STATE PARTLY LIABLE BUT CLAIMS ALSO FOUND TO BE NEGLIGENT

M/V Rocknes: Laying the Blame

Although Norwegian authorities immediately investigated the disaster, responsibility for the accident remained undetermined, leading to the reopening of the case in February 2009. In the April edition of Hydro international we discussed this in 'The 2004 *Rocknes* Drama, Past and Present'. In May the court determined the verdict.

The Facts

As well as the death of 18 members of the crew, the incident also led to 450 tons of fuel oil being spilt along a 15-km stretch of the Norwegian coastline. The claimants argued that, had the shoal been properly reported, the pilot would have been aware of its presence and the accident avoided. The opinions presented here may allow the reader to arrive at some conclusions that may not agree completely with those determined by the court: many negative factors combined to create an accident waiting to happen.

Background

The owner of the M/V *Rocknes* knew that she was inherently unstable partially due to the 3,000 tons of new ironwork on her forward deck and the shape of her cargo holds (see Figure 1). Ballast tanks that had been retrofitted to counter this instability were slow to fill and difficult to maintain. Forward visibility was compromised, even though Lloyds Register of Shipping had approved the refitted alterations. Further, the ship was difficult to steer, perhaps because she lacked a keel and had a tendency to heel over substantially and slide sideways when any amount of rudder was applied. To compound these problems, she was incorrectly loaded and her cargo holds were not trimmed prior to setting to sea.

Although the pilot knew Vatlestraumen Narrows very well and was capable of navigating this passage without the aid of radar, bearing and distances or measured sight, the ship was out of mid-channel and too far to starboard (see Figure 2). As the state argued, the charts did not contain any information to indicate that, at the location of the grounding, depth was more than 10 metres.

Top Heavy

During the reconfiguration from bulk carrier to flexible fall pipe ship, steel structures were added to the deck forward of the bridge and over much of the seven cargo holds. It is reported that 3,000 tons of weight had been added. To compensate for the added weight, all of which was above the original centre of gravity, ballast tanks were added to each side of the ship. In addition, the six holds used for the storage of its cargo were altered in such a way that a conveyer-belt system could remove the cargo from each hold and deliver it to the flexible pipe arrangement that was situated over cargo hold number five. Each of the cargo holds was triangularly shaped with the apex of the triangle on the centreline of the ship, pointing downwards. This placed the majority of the cargo in the holds well above the hull waterline, decreasing the metacentric height (distance between the ship's metacentre and centre of gravity, referred to as GM) unless ballasting and fuel compensations were effected correctly.

Forward Visibility

Further to the stability problem was a concern that visibility forward from the bridge was not acceptable. In order to see forward at all, the navigation officer had to walk to the port or starboard side of the bridge. Although the ship had passed inspection regarding forward visibility, the fact remains that forward visibility from bridge midships was almost non-existent. Various navigation officers had expressed concern that visibility was only unobstructed from each side of the bridge.

Cargo Loading

Regarding the cargo on this ill-fated voyage, the loading conveyor at the Norwegian port of Eikefet was stationary and was of insufficient length to load the far side of the ship (the starboard side). In this case, the port side (against the dock) was loaded and the starboard side after settling was not. Because the shore conveyor was stationary, the ship had to be reefed forward and aft filling all six holds individually. The important facts here are: (1) the ship left the dock without having its cargo holds trimmed, and as a result less cargo was on the starboard side than the port side; and (2) because of the nature of the loose cargo, it had a tendency to shift or avalanche quickly.

Steering Problem

Even as the ship travelled from Eikefet, the captain and pilot (who had boarded the ship for the inside passage run) discussed the steering and stability characteristics, which they had noted to be poor. Difficulties were experienced when normal changes of course were made to the rudder angle. The ship would heel over and slide in the direction the ship had been travelling prior to the alteration of course. The captain expressed some concern that the ship's centre of gravity was offset and therefore its general stability was not good. He and others found that the only way to minimise this dilemma was to make many small alterations in order to set the ship on the desired course.

New Shoal

The shoal on which the M/V *Rocknes* grounded in January 2004 was discovered by the Norwegian Chart Authority in 1995, but had not been reported in Norwegian "Notices to Mariners". However, the pilot aboard the ship was traversing Vatlestraumen Narrows by line of sight and personal knowledge. No navigational aids (except those fixed aids ashore) were being used; indeed, it would be unreasonable to expect anything else under these circumstances. The pilot had taken ships such as this through Vatlestraumen Narrows many times, and knew the area well. The shoal on which the ship ran aground was a slight extension to an already-known shallow area that was affixed to the shore low water and correctly marked by a fixed aid ashore. The judge in the case has found that the Hydrographic Office did not notify the maritime community of this 10-m contour extension in an appropriate or timely manner and because the Government appeared not to have followed acceptable procedures in this regard found the Government partially responsible. In my opinion, they were not in any way accountable but Governments have a responsibility to appear to do what is right and they have been ordered to pay some minor costs.

Lack of knowledge of the extension of the 10-m contour was only of consequence because the ship was too far to the starboard side of the channel, due to three different factors.

1. The visibility from the bridge was poor and it was not possible to cover both the starboard and port sides of the ship, necessary to see whether the *Rocknes* was mid-channel as she should have been.

2. The *Rocknes* was attempting to remain well astern of a ship ahead. This affected the attention of the pilot and distracted him from other navigational duties, especially as he had to walk from one side of the bridge to the other to see this ship and see where the *Rocknes* was going.

3. The steering characteristics of the *Rocknes* were so temperamental that it was difficult to maintain or adjust to a chosen course.

The Grounding

As the ship was too far to the starboard side of the channel, she touched the edge of the 10-m contour line and punctured three areas of the hull on the starboard side. According to reports, the forward two were substantially breached and the third was partially breached. From photographs of the hull ruptures, none of the damage appears excessive to me. However, water in the two forward ruptured holds compromised an already unstable ship. The improperly loaded cargo was shifted to the starboard side in an avalanche fashion, capsizing the ship within four minutes (estimated by an observer) of the grounding.

Negligence Findings

In May 2009, the judge in the Norwegian court at the trial of the ship owners and their insurance agents against the Government of Norway and its Hydrographic Service found that the State was liable in not reporting the shoal, as I have already said. However, negligence on the part of the owners and the operators of the ship (the ship's captain and pilot, primarily) meant that

the claimants were held responsible for 96% of the cost of the resultant damage and ultimately the grounding itself. These claims were for the damage to the ship and the resultant repairs, the cost of the oil clean-up on the shoreline and the various claims made by the families of those who died in the disaster. Although the ship ran aground in the red sector of an extension to the natural shoaling close to the shore, the existence of which had not been properly promulgated to the maritime community, the existence or non-existence of the shoaling was not the primary factor in the grounding itself. Assessment of financial responsibility by the court acknowledges this fact.

Further Reading

Weber Smit, A., 2009: The 2004 *Rocknes* Drama. Past and Present. Hydro international, 13 (3), 30-31.