LESSONS LEARNT FROM AN STS NEAR-MISS

The rolling effect and excessive loading of mooring and fender pennant lines

Ship-to-ship transfers (STS) are complex operations that revolve around the relationship between the Masters on the two participating vessels and the mooring master, otherwise known as the person in overall advisory control (POAC).

A near miss involving an STS operation off Southwold was recently reported. Weather conditions were moderate to rough. The operation was a reverse lightering between an Aframax and a Suezmax. The Aframax was the manoeuvring and discharging vessel also. During the operation it was noticed that the closed chocks of the Aframax were not greased, which resulted in the parting of two mooring tails of the Suezmax plus a fender pennant line from the Aframax.

Weather conditions and swell resulted in increased rolling on the Aframax when its displacement was reduced during the transfer. Due to the rolling and the difference of freeboard, the forces on mooring lines were increased, increasing the friction on the chocks. Mooring lines parted in way of the chocks.

The POAC altered vessel direction towards the swell, in order to reduce vessel rolling, but did not promptly advise the Masters to avoid the breaking of lines. The fender pennant lines should have been adjusted, relevant to the freeboard increase of the discharging (and manoeuvring) vessel.

BELOW: Offshore STS operations pose increased risks

Proper preparation

During the planning phase and prior commencement of the STS operation, both Masters should ensure that the utilised chocks will be sufficiently greased. The use of protective sleeves will help maintain the sound condition of mooring lines.

During the agreement of the joint plan, Masters and the POAC should ensure that there will be confirmation of proper preparation of chocks.

Chocks with scratches and existing friction marks should be ground out and properly greased, or they could damage mooring lines.

During change of vessel freeboard, mooring lines as well as fender pennant lines should be accordingly adjusted to conform to corrected heights. The POAC should actively monitor such changes and advise both Masters to take action promptly.

The risk assessment conducted prior the STS operation should account for such issues and introduce risk-mitigating actions to the Master. Generic risk assessments usually do not include the rolling and fender assessment.

OCIMF Guidelines 2

The latest edition of the OCIMF guidelines makes explicit reference (in Annex K2) to causal factors contributing to increased risk. Large rolling angles, fender breakdown or inadequate fendering are among other causal factors that should be accounted for during an STS operation.

Both "proper incident management" and "consolidation of STS knowledge" within an organisation are important factors that may assist in dissemination of STS experience gained by the Masters and reduce the incurred risks in STS operations.

STS operations within port

Offshore STS operations are subject to increased risk due to weather conditions. Sometimes such operations may result in excessive delays and unforeseen damages to both vessels.

A reliable forecast, experienced POAC, and well-trained crews are required to ensure safety and handling of abnormal situations.

In-port STS operations, or operations in sheltered water, are safer due to the absence of such risks. *TST*

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