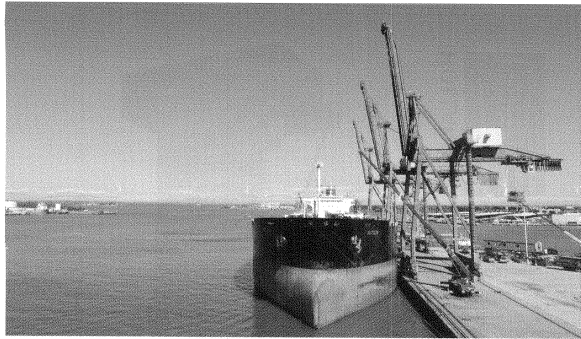


Improved bulk carrier safety

The last few years have seen some dramatic rule changes in order to enhance the safety of bulk carriers, such as the Diamond concept, spearheaded by DNV

During the 1980s and 90s, a large number of accidents occurred in the bulk sector. Too many seafarers lost their lives. The total loss rate for bulk carriers remained at an unacceptably high level and did not decline as it did for other ship types.

A Formal Safety Assessment carried out by the International Association of Classification Societies (IACS) showed two major areas of concern - ship sides and hatch covers. Total losses could often be traced back to these two structural elements.



Water ingress into one or more holds due to either a defect in or the collapse of the ship's sides or due to collapsing hatch covers as a result of green seas on deck, caused several total losses. The IACS agreed that from mid 2003, the bulkhead and double bottom in hold No1 were to be strengthened against flooding. Later on came requirements to strengthen ship sides and improve the way in which hatch covers were secured.

DNV spared neither time nor effort in contributing to rules and unified requirements laid down by IACS which would improve the safety of bulk carriers in line with the DNV objective: to safeguard life, property and the environment.

Recently, IACS members have worked together and agreed upon a common set of structural rules for tankers and bulk carriers. These rules came into in force by April this year, and DNV sees this as a major step forward.

Three months later, in July, SOLAS Ch XII - Additional Safety Measure for Bulk carriers - came into effect. With these two major steps, bulk carrier safety has been considerably improved.

There must naturally be no compromise on safety, but no ship owner lives for safety alone. Ships and especially bulk carriers in the so called Handy, HandyMax and SupraMax segment have to be extremely versatile to carry whatever bulk cargo exists. They must also be effective for loading/discharging and have a short turnaround time in ports.

DNV DIAMOND -A CUT ABOVE THE REST

The DNV Diamond concept is a way to bring this safety development into this shipping segment. The origins of the Diamond concept were laid in 2002 when a consortium made up of different disciplines got together to design, from scratch, a vessel that would primarily focus on safety and efficient operations, from both the owner's and port operator's viewpoints.

So far the Diamond story has been and continues to be a success, with some 76 contracted vessels and many more options and, more importantly, satisfied customers returning for more. By any objective measurement, the concept and design has now proven itself.

A double hull, featuring a closed under deck/cross deck structure as well as double skin hatch covers, enabling the insides of holds to be kept very clean, is enhanced by specially designed self-trimming hopper sides, built-in hold lighting, a hold washing system and holding tanks for the temporary storage of hold washing water. There are obvious benefits for an owner's crew here, but much of the benefit is seen by port operators and/or charterers.

The Diamond consortium, spearheaded by the UK-based Graig Shipping, held onto the idea that these benefits would also in time be recognized by charterers and facility operators and would result in greater demand for Diamond vessels compared to other more conventional designs.

This has proven to be the case, with very positive feedback where these vessels are trading. Graig believes that whilst this is being noticed now, the real benefits will be seen when the market is less buoyant and charterers can afford to be more discriminating.

The additional power of the main engine available on a Diamond ship has had some effects on

fuel consumption. The long-held conservatism of mariners is such that it takes real discipline not to pour on the power in the early stages of a voyage to establish a "just in case" margin for the latter part of the voyage. This practice, however, will always burn additional fuel as even when slowing down later on, the losses will never be fully recouped.

However, what is often not calculated is that having the additional power also means that where other vessels may have missed a deadline due to inclement weather or mechanical problems, these vessels have the ability to overcome the problems.

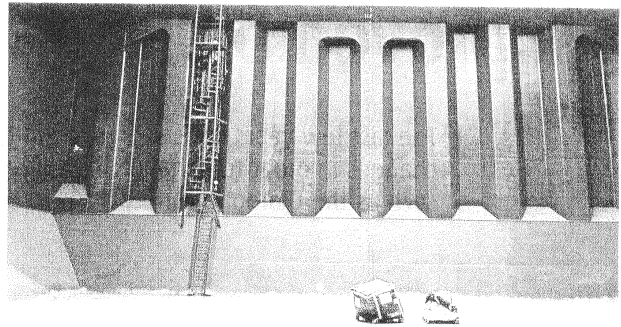
The Diamond concept has the capacity and stability to run with no ballast hold, hence establishing significant savings on fuel and, depending on the ballast run, almost totally offsetting the difference without the potential environmental consequences.

The same philosophy is applied to ballasting operations, cranes etc., all of which give these vessels a flexibility and performance that exceed most, if not all, equivalent-sized vessels.

The consortium felt from the beginning that, in the shipping industry as opposed to any other form of transportation, the capturing of information while the ship is in service and feeding this back to the design, specification and/or supervision teams are sadly lacking.

The feedback that does occur tends to be in the form of warranty claims if it is serious enough, or in the heads of superintendents, with a subsequent limited and sporadic effect on future newbuildings.

The Diamond consortium has deliberately sought feedback both during the construction phase and once the vessels are in operation. The feedback which is gained from both owners directly and planned inspections by the consortium is systematically analyzed and the appropriate action is taken.



There is no doubt that for now the market will continue to be dominated by new generation single skin bulkers. Nevertheless, DNV anticipates that these first 76 Diamonds vessels will not be the last, but will continue to carve out a healthy slice of the market - increasingly supported by charterers. ■