Casualty Circular No. 01 of 2011

NO: 11-NT(85)/2010

Dated: 15.03.2011

Subject: Collision between two container vessels in Hoogly river...

1. Executive Summary:

Two container vessels, one inbound (A) and other outbound (B) collided in Hoogly river. Both the vessels were under the control of local pilots. The bow of vessel 'A'made contact with the midship section of the starboard side of vessel 'B'at almost 90 deg angle. Both vessels sustained damages. Vessel 'A'sustained damages to F'pk tank, bulbous bow and breach of collision bulkhead resulting in flooding of of F'pk tank and bow thruster compartment. Vessel 'B'sustained damages in way of No. 2 and No.3 holds and flooding of these holds and was subsequently beached at a nearby shoal, away from the navigation channel. There was no loss of life. Oil sheen was observed soon after the collision.

2. What happened?

2.1 Vessel 'A'had following current of 2 -2.5 Knots and was doing about 14 Knots speed. Her maximum draft was 6.6 Mts. Vessel 'B'was doing a speed of about 12 Knots, against the current and her maximum draft was about 6.35

Mts. Pilot on board vessel 'A'was aware of outbound vessel 'B'and pilot of vessel 'B'had verbally confirmed that his vessel will clear the Eastern gut (the location of the collision) before vessel 'A'arrives. Vessel 'A'had the right of way and vessel B was the give away vessel. Meeting of two vessels at the point of collision is not permitted by the ports rules. However, both vessels arrived together at the Eastern gut area and inspite of avoiding action being taken by both vessels, collision occurred.

3. How it happened ?

3.1 When the vessel 'A'was rounding off the 'waterloo buoy', its pilot made first visual contact with vessel 'B'which was at 'UWN buoy'. At 'UWN buoy'pilot of vessel 'B'realized that he is too slow to pass 'Eastern gut'area before vessel 'A'and therefore informed pilot of vessel 'A'that he is forced to meet him at 'LWN buoy'. Both the pilots agreed to this and decided to pass 'port to port'. After rounding off the 'waterloo buoy', vessel 'A'was steering approximately North Easterly course and was following track No. 3 at a speed of 11.5 Knots; whereas vessel 'B'was on approximately 230 degree course, on track 2, at about 12 Knots speed.

3.2. When both the vessels were about 2-3 cables from each other, passing port to port, the pilot of vessel 'B'ordered alteration of course to 220 degree. Helpsman turned the wheel to 'port 3 degrees'and when the vessel 'B'started turning to port, he put the wheel to mid-ship. As the turning rate of vessel 'B'started to increase, helmsman turned wheel to starboard to control the swing. Immediately thereafter, pilot also realized that the vessel was turning to port at faster rate and he ordered "hard to starboard" but the vessel 'B'continued her swing to port. Pilot of vessel 'B'then asked the pilot of vessel 'A', on VHF, to

go "hard to port". Pilot of vessel 'A'ordered "hard to port and also full astern on engines. However, by this time, vessel 'B'was almost perpendicular to vessel 'A'and collision occurred. Vessel 'A'collided with vessel 'B'at its starboard mid-section at almost perpendicular direction causing damages to both the vessels.

4. Why it happened ?

On examining the chart of Eastern Gut Area, it is noticed that track no 2 runs parallel to the contour of 2 m sounding on stbd side for a outbound vessel. Calculated under keel clearance of Vessel 'B', after correction, was 0.78m and her maximum draft was 6.35m. When Pilot of vessel 'B'ordered change of course to 220 deg, although Helmsman gave very small helm, Vessel 'B'started swinging to port immediately at higher rate of turn due to presence of shallow water bank at a very close proximity, causing Vessel 'B'to sheer because of the effect of Bank Cushion on the bow and suction at the stern. Since effective available under keel clearance was very small compared to draft of vessel, vessel 'B'become directionally unstable and port swing could not be checked even though greater counter helm was applied.

5. Lessons learnt

5.1 Navigation in Narrow channel, where ship meets at close quarter, shall be planned in orderly manner and a realistic UKC must be calculated. Master and pilot must consider the effects of shallow water on steering ability of a ship, effect of Bow cushion and bank suction, which occurs in narrow channels near the proximities of banks. Reduction of speed will reduce this effect considerably. Pilots and Master mariner may be specially trained in this respect.

5.2 A vessel's safety should never depend on the decisions of one person. All decisions and orders should be checked by other members of the team, and the effectiveness of each action monitored. Junior members of the team should be encouraged to question decisions if they think the outcome might endanger the vessel. Effective bridge organization promotes good communication and teamwork. Effective bridge resource and team management should eliminate the risk that an error on the part of one person could result in a dangerous situation.

5.3 Presence of pilot on board does not guarantee full knowledge of the navigation area concerned. Pilot may have better local navigational knowledge but The Master may be equally or even better skilled in handling his vessel. Presence of pilot on the bridge does not relieve Master or the officer in charge of the watch from the duties and obligation for the safety of the ship.

5.4 OOW must make use of all available means, which include radar, to detect other vessels courses and speed and the agreements made between two vessels should be monitored closely and any deviation should be confirmed by both parties.

Sd/-

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