk assessment carried out.
- 5.2 Proper monitoring of ballasting and de-ballasting operations should be carried out.
- 5.3 Vessel's stability should be verified for all stapes of the voyages and 'head trim' during the voyage should be avoided.
- 5.4 Master should not hesitate to exercise his overriding authority for safety and environment pollution and seek assistances from Maritime Assistances Services (MAS) of the coastal state.
- 5.5 Required maintainece of ship machinery should be routinely undertaken to ensure proper functioning during the voyage.
- 5.6 Ship's crew must ensure that all openings (air pipes, soundings piper etc) of oil tanks are effectively sealed prior to abandoning the vessel.



(Capt. Harish Khatri)

Dy. Director General of Shipping (Tech.)