

Sewol sinking puts pressure on IMO

South Korea's worst maritime disaster has returned passenger shipping safety to close international scrutiny, writes **Moyoun Jin** in Seoul

> **The 16 April capsizing of the ferry *Sewol* in South Korea has raised questions about safety standards on passenger ships that echo far beyond the region. The arrests of the captain, Lee Joon-seok, and at least two other crew members are unlikely to be the last in relation to the event.**

IHS chief maritime analyst Richard Clayton said: "Coming so soon after [Italy's 2012] *Costa Concordia* tragedy, in which the captain was also made the first, last, and only man responsible for casualties, shipping should not be surprised if serious questions are asked by non-maritime opinion-formers about whether our industry is safe. In the eyes of our customers, shipping does not take safety seriously enough. The time has come for the IMO to take a much firmer grip on safety." (See Lookout, p7.)

It has been suggested that the accident

occurred as a result of a sharp turn made by an inexperienced crew member. A 26-year-old, identified only by her surname, Park, was steering the *Sewol* when it listed and capsized. She had little more than one year's experience as third mate and had spent less than five months on *Sewol*. It was also her first time steering the ferry through the Maenggol Channel, where the accident happened. The woman is one of the three crew arrested on suspicion of negligence, abandoning people in need, and violating maritime law.

The Maenggol Channel has one of the most rapid and

unpredictable currents in the Korean Peninsula due to tidal shifts. When the departure time was delayed, the steering rota for the ship's mates was changed.

IHS Maritime senior analyst Gary Li has extracted the general movement tracks for the



Sewol over the previous 20 days and said: "The vessel did not deviate from previous routes." Carrying 476 passengers and crew bound for Jeju Island, *Sewol* capsized and sank off South Korea's southern coast, near Jindo Island in South Jeolla Province, at 08.58 local time. As IHS Maritime Fairplay went to press, 108 bodies had been recovered, 194 people were still missing, and 174 rescues had been reported.

Of the passengers, 325 were students from Danwon High School, who were on a school trip to Jeju Island, South Korea's most popular tourist destination. School excursions to Jeju are common in South Korea.

Although by press time the government had made no announcement regarding the cause of the accident, the South Korean media made some suggestions of potential causes. *Sewol* had reportedly persisted with sailing despite poor visibility, leaving port at 21.00 on 15 April, although 10 other ferries scheduled for departure on the same day had cancelled because of thick fog. *Sewol* had planned to depart at 18.30, but set sail more than two hours later due to the weather conditions.

After the accident, it was revealed that Chonghaejin Marine, which operated *Sewol* on twice-weekly Incheon-Jeju trips, recorded a KRW785M (\$750,456) operating loss for 2013. According to South Korean media reports, Chonghaejin Marine may have persisted with the voyage to avoid losing a day's revenue.

Data from South Korea's Financial Supervisory Service shows that Chonghaejin's shareholders include two sons of the owner of Semo Marine, a shipping company that went bankrupt in 1997.

IHS Maritime's attempts to contact Chonghaejin Marine for comment were unsuccessful. Phone calls went unanswered and the company's website was shut after the accident.

The company only commented at a post-tragedy news conference, when CEO Kim Han-Sik apologised to the victims' families and said he had "committed a terrible sin". Kim and as many as 40 Chonghaejin executives and shareholders had been barred from leaving South Korea pending state investigations.



Should Chonghaejin be found responsible for poor management of the ship and lack of safety drills, the prosecution may widen the probe to include national bodies that authorised the ship's operation and safety certification, according to local reports.

Surviving passengers said no instructions on evacuation procedures were provided when they boarded. Some crew members also

claimed they were not given safety training. South Korea's Ministry of Oceans and Fisheries said *Sewol* did not veer off its course, adding that there were no rocks in the surrounding waters, which are 30-50m deep.

Modifications to the *Sewol* have also been mentioned as a possible factor in the accident.

South Korea's previous worst maritime disaster was the capsizing of the ferry *Seohae* off the southwestern coast of North Jeolla province on 10 October 1993, killing 292 people. Former prosecutor Kim Hee-soo, who led the inquiry into the *Seohae* disaster, told journalists: "There are similarities between the two accidents, including the fact that both ships were overloaded. *Seohae* was apparently thrown off balance after adding another 10 tonnes of cargo."

Commenting on the *Sewol*, the ferry industry's trade association Interferry said it had been working with the International Maritime Organization to improve ferry safety in developing countries, where many accidents occur, but it added that domestic routes were governed by national regulations.

Interferry concluded: "The international ferry industry has suffered serious accidents on rare occasions in the past. These have led to numerous important technical safety improvements. In addition to technical issues, Interferry strongly supports and advocates the [constant] enhancement of strict operational requirements for crews and their supporting land-based organisations."

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> Ro-pax casualties since 2003

Since 2003 there have been a total of 46 total losses to this type of vessel, with 16 of those incidents resulting in loss of life.

Ship name	Year built	Flag	Fatalities	Accident location	Ship name	Year built	Flag	Fatalities	Accident location
<i>Al Salam</i>	1970	Panama	988	Saudi Arabia	<i>Superferry 9</i>	1986	Philippines	11	Philippines
<i>Boccaccio 98</i>					<i>Sahabat</i>	1982	Indonesia	9	Indonesia
<i>Princess of the Stars</i>	1984	Philippines	631	Philippines	<i>Levina</i>	1981	Indonesia	4	Indonesia
<i>Senopati Nusantara</i>	1969	Indonesia	373	Indonesia	<i>Liao Lu Du 7</i>	1980	China	4	China
<i>Sewol</i>	1996	South Korea	302*	South Korea	<i>Queen of the North</i>	1969	Canada	2	Canada
<i>Superferry 14</i>	1981	Philippines	194	Philippines	<i>Al-Kahfain</i>	1967	Panama	1	Egypt
<i>St Thomas Aquinas</i>	1973	Philippines	137	Philippines	<i>Pella</i>	1983	Jordan	1	Jordan
<i>Laut Teduh 2</i>	1990	Indonesia	28	Indonesia	<i>Pride of Al Salam 95</i>	1972	Panama	1	Egypt
<i>Marina Nusantara</i>	1970	Indonesia	18	Indonesia					

* provisional

Credit: IHS Maritime

> Modification factors

According to IHS Maritime's Sea-web data, *Sewol* was built in 1994 in Japan's Hayashikane Dockyard and was named *Ferry Naminoue* while it was operated by Japan's A Ferry Co. Chonghaejin Marine bought the ferry and renamed it *Sewol* in 2012, and modified the vessel to accommodate more passengers and cargo. The modified

Sewol could carry 921 passengers, 181 more than its original load.

Some marine engineers have suggested that the addition of cabins on the third, fourth, and fifth floors raised the *Sewol*'s centre of gravity, making it more vulnerable to listing.