

# Diamond cuts a dash during seagoing debut

New double-hulled handymax makes promising start, writes **David Tinsley**

**DISTINGUISHED** by a robust, double-hull construction, the Diamond 53 generation of handymax bulk carrier has made its seagoing debut following last week's completion of *Spar Lyra* in China. Conceived by Cardiff-based Graig Group and Danish naval architect Carl Bro, the 53,000 dwt design has attracted firm contracts to date for 21 vessels at Chinese and Vietnamese yards, along with options on at least 12 further ships. Advanced negotiations elsewhere in the Asian shipbuilding industry could see an early extension to the programme.

The Diamond 53 breaks new ground in bulkship design, combining an innovative approach to trading needs and future regulatory requirements with price-consciousness from low-cost, emerging shipbuilding areas.

*Spar Lyra* leads a series of 12 such vessels from Chengxi Shipyard, China, eight of which are for Bergen-based operator Spar Shipping.

Hitherto reliant on the secondhand market, Spar has secured long-term, blue chip charters against all eight newbuildings. *Spar Lyra* and the follow-on vessel, *Spar Lynx*, are each the subject of three-year commitments by Denmark's J Lauritzen

organisation. The ships were originally ordered through Graig and sold on to Spar.

Graig's Shanghai-based supervision team, responsible for more than 40 newbuildings of various types in China on behalf of the group and other owners, is overseeing the building of the handymax class. Technical management and manning of the Spar series has been assigned to Hong Kong-based Fleet Management, which husbands the Norwegian company's bulker tonnage.

With a panamax breadth of 32.26 m and a length overall of approximately 190 m, the Diamond 53 offers total grain-equivalent cargo volume of 65,700 cu m in five flush-sided holds. The hatchways are wide for a handymax bulker, and the holds are plumbed by four high-stooled, 36t Tsuji deck cranes. After extensive consultation with Det Norske Veritas over structural and regulatory issues, and with key operational input from Graig, the design aims to ensure a balance between technical and practical needs.

While CSIC-controlled Chengxi has been entrusted with 12 such newbuildings, including four for Hong Kong-based owners besides the eight for Spar, privately-



The launch of *Spar Lyra*: first in the new Diamond 53 series.

owned New Century Shipbuilding has two vessels in hand for Densan Shipping of Turkey and two for Thenamaris of Greece.

Subsequently, Graig Investment awarded five bulkers plus 10 options to the Vietnam Ship Building Industry Corporation (Vina-shin), which placed three of the firmly-contracted Diamonds with Ha Long Shipyard and two with Nam Trieu Shipbuilding Industry Company. Four of the five have been re-sold, including one to Bibby Line of Liverpool, and three to a joint venture of US firm San Juan Navigation and Bermuda investment outfit Interlink.

Through the use of a double hull, the holds present a flush face to the cargo, facilitating discharge and cleaning and promising lower inspection and maintenance costs.

All piping and service lines have been placed below deck in a fore-and-aft passageway, making for an unobstructed main deck, reduced exposure of fittings and potentially reduced maintenance.

One of the most operationally important differences between the Diamond 53 and comparable capacity, single-skin bulkers is the new type's ability to accommodate the requisite water ballast volume in double bottom and side tanks in all conditions.

This obviates the need to take water ballast in No 3 cargo hold when running in ballast in heavy weather.

Whereas alternate hold loading of dense cargoes at scantling draught in a standard handymax carrier dictates uneven distribution of cargo, with a higher intake in No 3 hold, the Diamond generation allows alternate hold

loading with an equal, even distribution. The maximum allowable hull girder bending is claimed to be 50-70% higher than class minimum.

*Spar Lyra* is suited to a broad range of bulk commodities as well as packaged timber and steel products. It is suitable for up to two tiers of 25 t steel coils, compared with stricter limitations imposed on single-skin handymax carriers.

The power source is an MAN B&W two-stroke diesel of the 6S50MC-C type, manufactured by licensee Hudong. The engine produces 9,480 kW to ensure a laden service speed of 14 knots. Fuel oil tanks are protected between the inner shell and the main machinery space.

Graig hopes to augment its Diamond offering with a 32,000 dwt version, for possible construction in Vietnam.

## TECHNICAL PARTICULARS

### Diamond 53 handymax bulk carrier

Length oa	190.00 m
Length bp	183.25 m
Breadth, moulded	32.26 m
Depth, moulded	17.50 m
Draught, scantling	12.50 m
Deadweight	53,000 dwt
Deadweight, cargo capacity	50,500 dwt
Gross tonnage	31,000 gt
Cargo volume (grain)	65,700 cu m
No of holds	5
Deck cranes	4 x 36t
Main engine power	9,480 kW
Speed, at 12.5m scantling draught	14.0 knots
Speed, at 8.1m ballast draught	15.3 knots