



## 香港商船資訊

## HONG KONG MERCHANT SHIPPING INFORMATION NOTE

**Oil spill from cracked shell plate**

*To : Shipowners, Ship Managers, Ship Operators, Masters and Officers*

**Summary**

Oil seeped through cracks on the shell plate of a heavy fuel oil tank of a Hong Kong registered container ship during a bunkering operation at Khor Fakkan, United Arab Emirates. About 200 litres of heavy oil entered into the harbour waters. The cracks were probably caused by the high impact forces of tugs during berthing at one or more of her previous ports of calls, but it was not discovered before the oil spill incident. This Information Notes draws the attention of shipowners, ship managers, ship operators, masters and officers to the lessons learnt from this incident.

**The Incident**

1. A Hong Kong registered container ship called several ports in South Africa and then sailed to Khor Fakkan, United Arab Emirates. After cargo operation, the vessel took bunker fuel on board and completed without any abnormality. However, when the chief officer checked the ship's drafts before departure, he found that oil was seeping through the shell plate of the No. 1 Starboard Heavy Fuel Oil Tank (No. 1S HFOT), about one meter below the waterline. About 200 litres of heavy oil had entered into the harbour waters.
2. An investigation revealed that there were cracks on the shell plate of No. 1S HFOT which were probably caused by the high impact forces of tugs during berthing at one or more of her previous ports of calls in South Africa. The cracked location was not one of the tug pushing points marked on the ship.
3. Furthermore, the crew did not follow the bunkering operation procedures by taking soundings of No. 1S HFOT before the bunkering operation based on the reason that stripping of this tank had been carried out before arrival of Khor Fakkan and it should be empty. He missed the chance of discovering the cracks on the shell plate by detecting sea water inside the tank. In addition, there was insufficient monitoring of the sea surface near the ship during and after the bunkering operation.

4. Moreover, no regular shipside inspections of the ship in port had been carried out. Otherwise the cracks or indentation of the shell plates should have been observed.

### **Lessons Learnt**

5. To avoid damage to the ship's hull by tugs during berthing, the master should inform the pilot the location and strength of the tug pushing points. If no such point is indicated on the hull, but the ship has a reinforced belt all around, this fact should be conveyed to the tug master.

6. All officers and crew should follow the ship's bunkering operation procedures strictly, especially when taking soundings of fuel oil tanks. All fuel oil tanks, no matter whether they are empty or not, should be sounded. This increases the chance of finding out any abnormality of these tanks, such as cracks, due to corrosion or ship's vibration, developed on the shell plate of the tanks. Furthermore, the sea surface near the ship should be monitored closely during and after the bunkering operation.

7. Officers should pay attention to the shipside hull plates after berthing and before departure in particular in way of fuel oil tanks.

8. The attention of shipowners, ship managers, ship operators, masters and officers is drawn to the lessons learnt above.

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