

Crew fatality during mooring operation on board the sand barge "Jian Hang 029" on 2.7.2005

1. The Incident

- 1.1 At about 0600 on 2 July 2005, while the sand barge "Jian Hang 029" (*the Vessel*) was berthing at the Sand Depot at Kwun Tong, a fairlead roller at the forward of *the Vessel* detached from position and hit the head of a Seaman.
- 1.2 The Seaman suffered serious head injury. He was sent him to hospital for rescue but was certified dead later.

2. Findings

- 2.1 At time of the incident the fairlead roller was under the stress of a mooring wire. The roller was newly installed to *the Vessel* and fabricated earlier in an engineering workshop in Mainland China. This fairlead roller was sent to the Vessel from Mainland for replacement of a previously damaged fairlead. The new fairlead was welded into position by the ship's crew about a month ago prior to the accident.
- 2.2 The fairlead assembly consisted of a bedplate, a roller pin and roller casting. A roller pin was fitted onto the bedplate and reinforced by four stiffeners by welding. The assembly was fixed to the deck by welding at the base of the bedplate. Two bearings were fitted for reducing the friction of the rolling motion of the roller.



Fig. 1: A similar fairlead roller assembly

2.3 The investigation revealed that the design, fabrication and the installation of the new fairlead roller assembly was not in accordance with proper procedures. The workmanship of the roller pin was found to be poor and the diameter of the pin was undersize. In the accident, the roller pin sheared off at the undersized section near the lower end of the roller pin.

3. **Lessons**

3.1 Roller pin of the fairlead is a critical component subject to high load and it should not be modified. The fairlead roller assembly should be designed, fabricated and installed by competent person and inspected by the ship registration administration or the recognized classification societies.