

Beware the rolling effect

A near miss was recently reported on DYNAMARINE's OSIS online STS.net service regarding a ship-to-ship (STS) cargo transfer operation off Southwold on the UK's East Coast.

At the time, the weather conditions were moderate to rough. The STS transfer was a reverse lightering operation between an Aframax, the manoeuvring and discharging vessel and a Suezmax.

During the operation it was noticed that the Aframaxes closed chocks were not greased, which resulted in the parting of the Suezmaxes two mooring tails, plus a fender pennant line from the Aframax.

The weather conditions and swell resulted in the Aframax experiencing increased rolling when her displacement was reduced during the transfer. Because of the rolling and the freeboard difference, the forces on the mooring lines were increased, thus increasing the friction on the chocks. As a result, the mooring lines parted in way of the chocks.

In order to reduce the tanker rolling, the Person in Overall Advisory Control (POAC), changed course towards the swell, but did not promptly advise the Masters to warn of the possibility of the lines breaking. The fender pennant lines should have been adjusted, relevant to the discharging and manoeuvring vessel's freeboard increase.

Lessons learned

During the planning phase and prior to the commencement of the STS operation, both Masters should have ensured that the utilised chocks would be sufficiently greased. The use of protective sleeves will contribute to maintaining the mooring lines' sound condition.

Both Masters and the POAC should have also ensured that confirmation of the proper chocks preparation was agreed in the joint plan.

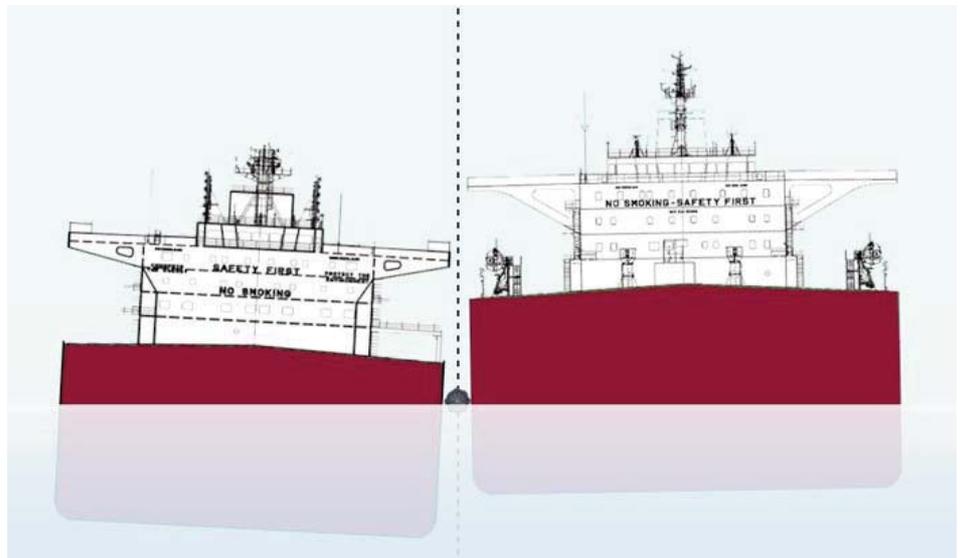
Chocks showing scratches and friction marks should be ground and properly greased, as they could damage the mooring lines.

During the vessel's change of freeboard, the mooring lines, as well as the fender pennant lines, should have been adjusted accordingly to conform to the changed deck heights. The

POAC should have actively monitored the changes and advised both Masters to take action promptly.

The risk assessment conducted prior the

STS operation should have accounted for such issues and flagged up risk mitigating actions to the Master. Generic risk assessments usually do not include rolling and fender assessment.

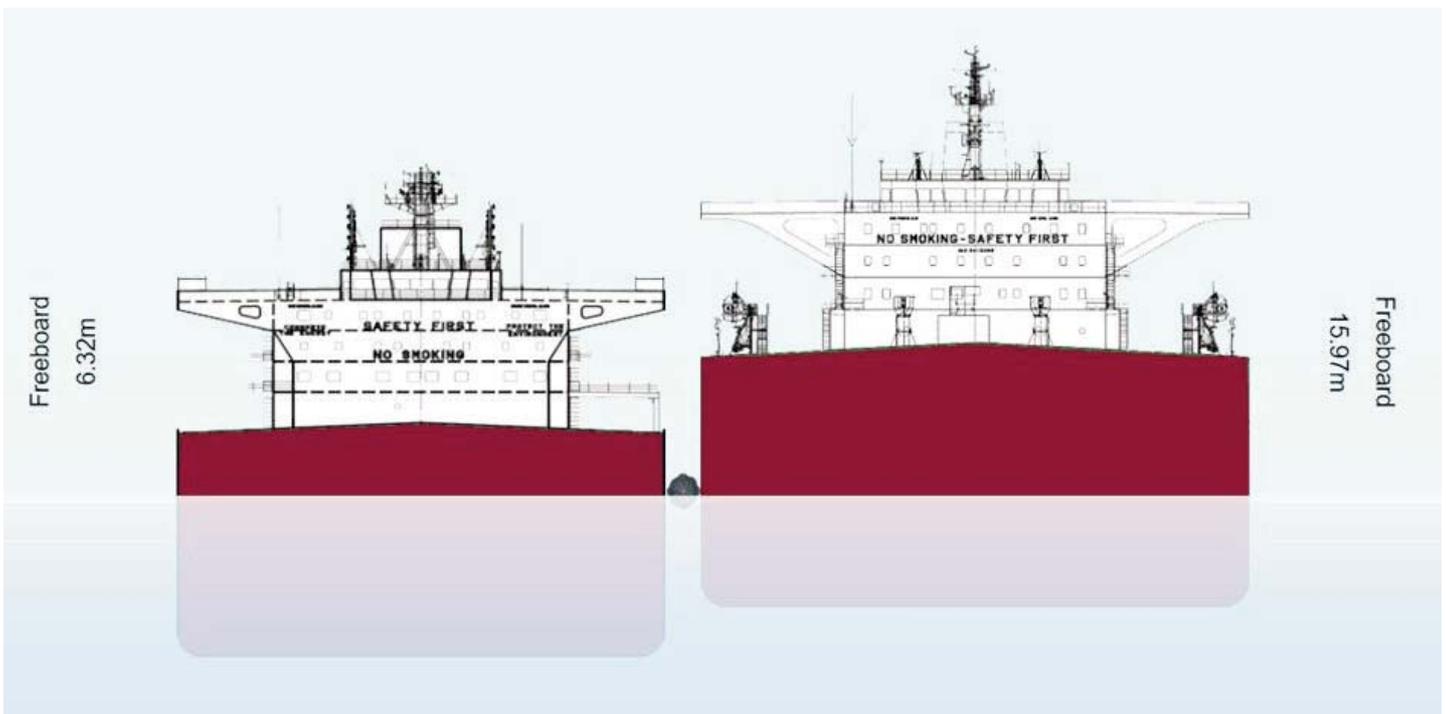


The Aframax left and the Suezmax right undergoing reverse lightering. Source: DYNAMARINE.



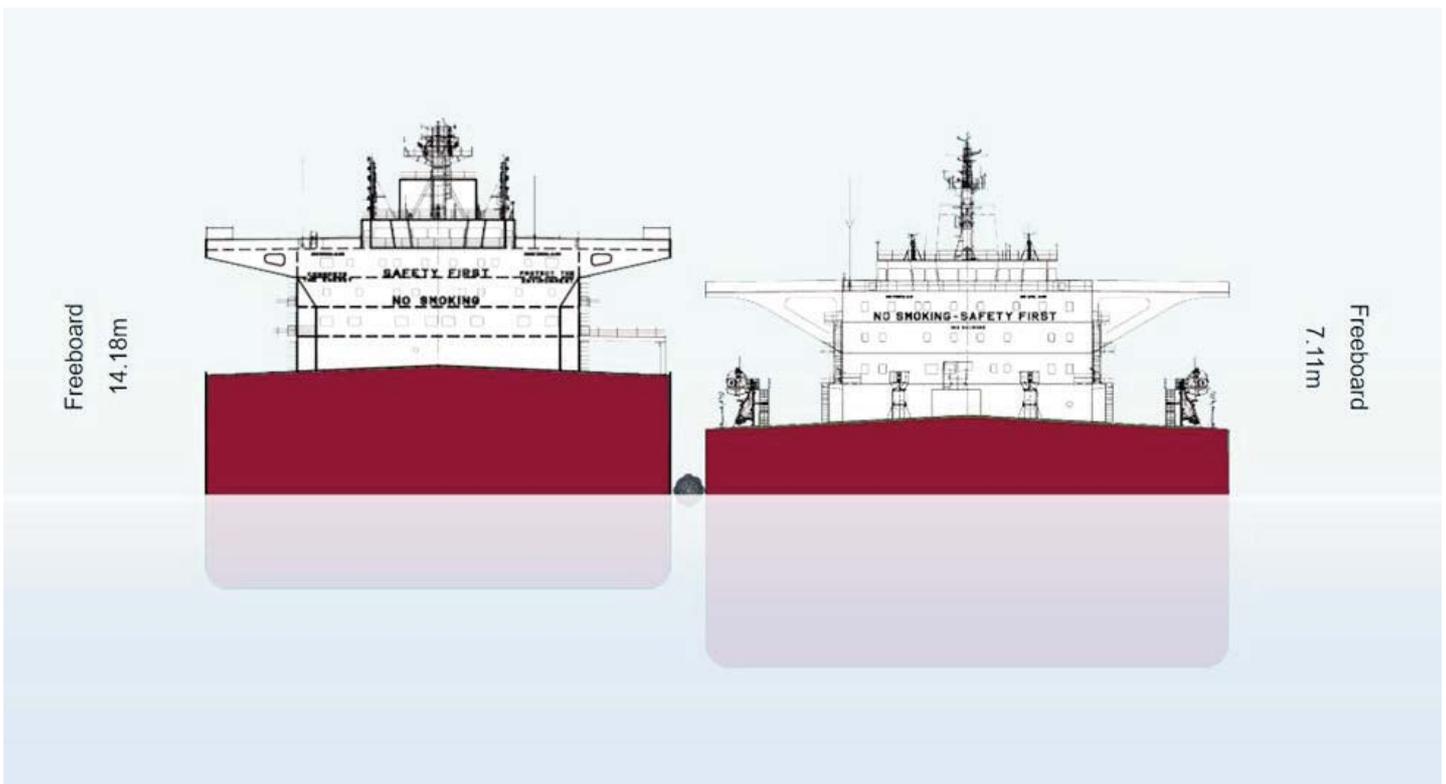
Closed chock and wire not properly greased.

Source: DYNAMARINE.



Freeboards before the STS operation.

Source:DYNAMARINE



Freeboards after the STS operation.

Source:DYNAMARINE.

OCIMF guidelines latest edition makes explicit reference (ANNEX K2, page 144) to causal factors contributing to increased risk. Large rolling angles, fender breakdown or inadequate fendering are among the causal factors, which should be accounted during an STS operation, DYNAMARINE said.

It is considered that both 'proper incident management' and 'consolidation of STS knowledge' within an organisation are also

important factors that may assist in dissemination of STS experience gained by the Masters and reduce the incurred risks in STS operations. This is one of the scopes of the onlineSTS.net service, DYNAMARINE explained.

Vulnerable

Offshore STS operations are vulnerable due to increased risks caused by weather conditions.

Sometimes such operations may result in excessive delays and unforeseen damage to both vessels. A reliable forecast and experienced POAC, as well as well-trained crews, are required in order to ensure safety and handling of abnormal situations.

In port STS operations, or operations at sheltered water are more safe, due to absence of such risks, DYNAMARINE concluded.