

Kawasaki delivers 153,000m³-class LNG BARKA to Lloyds TSB



Kawasaki Shipbuilding Corporation has delivered the LNG BARKA (HN: 1591), an LNG carrier with a capacity of 153,643m³, to Lloyds TSB General Leasing (No. 3) Limited.

The LNG BARKA is the first carrier of the 153,000m³ series of the newly developed design of Kawasaki. The LNG transport capacity is about 8,000m³ larger than that of the 145,000m³-class predecessor of the company although the dimensions of the new design are the same with the 145,000m³ class. This allows the LNG BARKA to call at world's major LNG import terminals.

The features of the LNG BARKA include: Four MOSS type independent spherical tanks secure the large LNG transport capacity more than ever before, three tanks of which, except one located in the bow, are stretched vertically by providing a cylindrical section at the equator of the spherical tank. Thus, the increase in the capacity is attained.

The LNG BARKA uses the Kawasaki Panel System demonstrating the proven effect. So the boil-off rate is achieved less than 0.15% per day by the system. The cargo tank compartment consists of the double side shell and bottom to protect the LNG tanks from the direct damage even if the outer hull would be damaged in an accident.

The wheelhouse has the advanced integrated electronic navigation equipment, which were previously installed separately. This has further improved ship operation tasks. Windows around the wheelhouse provide a panoramic view of 360 degrees, allowing one-man operation during ocean-going navigation.

Cargo-handling operation is carried out at the cargo control room located in front of the accommodation quarters, where the Kawasaki Integrated Automation System (IAS) is installed to monitor and control cargo-handling operation. This system is also installed at the engine control room for monitoring engine conditions.

Principal particulars

L (o.a.) x L (b.p) x B x D x d:	289.50m x 277.00m x 49.00m x 27.00m x 11.90m
DWT/GT:	76,713t/ 121,514
Cargo tank capacity:	153,643m ³ (-163°C, at 98.5%)
Main engine:	Kawasaki UA-400 steam turbine engine x 1 unit
MCR:	27,600kW x 82rpm
Speed, service:	about 19.5kt
Complement:	45
Classification:	NK
Completion:	Dec. 29, 2008



For further information please contact:

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

JAPAN SHIP EXPORTERS' ASSOCIATION

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MHI completes environmentally friendly RO/RO type vehicle carrier, AURIGA LEADER, for NYK

Mitsubishi Heavy Industries, Ltd. (MHI) has completed construction of the roll-on/roll-off type vehicle carrier, AURIGA LEADER, with a car carrying capacity of approximately 6,400 passenger car equivalent for Nippon Yusen Kabushiki Kaisha (NYK Line) at the Kobe Shipyard & Machinery Works on Dec. 19, 2008.

The AURIGA LEADER is the most advanced and environmentally friendly car carrier incorporating the 40kW solar photovoltaic system and inverter control system for the main cooling sea water pump in order to

reduce NO_x and CO₂ emissions. 328 modules of solar panels are outfitted on the garage top deck and the generating capacity by photovoltaic system is the largest among existing vessels worldwide.

The new car carrier adopts a refined hull design below the water line and the wind pressure reducing design for the upper deck of the bow. The vessel has the double bottom construction for the bunker oil tanks, and this will reduce the risk of oil leakage from the tanks in the case of stranding.

A Mitsubishi UE engine with a SIP lubrication system is adopted as the main engine, which features low fuel oil and lubrication oil consumption and low NO_x emissions.



40kW solar photovoltaic system arrangement on the garage top deck



Principal particulars	
L (PP) x B x D:	192.00m x 32.26m x 34.52m
Gross Tonnage:	60,213
Car carrying capacity:	approximately 6,400 passenger cars (RT43 Type)
Main engine:	Mitsubishi-UE 7UEC60LSII (P/U) diesel x 1 unit
Speed, service:	abt. 20.35kt
Complement:	30
Classification:	NK NS*(RORO EQ C V), MNS*(MO)
Completion :	Dec. 19, 2008

Universal completes Panamax type bulk carrier, KM MT.JADE

Universal Shipbuilding Corporation delivered an 81,000 DWT Bulk Carrier, KM MT.JADE to Kuang Ming (Liberia) Corp. at the Maizuru shipyard on October, 2008.

The Vessel is the 3rd vessel of the newly designed Panamax type bulk carrier and is brought the largest deadweight and cargo hold capacity within the restriction of the length overall for the Panamax type bulk carrier by various independent technology.

The bow shape, called the "Leadge-Bow", reduces the added wave resistance not only at the laden condition but also the ballast condition. The Leadge-Bow is newly developed and brought more superior performance at sea than "Ax-Bow", which more than 60 vessels have been provided with.

The Vessel has high propulsion ef-

iciency and energy saving, equipped with the Surf-Bulb (Rudder fin with bulb) after the propeller and SSD (Super Stream Duct) in front of the propeller.

The vessel was designed to meet recent IMO rule, such as PMA (Permanent Means of Access) and forecastle deck.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d:	225m x 222m x 32.26m x 20m x 14.38m
DWT/GT:	81,487MT/42,707
Cargo Hold Capacity:	96,030m ³
Main engine:	MAN B&W 7S50MC-C diesel x 1 unit
Trial Speed:	16.0kt
Complement:	25
Classification:	ABS
Completion:	Oct. 31, 2008



Imabari completes VLCC BRIGHT HARMONY for Southern Route Maritime

Imabari Shipbuilding Co., Ltd. completed construction of BRIGHT HARMONY (HN: 8064), a 309,774DWT crude oil carrier, for delivery to Southern Route Maritime, S.A. at the Saijo Shipyard on Feb. 5, 2009. The vessel has the maximum size to pass through the Strait of Malacca.

The vessel has permanent means of access, fuel oil tanks protected by double hull construction, and an energy saving device installed at the leading edge of the rudder. These installations contribute to safe, environment-friendly, and economical operation. The vessel is designed to improve safety and reliability and has the NK notation of PS-DA and PS-FA.

The vapor emission control system satisfying the USCG regulations and mooring fittings meeting the main OCIMF requirements are installed. Three cargo pumps are installed, and

cross connections in the cargo oil pump room are arranged to enable any pump to take suction from and deliver to any line.

Principal particulars

Length, o.a.:	332.99m
Length, b.p.:	324.00m
Breadth, mld.:	60.00m
Depth, mld.:	29.00m
Draught, mld.:	21.10m

DWT:	309,774t
GT:	160,226
Loading capacity:	350,571m ³
Main engine:	Mitsui-MAN B&W 8S80MC-C (Mark VII) diesel x 1 unit
MCR:	31,040kW x 76.0rpm
Speed, service:	16.2kt
Complement:	30
Classification:	NK
Delivery:	Feb. 5, 2009



IHIMU completes 302,107DWT double-hull VLCC, TAMBA

IHI Marine United Inc. delivered 302,107DWT double-hull VLCC, TAMBA, for Rafflesia Shipholding S.A. at its Kure Shipyard on Jan. 30, 2009.

TAMBA was developed to have maximum deadweight with maximum draft to pass the Strait of

Malacca, and has the following features: Superior economical operation on worldwide trades, Persian Gulf-Far East trade with good cargo loading capacity at shallow draft condition, installation of common rail electronically-controlled DU-Sulzer 7RT-flex84T-D high power engine, opti-

mized arrangement of cargo oil tanks, ballast tanks and other compartments, resulting in lower gross tonnage.

To realize good propulsion performance, economical operation and good maneuverability of the ship, IHIMU designed the ship with its technical/engineering knowhow, CFD analysis, 3D-FEM ship model analysis, walk-through simulation and apparatus installation simulation utilizing the CIM system "Ajisai," which IHIMU originally developed.

Principal particulars

L (o.a.) x B x D x d:	333.0m x 60.0m x 29.0m x 20.5m
DWT/GT:	302,107t/159,927
Main engine:	DU-Sulzer 7RT-flex 84T-D diesel x 1 unit
MCR:	27,160kW x 74.0rpm
Speed, service:	15.7kt
Classification:	NK
Completion:	Jan. 30, 2009



MES delivers double hull Malacca Doublemax VLCC TSUSHIMA

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) completed the double hull VLCC, TSUSHIMA (HN: 1697), and delivered the vessel at the MES Chiba Works to Maybaru Shipping & Trading Pte Ltd on Dec. 16, 2008. The TSUSHIMA is the sixth ship in this series of Mitsui Malacca Doublemax VLCC with enhanced transport efficiency.

This ship has the biggest deadweight and cargo hold capacity of the Malaccamax type tanker(*) and is able to efficiently transport crude oil with frequently loaded density. For ocean and global environmental preservation, the double hull system is applied not only to the ship's hull but also to the fuel oil tank of the ship. Furthermore, the newly developed MIPB-Wing is installed to improve the propulsion performance, such as navigation speed and fuel oil consumption. Effective arrangement of means of access required by SOLAS enables safety inspection in cargo oil tanks and water ballast tanks.

The other features are as follows: The fuel oil tank of this ship has a double hull construction. The ship has the newest bow form, stern hull form,



and high efficiency propeller. A turbo generating system is used to recover exhaust gas heat energy from the main engine. Fixed type inflammable gas detection system is installed to the ballast tank and pump room. Two sets of Differential Global Positioning System (DGPS), electronic chart display information system including track control system (ECDIS), and automatic ship identification system (AIS) are installed for better navigational planning and safety navigation.

Principal Particulars

L (o.a.) x L (b.p.) x B x D x d: 333.00m x 324.00m x 60.00m x 28.80m x 20.90m

DWT/GT: 310,391t/160,116
 Cargo tank capacity (100%): 354,689.0m³
 Main Engine: MITSUI-MAN B&W 7S80MC-C diesel x 1 set
 MCR: 27,160kW x 76rpm
 Complement: 30
 Classification: NK
 Delivery: Dec. 16, 2008

Note (*): Malaccamax Type Ship: Ship with maximum draft passable through Malacca Strait, Malaysia maximizing the deadweight tonnage (Most ships operated by Japanese ship owners have a maximum draft of 20.5 meters.)

Kawasaki delivers VLCC, M. STAR, to Probe Shipping

Kawasaki Shipbuilding Corporation has delivered the 315,000DWT VLCC, M. STAR (HN: 1590), to the owner, Probe Shipping S.A., at the Kawasaki Sakaide Shipyard.

The vessel employing the newly developed hull design has the maximum loading capacity that is allowed to pass through the Strait of Malacca and can call at any of main crude oil import

terminals in Japan.

The bunker oil tanks of the vessel employ double hull construction like the cargo tanks for marine pollution prevention in an accident. The rudder bulb with fins (RBS-F) and highly efficient propeller are used for improved fuel saving.

Principal particulars

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 21.029m
 DWT/GT: 314,016t/160,292
 Cargo tank capacity: 351,580m³
 Main engine: Kawasaki MAN B&W 7S80MC-C diesel x 1 unit
 MCR: 27,160kW x 76rpm
 Speed, service: about 15.55kt
 Complement: 32
 Classification: NK



JSEA participates in NOR-SHIPPING 2009

The 22nd NOR-SHIPPING 2009 (The 22nd International Shipping Exhibition) will take place at the Lillestrom Exhibition Centre in Lillestrom for four days from June 9 through 12. This event is organized by the Norway Trade Fairs (NORGES

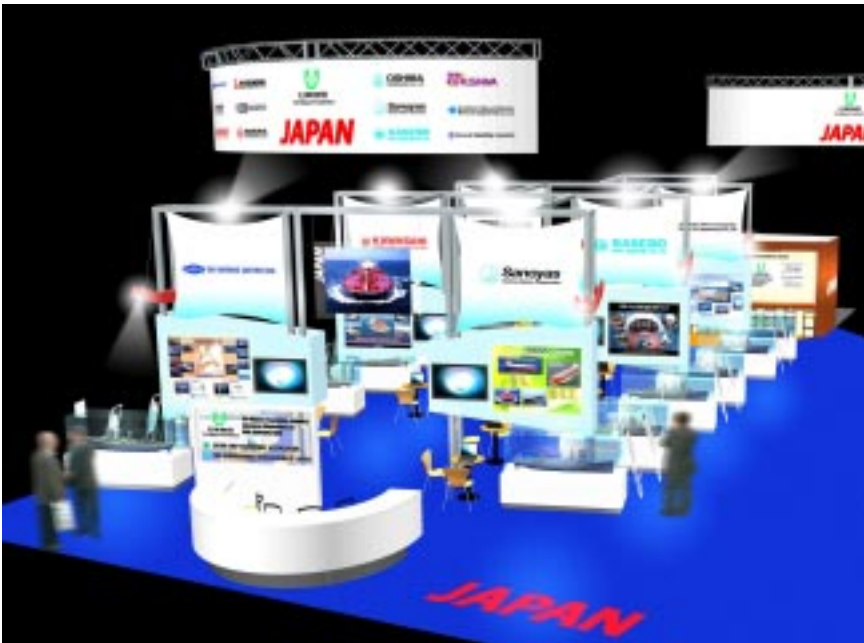
VAREMESSE) and sponsored by the Norwegian Shipowners' Association and organizations related to the maritime industry.

The Japan Ship Exporters' Association consisting of 12 Japanese shipbuilders will participate in the exhibi-

tion with the financial support of The Nippon Foundation and in cooperation with The Shipbuilders' Association of Japan. JSEA will use a 240m² exhibition area where Japanese shipbuilding technology will be presented. Particular ship hull forms and newly developed ship designs will be introduced with the liquid crystal display (LCD) system and other displays.

Exhibitors:

IHI Marine United Inc.
 Imabari Shipbuilding Co., Ltd.
 Kawasaki Shipbuilding Corporation
 Mitsubishi Heavy Industries, Ltd.
 Mitsui Engineering & Shipbuilding Co., Ltd.
 Namura Shipbuilding Co., Ltd.
 Oshima Shipbuilding Co., Ltd.
 Sanoyas Hishino Meisho Corporation
 Sasebo Heavy Industries Co., Ltd.
 Shin Kurushima Dockyard Co., Ltd.
 Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
 Universal Shipbuilding Corporation

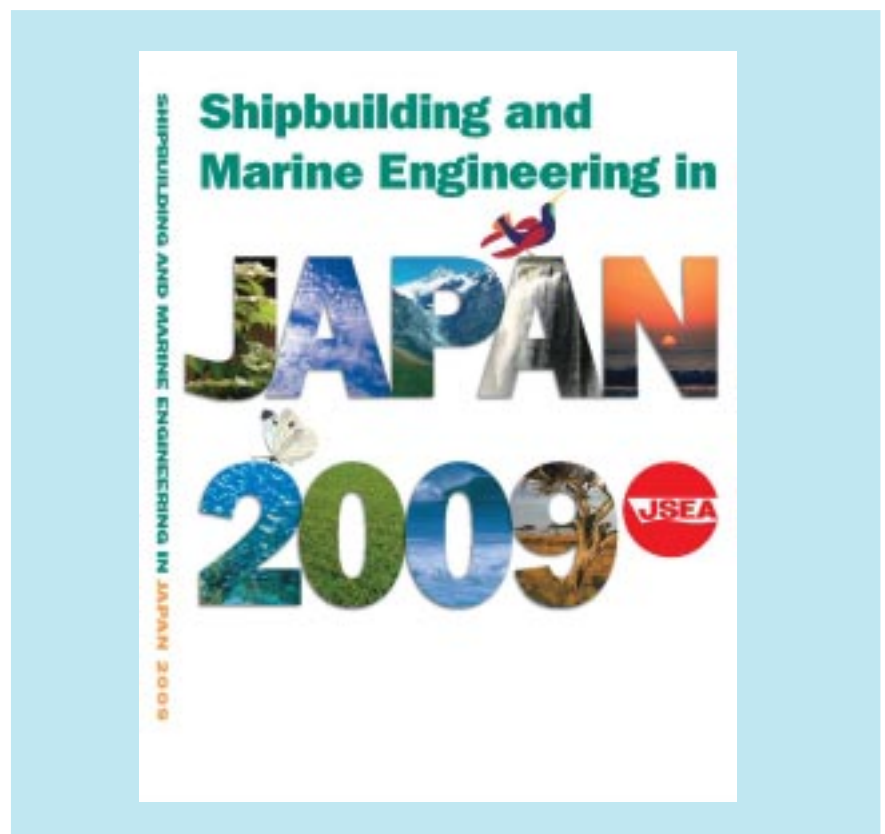


“Shipbuilding and Marine Engineering in Japan 2009” issued

Shipbuilding and Marine Engineering in Japan 2009 has been published by the Japan Ship Exporters' Association (JSEA) with financial support from the Nippon Foundation (Chairman: Mr. Y. Sasakawa).

The publication (210mm wide x 285mm tall, four color and 64 pages) outlines the latest shipbuilding achievements, both ships and advanced technologies. The details of ships and shipbuilding technology are compiled in a CD-ROM for readers' convenience.

Major contents include new completion, new shipbuilding technology, navigation systems, energy-saving equipment and systems, main engines, software for shipbuilding rationalization, and building and repairing facilities, emphasizing technical features and R&D activities, which have been introduced in the last two years.



PLEIADES SPIRIT

Owner: Fair Wind Navigation S.A.
 Builder: Toyohashi Shipbuilding Co., Ltd.
 Hull No.: 3615
 Ship type: PCTC (vehicle carrier)
 L (o.a.) x B x D x d (ext.): 199.99m x 32.26m x 34.26m x 9.70m
 DWT/GT: 17,424t/60,330
 Main engine: MITSUI-MAN B&W 7S60MC-C (Mark 8) diesel x 1 unit
 Speed, service: 20.65kt
 Classification: NK
 Completion: Dec. 22, 2008

**RHOUD EL HAMRA**

Owner: Hyproc Shipping Company
 Builder: Namura Shipbuilding Co., Ltd.
 Hull No.: 260
 Ship type: LPG carrier
 L (o.a.) x L (b.p.) x B x D x d: 156.07m x 148.00m x 25.00m x 16.50m x 8.30m
 DWT/GT: 14,434t/16,938
 Cargo tank capacity: 22,760cbm
 Main engine: B&W 6S50MC (Mark 6) diesel x 1 unit
 Output: 8,090kW x 120rpm
 Speed, service: 16.9kt
 Classification: BV
 Completion: Nov. 11, 2008

**KINUGASA MARU**

Owner: Wing Maritime Service Corporation
 Builder: Niigata Shipbuilding & Repair, Inc.
 Hull No.: 0032
 Ship type: Harbour tug
 L (o.a.) x B x D x d (ext.): 37.2m x 9.8m x 4.4m x 3.2m
 GT: 252
 Main engine: Niigata Power System 6L28HX (4000ps) diesel x 2 units
 Speed: 15.0kt
 Classification: JG
 Completion: Jan. 13, 2009

**LAKE DAHLIA**

Owner: Triton Navigation B.V.
 Builder: Sanoyas Hishino Meisho Corp.
 Hull No.: 1274
 Ship type: Bulk carrier
 L (o.a.) x B x D x d: 225.00m x 32.24m x 19.90m x 14.379m
 DWT/GT: 78,802mt/41,662
 Cargo hold capacity: 91,188m³ (Grain)
 Main engine: MAN B&W 7S50MC-C diesel x 1 unit
 MCR: 9,560kW
 Speed, service: about 14.5kt at 15% sea margin
 Classification: NK
 Completion: Jan. 21, 2009

**LR2 POSEIDON**

Owner: Heroic Crux Inc.
 Builder: Sasebo Heavy Industries Co., Ltd.
 Hull No.: 753
 Ship type: Product tanker
 L (o.a.) x B x D x d: 243.8m x 42.0m x 21.5m x 15.62m
 DWT/GT: 115,273/59,172
 Main engine: Mitsui MAN B&W 6S60MC-C diesel x 1 unit
 MCR: 13,560 kW
 Speed, service: 15.1kt
 Classification: ABS
 Completion: Feb. 2, 2009

**UNITED JOURNEY**

Builder: Tsuneishi Holdings Corporation
 Hull No.: 1413
 Ship type: Bulk carrier
 L (o.a.) x B x D x d (ext.): 228.99m x 32.260m x 20.030m x 14.429m
 DWT/GT: 82,580t/43,152
 Main engine: MITSUI MAN B&W 7S50MC-C diesel x 1 unit
 Speed, service: 14.5kt
 Classification: NK
 Completion: Mar. 9, 2009

