

The fatal accident on board Hong Kong registered bulk carrier “*Tiger Pioneer*” at North Pacific Ocean (49°15.7’N, 159°40.1’W) on 24 June 2016

1. The incident

- 1.1 On 24 June 2016, the Hong Kong registered bulk carrier *Tiger Pioneer* (the vessel), under ballast condition, was en route in North Pacific Ocean to Kalama, USA from Busan, Republic of Korea. The cargo hold cleaning operations were in progress for loading grain in the next port.
- 1.2 In order to rinse the cargo hold No.3, one able-bodied seaman (the AB) entered into the cargo hold by climbing down its vertical ladder through a manhole and reached on the elevated passageway of the permanent means of access (PMA) platform. Shortly after, while the AB was walking along the passageway, one grating failed to support him and fell from the passageway frame. The AB fell down to the tank top together with the grating. The AB was injured seriously to his death.
- 1.3 The investigation into the accident revealed the main contributory factors as follows:
 - the AB failed to take extra precaution to avoid falling and did not follow the requirements of risk assessment to wear safety belt while he was walking on the elevated passageway in cargo hold; and
 - the dislocation of the grating plate of the passageway was not discovered by the ship’s crew members. Therefore the dislocation of the grating plate was not rectified by relocating and securing before using it, unbalanced weight force applied on it caused the grating plate moving and falling from the support frame.
- 1.4 The investigation also revealed the following safety factors:
 - the risk of the dislocation of the grating was not identified during the risk assessment for cargo hold cleaning operation; and
 - the company did not establish specific inspection procedures to ensure all means of access arrangement remain in serviceable condition when it is to be used.

2. Lessons learnt

- 2.1 The similar bulk carrier’s management company shall consider to establish a regular inspection procedure to ensure that all means of access arrangements remain in

serviceable condition, especially after loading with ballast water in cargo hold. This procedure should be included in the ship's SMS manual.

- 2.2 Extra precaution shall be taken to avoid falling when climbing or walking on cargo hold means of access arrangements, and use safety belt or fall arrestor devices as far as practicable.
- 2.3 An inspection of means of access should be carried out by the crew member and/or an authorized person to ensure it is serviceable before using it.
- 2.4 Due to loosening or missing of the securing nuts and bolts, the grating plates of cargo hold PMA platform passageways may be dislocated and form a risk of fall. The cargo handling operation and ballasting of the cargo hold may cause the damage to the PMA also. The above hazardous situation shall be included in the risk assessment and be briefed to all crew members.