

## Lessons must be learned from ore carrier sinking

**T**he tragic loss of Polaris Shipping's *Stellar Daisy* is under investigation, and the structural viability of the whole VLOC fleet looks set to come under the spotlight, writes *Sandra Speares*.

The 1993-built, 266,000dwt VLOC foundered on 31 March with the loss of 22 members of her 24-man crew while on a voyage to China with a cargo of iron ore for commodities giant Vale. The vessel's flag state, the Marshall Islands, is tasked with the accident investigation.

The tragedy has brought the viability of the whole VLOC fleet into question, in particular those vessels that were originally VLCC conversions. The demands of the Chinese market for bulk commodities like iron ore in the years before the 2008 financial crash led owners to convert tankers to ore carriers to take advantage of the market boom.

Preliminary evidence from the surviving crew points to water ingress prior to the sinking, leading to a muster of the crew following possible structural failure. While not pre-judging the results of the inquiry, recovery of data may be a problem because of where the ship went down, making retrieval of the voyage data recorder difficult.

Considerable progress has been made in recent years to address the issues that led to so many bulk carrier casualties in the 1980s and 1990s. There is greater information sharing between key players in the industry and more attention paid to the importance of good maintenance and a robust inspection regime with the naming and shaming of shipowners who failed to ensure the safety of their crews and ships through poor maintenance and flag-hopping. However, critics continue to maintain that not enough has been done by the industry to improve bulk carrier safety.

Liquefaction has received increasing attention as a result of casualties like *Bulk Jupiter* in 2015 and initial comment suggested this might be the cause of the *Stellar Daisy* casualty. In the weeks since the accident the focus has turned to the dangers of converting ships designed for one trade to another, for example from VLCC to VLOC.

Tankers are longitudinally framed, as opposed to laterally in the case of bulk carriers. The conversion process necessitates substantial use of new steel to effect a transformation which involves cutting holes in the weather deck for hatches. What had been the tanker's centre tanks would be used to carry the cargo, with suitable reinforcement, while the ship's wing tanks would remain empty to provide buoyancy when the vessel was heavily loaded.

The transformation of *Stellar Daisy* from single hull tanker to bulk carrier carrying high density cargo will

thus come under intense scrutiny in the light of what has happened. Not only will the investigation have to consider the work done to convert the ship and the testing procedures followed, but also problems experienced with other converted vessels in the fleet and maintenance and inspection programmes.

Whether further changes to classification societies' rules should be considered in the light of the investigation's findings is another question likely to be on the agenda.

The stresses and strains undergone by the ship during her life as a tanker would have been compounded by a different range of stresses and strains during her life as a bulker. Since the accident, problems with other ships in the Polaris fleet of VLOCs have been reported and the company has been carrying out inspections. There is also a substantial fleet of VLOCs in operation worldwide which started life as tankers. Analysts Alphabulk have estimated the number of VLCCs converted to VLOCs at just under 25% of the total.

International Association of Classification Societies secretary general Robert Ashdown commented: "As yet, IACS does not have sufficient confirmed information to comment or in any way speculate on the cause of the vessel's tragic loss. The Korean Register, as the classification society concerned, is in close touch with the Marshall Islands, as the vessel's flag state, who are working with other substantially interested states. The Korean Register and IACS are anxious and ready to make any relevant contribution to the formal investigation into the events and causes of this casualty. The Korean Register will study closely the findings of all appropriate enquiries into this casualty - and move to inform fellow members of the Association as appropriate and to incorporate any lessons to be learned that could further improve safety and minimise future risk from this type of accident."

INTERCARGO stressed lessons need to be learnt promptly after maritime casualties, adding that timely submission of the casualty investigation report to IMO is important as a means to identify the causes of the incident and enable corrective actions to be taken.

IMO secretary-general Kitack Lim added that "Thankfully these occurrences are rare; but when they do happen, they serve to remind everyone that the seafarers, on whom we all depend, do a difficult and sometimes dangerous job; and that those of us responsible for making the industry safer can never stop striving for improvements." **NA**