Imabari develops new very large iron ore carrier called "IS BRASTAR"



Imabari Shipbuilding Co., Ltd. has developed a 335,000DWT iron ore carrier. This 300,000DWT class series named as IS BRASTAR will be constructed for the iron ore transport service on the Brazil and Asia routes to cope with increasing demand for transport of Brazilian iron ore.

The IS BRASTAR is the largest iron ore carrier that has ever been developed by Imabari, and the increased cargo loading capacity will decrease the transport cost and CO₂ emission per cargo weight in a long distance shuttle service.

The vessel will have five cargo holds and nine single panel hatches to shorten the time required for cargo handling, and adequate hull strength will be provided for loading dense iron ore. Fuel oil tanks protected by double hull construction will ensure prevention of marine pollution.

The main engine will use the latest model of B&W 7S80MC-C (Mark VIII) diesel engine to achieve a service speed of 15.15 knots, which will secure stable and punctual transport service. An energy saving device will be installed at the leading edge of the rudder. With these combined effects, the fuel consumption is expected to be decreased further.

IS BRASTAR of the series name stands for Imabari Shipbuilding, BRAzil, and STAR for exclusively constructing the iron ore carriers to be put in service between Brazil and Asia. The first vessel of the series will be completed in

Principal particulars

Length, o.a.:	339.9m
Length, b.p.:	330.00m
Breadth, mld.:	60.00m
Depth, mld.:	28.80m
Draught, mld.:	21.65m
DWT:	335,000t
GT:	167,500
Main engine: B&W 7S80MC-C (Ma	x VIII) diesel x 1 unit
MCR:	29,260kW x 78rpm
Service speed:	15.15kt

For further information please contact:

Website: http://www.jsea.or.jp



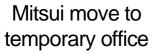
MHI Completes membrane type LNG carrier SERI BALHAF

Mitsubishi Heavy Industries, Ltd. (MHI) has completed construction of the SERI BALHAF (HN: 2223), a No. 96 Membrane type LNG carrier with a tank capacity of 157,720m³, and delivered the vessel to MISC Berhad at the Nagasaki Shipyard & Machinery Works on Jan. 1, 2009.

The main propulsion system of the vessel uses electric propulsion motors with the Dual Fuel Engine (DFE) plant system, which has better fuel oil efficiency.

High propulsive performance is achieved with the refined hull form using CFD (Computational Fluid Dynamics) and optimum dimension for the membrane tank system.

The distributed control system is provided to allow monitoring and control of the principal machinery and the



Mitsui Engineering & Shipbuilding Co., Ltd. will temporarily move its Head Office to the new address given below. Rebuilding of the present office building will be completed by the spring of 2012. The move to the temporary office will begin in mid-February and end in mid-March this year. New Address

3-16, Nihonbashi 1-chome, Chuoku, Tokyo 103-8263

Phone: 03-5202-3147 FAX: 03-5202-3064



Temporary office



equipment of the engine and cargo handling areas at the centralized control room for easy operation.

The LNG tanks utilize the GTT No.96E 2F membrane tank system.

Principal particulars:

 Length (o.a.):
 294.6m

 Length (b.p.):
 281.6m

 Breadth:
 46.5m

 Depth:
 25.8m

 Draught, designed:
 11.15m

Gross tonnage: 107,633
Cargo tank capacity: 157,720m³
Main generator engine: Dual fuel engines 11,400kW x 3 units and 5,700kW x 1 unit

Main engine: Propulsion motors x 2

units

Propulsion Output: 24,750kW x

78rpm

Speed, service: 19.5kt Classification: BV

Kanda Completes Ferry, QUEEN CORAL PLUS

Kanda Shipbuilding Co., Ltd. completed construction of QUEEN CORAL PLUS, a passenger/car ferry of 6,000GT, for the co-owners, Japan Railway Construction, Transport and Technology Agency (JRTT) and Marix Line Co., Ltd. of Kagoshima, Japan, on November 27, 2008. The ship is the replacement for the QUEEN CORAL (built in 1993).

The new ferry entered service between Kagoshima and Okinawa on Dec. 3, 2008. The PLUS of the new ship name stands for "Pleasant, Luxury, and Utility Ship," and the ship is classed as the barrier-free type.

The QUEEN CORAL PLUS measures 143.3m in length and 21.6m in breadth. Two 9,000ps main engines

can achieve a service speed of 21.4 knots. The ship can accommodate 470 (maximum 800) passengers and carry 26 12m trucks, 44 passenger cars, and 246 containers (238 10ft and eight 20ft containers).

Principal particulars

Owner: JRTT/Marix Line Co., Ltd. Builder: Kanda Shipbuilding Co., Ltd.

Hull No.: 498

Ship type: Passenger/car ferry

 $L\left(\text{o.a.}\right) \times B \times D \times d\text{: }143.30\text{m} \times 21.60\text{m}$

x 7.65m x 6.25m DWT/GT: 3.537t/ 5.910

Main engine: JFE 12PC2-6V diesel x

2 units

Speed, service: 21.4kt Classification: JG Completion: Nov. 27, 2008



Naikai Zosen Completes Car Carrier, JUPITER LEADER

Naikai Zosen Corporation completed construction of the JUPITER LEADER (HN: 722), a 44,412GT car carrier, for River Spring Corporation at the Setoda Works on Nov. 28, 2008. The vessel has a capacity of 4,300 vehicles.

The JUPITER LEADER is the rollon/roll-off type and can carry passenger cars, trucks, buses, and heavy duty vehicles simultaneously on the multideck system. The upper accommodation hold consists of eight decks including the boarding deck, and the lower hold below the boarding deck has three decks. Two of these are liftable decks to cope with tall vehicles. The Nos. 5 and 7 decks can accommodate heavy vehicles including construction machinery like truck cranes.

The shore ramp doors are installed at the midship and stern of the boarding deck starboard side, and hold ramps are provided for drive through access to the accommodation bay. The vessel is equipped with a bow thruster for easier berthing and unberthing.

The fuel oil tanks are protected by double-hull construction, ensuring marine pollution prevention.

Principal particulars

Length (o.a.): 83.00 m Length (b.p.): 170.00m Breadth, mld.: 30.20m Depth:28.80m at upper deck, 14.40m at boarding deck

Draught, designed: 7.70 m GT: 44,412 DWT: 12,889t Loading capacity:4,300 units (passen

ger cars)

Complement: 25 Main engine:MAN B&W 6S60MC-C

diesel x 1 unit

MCR: 11,620kW
Speed, service: abt. 20.0kt
Classification: NK
Completion: Nov.22, 2008



Kawasaki completes LNG carrier, KAKUREI MARU

Kawasaki Shipbuilding Corporation delivered the 2,500m³ capacity LNG carrier, KAKUREI MARU (HN: 1596), to its owner Tsurumi Sunmarine Co., Ltd. on Nov. 27, 2008. The vessel is the fourth of this class constructed by Kawasaki.

The vessel is the pressure build-up type coastal LNG carrier type developed by Kawasaki for convenient short distance transport.

The LNG carrier has two cylindrical LNG cargo tanks of the pressure build-up type (total containment capacity: 2,500m³). These two tanks are contained in two separate cargo holds with the heat insulation system installed. This allows free contraction of the tanks independently from the ship structures.

Pressure build-up tank construction has sufficient capacity to accumulate the pressure of the boil-off gas (BOG), and no leakage of BOG occurs from the tanks.

Cargo tank compartments employ double hull construction for both shipside and bottom, ensuring safety measures against an accident such as collision or stranding. The tank covers are used to shield the LNG tank tops and shut out external heat.

The carrier is equipped with a main diesel engine because BOG treatment (use as fuel for main marine boiler) is unnecessary.

Principal particulars
Length (o.a.): 86.29m

Length (b.p.): 80.30m Breadth, mld.: 15.10m Depth, mld.: 7.00mDraught, mld.: 4.30m GT: 2,952tDWT: 1,801t Cargo capacity: $2,512m^3$ Main engine: Hanshin Diesel LH38L diesel x 1 unit

MCR: 2,059kW x 240rpm Speed, service: abt. 13.0kt Complement: 14 Classification: NK



MES delivers Panamax bulk carrier MV MEDI SALERNO 2nd ship over 80,000DWT with 225m length

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) completed and delivered 81,000DWT bulk carrier MV MEDI SALERNO (HN: 1688) at its Tamano Works to Clio Marine Inc., Liberia, on Nov. 28, 2008.

This is the second ship of MES's new design series of 81,000DWT with overall length of 225m, the same length as the 75,000DWT Panamax carrier, which had been built until 2002. This ship length is accommo-

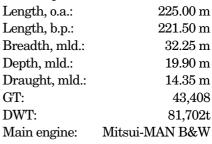
dated by the maximum length of grain terminal berths in Japan allowing a cargo hold capacity of 96,000m³.

The ship has improved hull form for superior propulsive performance and is equipped with the MIPB-Wing (Mitsui Integrated Propeller Boss with Wing) to achieve excellent fuel oil savings. The navigational speed is increased to 15 knots, and this makes ship operation more flexible. The main engine is the Mitsui-MAN B&W

6S60MC-C type that satisfies IMO exhaust gas standards, and achieves fuel oil savings by introducing derating to enable the optimum operation at the most appropriate output.

Other measures taken for environmental protection include ballast water exchange possible during navigation for preservation of ocean environment and adoption of generator engines that satisfy IMO environmental standards.

Principal Particulars



6S60MC-C diesel x 1 unit

MCR: 12,100kW x 94rpm
Speed, service: 15.0kt
Complement: 25 persons
Classification: NK
Delivery: Nov. 28, 2008



Universal Shipbuilding Corporation completes Suezmax tanker, TANGO

Universal Shipbuilding Corporation delivered the Suezmax Tanker, TANGO, to PINE MARITIME CORPORATION at the Tsu shipyard on May 30, 2008. The vessel is designed to transport crude oil.

The vessel is proud of her large deadweight at shallow draft corresponding to cargo oil tank capacity and good flexibility for port restrictions.

The vessel is also designed to achieve safe, economical and environment-friendly transportation of crude oil. The sophisticated hull form and Surf-Bulb (Rudder Fin with Bulb) enable very high energy saving. The main engine and generator engine satisfy the IMO environmental requirements and the vapour emission control system meeting USCG's regulation is installed. In addition, the ves-

sel has Green passport and LRS EP notations.

The vessel has three cargo pumps, and Auto Eductor Stripping System is provided for easy cargo handling. The cargo heating system is also provided in cargo oil tanks to transport various kinds of crude oil.

Principal particulars

 $L\,(\text{o.a.})\,x\,L\,(\text{b.p.})\,x\,B\,x\,D\,x\,d;\,274.3m\,x\\ 263m\,x\,48m\,x\,22.4m\,x\,16m$

DWT/GT: 149,993MT/78,809 Loading Capacity: 170,046m³

Main engine: Sulzer 6RTA72 x 1 unit

Speed: 16.3kt Complement: 31 Classification: LR

Completion: May 30, 2008



Hakodate completes log/bulk carrier for SILVER STAR SHIP LINE, S.A.

The Hakodate Dock Co., Ltd. completed and delivered the 32,162 DWT log/bulk carrier, ORIENT DREAM (HN: 828), to Silver Star Ship Line, S.A. in November 2008. The vessel is the 27th Super Handy 32 type bulk carrier.

The Super Handy 32 type bulk carrier is an intermediate size between handy size and Handymax size de-

signed to have especially shallow draft and wide breadth compared with other ships and remains sufficiently stable without any ballast water in the tanks during full loading of logs.

The ship dimensions and hull design permit calling at various ports, and this leads to economical ship operation. The Nos. 2, 3, and 4 cargo holds have topside tanks and double

hull structure. The Nos. 1 and 5 cargo holds have topside and lower tanks. The hatch covers except the No. 1 hatch are wider in size (19.55m x 19.60m) to facilitate loading and unloading.

The ship design has been upgraded compared with the previous type of 32,000DWT log/bulk carrier with adoption of high power main engine and bulbous stern for increased ship speed. The accommodation quarters are upgraded with modern facilities such as vacuum toilets.

Principal particulars:

 $L(o.a.) \times L(p.p.) \times B \times D \times d ; 175.53m \\ \times 167.00m \times 29.40m \times 13.70m \times \\ 9.640m$

DWT/GT; 32,162t/19,828

Main engine; Mitsubishi 6UEC45LSE diesel x 1 unit

Output; 6,840kw(9,300PS) x 129r.p.m.

Complement; 24 Classification; NK



Oshima delivers 106,000DWT bulker, KUMANO MARU

Oshima Shipbuilding Co., Ltd. delivered KUMANO MARU (HN: 10488), the 3rd vessel in the series of 106,000DWT type bulk carriers on Oct. 10, 2008 to Golden Helm Shipping Co., S.A. The vessel has the world's largest deadweight of 106,507t with shallow draft of 13.44m but wider beam of 43.0m.

For effective cargo loading/unloading, the vessel has wide hatch openings for the seven cargo holds, providing a large cargo loading capacity of 130,679t. The vessel has large ballast pumps (2,000 m³/h x 2 units) for effective ballast operation, and two slop tanks to collect cleaning water for the holds and upper deck to prevent environmental pollution. Enhanced mooring equipment is employed for increased safety in mooring activity during rough weather in winter.

The vessel uses the Seaworthy Bow developed by Oshima, which demonstrates excellent seaworthiness, improving speed performance under rough sea weather conditions (about 5% power saving possible at the head sea compared with the ordinary bulbous bow). The optimized hull form and energy saving equipment can reduce fuel oil consumption.

Principal Particulars

Length (o.a.): 254.62m Length (b.p.): 249.62m Breadth, mld.: 43.00m Depth, mld.: 19.39m
Summer draught, mld.: 13.44m
DWT: 106,507MT
GT: 58,138
Loading capacity: 130,648m³
Main engine: Kawasaki MAN B&W
6S60MC diesel x 1 unit

MCR: 16,680 PS at 105.0 rpm Speed, service: 14.30kt Classification: NK Completion: Oct. 10, 2008



YAKUMOSAN

Owner: Star Express Inc. Builder: IHI Marine United Inc.

Hull No.: 3223 Ship type: VLCC

 $\begin{array}{c} L\,(o.a.)\,x\,L\,(b.p.)\,x\,B\,x\,D\,x\,d;\,333.00m \\ x\,\,324.00m\,\,x\,\,60.00m\,\,x\,\,29.00m\,\,x \end{array}$

19.2m

DWT/GT: 300,000t/160,300

Main Engine: DU-Sulzer 7RT-flex84T-D diesel x 1 unit

MCR: 27,160kW Speed, Service: 15.8kt Classification: NK Completion: Nov. 28, 2008



APL FLORIDA

Owner: Liberian owner

Builder: Koyo Dockyard Co., Ltd. (Imabari Shipbuilding Co., Ltd.)

Hull No.: 2237

Ship type: Container carrier

 $L\,(o.a.)\,x\,L\,(b.p.)\,x\,B\,x\,D\,x\,d;\,293.18m\\ x\,\,276.00m\,\,x\,\,40.00m\,\,x\,\,24.30m\,\,x$

14.00m

DWT/GT: 72,912t/71,787

Main engine: B&W 11K98MC (MARK VI) diesel x 1 unit

Speed, service: abt. 26.0kt Complement: 25

Classification: NK Completion: Oct. 1, 2008



BAO AN

Owner: Erica Navigation S.A.

Builder: Namura Shipbuilding Co.,

Ltd.

Hull No.: 287

Ship type: Ore carrier

L (o.a.) x L (b.p.) x B x D x d: 319.58m x 308.00m x 54.00m x 24.30m x

18.127m

DWT/GT: 229,117t/113,928

Main engine: 6UEC85LSll diesel x 1

unit

MCR: 22,432kW x 76.0rpm

Complement: 25 Classification: NK

Completion: Oct. 31, 2008



STAR OF RBD

Owner: Sun Cordia Marine S.A. Builder: Sanoyas Hishino Meisho

Corporation Hull No.: 1273

Ship type: Bulk carrier

 $\begin{array}{c} L\,(o.a.)\,x\,L\,(b.p.)\,x\,B\,x\,D\,x\,d;\,229.00m \\ x\,\,223.00m\,\,x\,\,32.24m\,\,x\,\,20.20m\,\,x \end{array}$

14.551m

DWT/GT: 83,617t/44,251

Main engine: MAN B6W 6S60MC-C

diesel x 1 unit

Speed, service: abt. 14.2kt

MCR: 11,640kW Classification: ABS



GINGA LEOPARD

Owner: Silver Sail (Panama) S.A. Builder: Shin Kurushima Dockyard Co., Ltd.

Hull No.: 5471

Ship type: Chemical tanker

L (o.a.) x B x D x d (ext.): 159.98m x 26.80m x 14.20m x 10.076m

DWT/GT:25,982t/16,222

Main engine: 6UEC52LA diesel x 1 $\,$

unit

Speed, service: 15.50 Classification: NK

Completion: Nov. 13, 2008



FPMC C HONOR

Owner: Formosa Honor Marine Corp. Builder: Universal Shipbuilding Cor-

poration Hull No.: 080 Ship Type: VLCC

 $L(o.a.) \times B \times D \times d: 329.99 \text{m} \times 60.00 \text{m}$

x 29.70m x 21.523m DWT/GT: 297,078t/156,987 Speed, service: 16.0kt

Main engine: MAN B&W 7S80MC

(Mk 6) diesel x 1 unit Classification: ABS/CCRS Completion: Nov. 14, 2008

