UK P&I CLUB

Ship Type: All   Trade Area: Australia

Bulletin 424 - 07/05 - Orders under Pilotage

The Club would like to highlight to Members a case where a ship ran aground on a mud/sand patch just south of Bradleys Head light in the middle of Sydney Harbour. When the ship came to an intended course alteration position in the harbour east of Bradleys Head, the pilot initiated the turn to starboard to round the headland. He firstly ordered 5° starboard rudder and then, when the ship did not respond quickly enough, he increased the order to starboard 10°. The rate of swing increased markedly and so the pilot ordered port 20° to slow the swing. The seaman on the wheel confirmed the order as port 20° and instead applied starboard 20° wheel. Before the consequences of this error could be corrected, the ship ran aground on a mud/sand patch just south of the light on the southern end of the headland.

It is a common convention that, before ordering counter helm, a pilot would order the rudder be put amidships. This practice increases the salience of a potential change of rudder direction by directing the attention of the individual towards it. Therefore, without this cue, the possibility that a change of rudder direction was potentially imminent was reduced. This strategy is implemented as a means of reducing the risk of the type of error that occurred in this incident. It would be reasonable for a helmsman to anticipate such an order before applying the rudder in the opposite direction, especially given that the pilot had used this order before.

Grounding Position

At the time the helmsman made the misapplication of the pilot's order for 'port 20' the other members of the bridge team were not directly monitoring his actions. Both the pilot and the master were looking forward, watching the foremast move in relation to the land, to assess the vessel's rate of turn. The second mate was busy at the radar on the starboard side of the helm taking a range. While all three men quickly realised the helmsman's error and responded rapidly to correct it, the vessel's proximity to Bradleys Head, its handling characteristics and rate of turn were such that the grounding was possibly inevitable at this point.

It is the practice on most ships, and reflects good seamanship and Bridge Resource Management, for the OOW to cross-check the helmsman's execution of helm orders during a pilotage. Many pilots also perform this check and may also use hand signals in addition to verbal orders to provide the helmsman with a visual cue. The International Chamber of Shipping's Bridge Procedures Guide states under the heading '3.3.3.4 Monitoring the Pilotage': Verbal orders from the pilot also need to be checked to confirm that they have been correctly carried out. This will include monitoring both the rudder angle and rpm indicators when helm and engine orders are given. These practices serve as a defence against 'one-man errors' - the possible ambiguity of the pilot's order and the subsequent execution error made by the ship's helmsman - and reduce the likelihood and/or consequences of an incorrect helm setting, an error which is not uncommon.

Recommendations:

- Pilots and bridge teams should ensure the conventions governing helm orders are observed, particularly the use of 'midships' when changing rudder direction and also consider the use of hand signals to supplement verbal steering orders.

Source of information: Australian Transport Safety Bureau
http://www.atsb.gov.au