



Kawasaki's newly developed large bulk carrier debuts



Kawasaki Shipbuilding Corporation has completed the 182,577DWT bulk carrier, CAPE CANARY (HN: 1634), for "K" Line Bulk Shipping (UK) Limited at the Sakaiide Shipyard. The vessel is the first of the large bulk carrier series newly developed by Kawasaki and has a maximum cargo loading capacity within the ship size permitted entering the Port of Dunkerque.

The CAPE CANARY adopts the Common Structural Rule (CSR) of the hull structural strength required for bulk carriers for securing the increased safety of the vessel. The Performance Standard for Protective Coatings (PSPC) is also applied for the improvement of quality of coatings, which provides preventive measures against corrosion of ballast water tanks.

Total energy saving of the vessel is achieved by installing a fuel-saving main diesel engine combined with the highly efficient propeller, Kawasaki SDS-F (Semi-Duct System with contra Fins), and Kawasaki RBS-F (Rudder Bulb System with Fins). With the increased propulsion efficiency, the fuel consumption of the main engine is dras-

tically decreased.

Fuel oil tanks are double hull construction, and deck machinery is directly operated by electric power dispensing with hydraulic oil. Therefore, possibility of accidental marine pollution is decreased in the event of collision or damage.

Principal particulars

Length, o.a.:	292.00m
Length, b.p.:	288.00m
Breadth, mld.:	45.00m
Depth, mld.:	24.70m
Draught, mld.:	18.20m (full load, summer)
DWT/GT:	182,577t/93,235
Main engine:	Kawasaki-MAN B&W 6S70MC-C (Mk7) diesel x 1 unit
MCR:	17,780kW x 87rpm
Speed, service:	about 15.3kt
Complement:	28
Classification:	NK
Delivery:	Nov. 10, 2009



For further information please contact:

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

JAPAN SHIP EXPORTERS' ASSOCIATION

2-2, Toranomon 3-chome, Minato-ku, Tokyo 105-0001 Tel: (03) 5425-9671 Fax: (03) 5425-9674 E-Mail: postmaster@jsea.or.jp

IHIMU completes 499GT coastal chemical tanker, HOUWA-MARU

IHI Marine United Inc. (IHIMU) has delivered the 499 gross tonnage type coastal chemical tanker, HOUWA-MARU, to the Japanese ship owner. The tanker is equipped with the electric motor driven propulsion system using IHIMU's proprietary technology CRP (contra-rotating propeller).

Based on superior shipbuilding technology gained through many years of experience, IHIMU has de-

veloped the most efficient electric motor driven system combined with CRP and the efficient hull form. This system is competitive with fuel oil propulsion, contributing to the environmental protection with reduction of NO_x and CO₂ emissions.

The HOUWA-MARU has reliable and flexible operation as the CRP is driven with two independent motors. Should one of the propulsion systems or motor be damaged or fail acciden-

tally, the other propulsion system will be sufficient to maintain the ship's operation. Since the CRP electric motor system is free from the barred range of the diesel engine, ship maneuver in a port is facilitated. Depending on electric demand for ship's operation (normal running, loading/unloading, drifting, etc.), the ship crew can select the number of the running diesel generators, which will further reduce fuel consumption.

Principal particulars

Main Contractor: IHI Marine United Inc.

Shipbuilder: Hongawara Ship Yard Co., Ltd.

Ship Owner: Shokuyu Tanker Co., Ltd./Japan Railway Construction, Transport and Technology Agency

L (o.a.) x B x D: 64.90m x 10.00m x 4.50m

DWT/GT: abt. 1,246t/498

Main engine: Electric motors x 2
(Rated: 260kW x 2)

Speed, service: 11.0kt

Completion: Oct. 16, 2009



MHI completes advanced RO/RO type vehicle carrier, QUEEN SAPPHIRE

Mitsubishi Heavy Industries, Ltd. (MHI) has completed construction of a roll-on/roll-off type vehicle carrier, QUEEN SAPPHIRE, with a car carrying capacity of approximately 6,400 units in passenger car equivalents for Clio Marine Inc. at the Nagasaki Shipyard Machinery Works.

The QUEEN SAPPHIRE is the most advanced car carrier featuring the slim hull and streamlined superstructure, energy-saving and marine environmental preservation measures, etc.

The carrier adopts a very slim design for the hull below the water line together with the streamlined superstructures above the upper deck, and these design considerations contribute to reduction of both wave resistance and wind pressure, and this results in energy saving.

Every car deck can accommodate

high-roof vehicles. The jumping slopes are introduced to directly connect upper decks with lower decks to facilitate car-handling work.

Principal particulars

L (b.p.) x B x D: 192.00m x 32.26m x 34.52m

GT: 60,148

Car carrying capacity:

approximately 6,400 passenger cars (RT Type)

Main engine: Mitsubishi-UE 7UEC60LSII (P/U) diesel x 1 unit

Speed, service: abt. 20.65kt

Complement: 30

Classification: NK NS*(RORO EQ C V), MNS*(MO)

Completion: Sept. 30, 2009



MES completes KEN WAVE, 56,000DWT bulk carrier

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) delivered the 56,000DWT bulk carrier, KEN WAVE (HN: 1764), to NORDEN Shipping (Singapore) Pte. Ltd., Singapore at its Chiba Works on Nov. 19, 2009. The vessel is a Handymax type bulk carrier of 56,000DWT with a huge cargo hold capacity over 70,000m³. This series is known as Mitsui's 56 worldwide and is highly appreciated in the market. More than 150 vessels of this series have been ordered from MES.

The vessel is designed in accordance with the IACS Common Structural Rules. Therefore, the structural safety and operational flexibility are improved. The "Mitsui's 56" series has good manageable size of 56,000DWT at the summer draft, length and draft for accessibility to main ports worldwide, and low fuel oil consumption based on good propulsive performance.

The vessel has five cargo holds and four cranes for handling cargoes. It is designed to have adequate strength of hatch top of cargo holds and to be suitable for efficient handling of various types of cargoes. The sizes of the

hatch openings are the largest for this type in terms of both length and width. Each cargo hold has a sufficient clear length to load long pipes. The cargo holds are well strengthened to load heavy cargo such as hot coils, etc. Outfitting arrangements on the upper deck and strength of the hatch covers are well designed to load packaged lumber.

The main engine is the Mitsui-MAN B&W 6S50MC-C diesel engine. This light, compact and high output engine complies with MARPOL NO_x restrictions for exhaust gas. Adequate power margin is provided for a high degree of flexibility (at normal service output = 75% maximum continuous output), and the lowest fuel oil consumption will be realized by optimum matching at normal service output.

Ballast water can be changed

during navigation for protection of the marine environment. Generator engines also comply with MARPOL NO_x restrictions for exhaust gas.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d:	189.99m x 182.00m x 32.25m x 18.10m x 12.69m
DWT/GT:	56,104t/31,759
Main engine:	Mitsui-MAN B&W 6S50MC-C diesel x 1 unit
MCR:	9,070kW x 125.0rpm
Speed, service:	abt. 14.5kt
Complement:	26
Classification:	NK
Delivery:	Nov. 19, 2009



Imabari completes VLCC, TSURUGA

Imabari Shipbuilding Co., Ltd. completed construction of the TSURUGA (HN: 8063), a 309,960 DWT crude oil carrier at the Saijo Shipyard on Oct. 20, 2009.

The vessel has the maximum size to pass through the Strait of Malacca. Double hull construction adopted for

the vessel will protect the fuel oil tanks from accidental damage. An energy-saving device is installed at the leading edge of the rudder. These considerations will contribute to environment-friendly and economical ship operation.

The vessel is equipped with a vapor emission control system based on the USCG regulations and mooring equipment complying with OCIMF's requirements.

Three cargo pumps are installed, and cross-connection

arrangements in the cargo oil pump room enable any pump to pull oil from and deliver to any line.

The vessel is designed to increase safety and reliability and has Class NK notation of PS-DA and PS-FA.

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/G/T:	309,960t/160,068
Loading capacity:	350,583m ³
Main engine:	Mitsui-MAN B&W 8S80MC-C diesel x 1 unit
MCR:	27,960kW x 76.0rpm
Speed, service:	15.55kt
Complement:	34
Classification:	NK
Delivery:	Oct. 20, 2009



NAMURA completes Dunkerquemax type bulk carrier, GRY BULKER

Namura Shipbuilding Co., Ltd. delivered the GRY BULKER, a 174,788 DWT bulk carrier, to Lauritzen Bulkcarriers A/S at the Imari Shipyard & Works on Nov. 5, 2009. This is the Namura's first vessel complying with the common structural rules for bulk carriers (CSR-B). The principal dimensions of the vessel satisfy the restrictions of the Port of Dunkerque.

Namura has drastically reviewed and modified the specifications by improving those of the existing 170,000DWT type bulk carriers. For instance, the accommodation facilities have upgraded to provide the crew with more comfortable life.

The main engine is the MAN B&W6S70MC-C type with an Alpha lubricating system for saving cylinder oil. The Namura flow control fin (NCF) and high-efficiency propeller are equipped for improving propulsion performance and saving fuel oil.

Machinery in the engine room is

automated based on the Class NK 'M0,' and an air type stern tube-sealing device is applied to prevent oil leakage. Electric motor driven hatch covers are also used for pre-

vention of oil pollution. Anti-abrasion paint and 5-year life tin-free type antifouling paint are applied to all cargo holds and the hull below the waterline, respectively. An elevator is installed for traveling between accommodation quarters and the engine room. A vacuum sewage unit combined with a sewage treatment system is installed. The flow-through method is adopted to exchange ballast water for easy operation.

Other special provisions are given to safety, environment protection, and reduction of labor and operation costs,



while complying with the recent international regulations.

Principal particulars

L (o.a.) x L (b.p.) x B (mld) x D (mld) x d (mld): 289.98m x 280.00m x 45.00m x 24.70m x 18.00m

DWT/GT: 174,788t/91,508

Main engine: MAN B&W 6S70MC-C (Mk 7) diesel x 1 unit

MCO: 16,860kW x 91.0min⁻¹

Speed, service: 15.0kt

Complement: 25

Classification: NK

Flag: Republic of Panama

Completion: Nov. 5, 2009

Universal completes 207,000DWT bulk carrier, SHIN KORYU

Universal Shipbuilding Corporation delivered the 207,000 DWT bulk carrier, SHIN KORYU, to Picer Marine S.A. at the Tsu Shipyard on Oct. 23, 2009.

The vessel is designed to carry bulk coal and iron ore between Asia and Australia more efficiently and to have

flexibility for port restrictions. This is the 12th vessel of the new design series of Newcastlemax that is the most efficient for the shallow draft and has a large cargo hold capacity.

In addition, the vessel employs double side skin construction for cargo holds in order to improve cargo handling and reduce

flooding risk due to shipside damage. In spite of having cargo holds bound by a double side skin, the vessel has the same cargo capacity as previous single skinned Newcastlemax series.

The vessel is equipped with high propulsion

efficiency and energy saving devices, SSD (Super Stream Duct) and Surf-Bulb (Rudder Fin with Bulb) before and behind the propeller, and the bow is shaped with the new Ax-bow form, which can decrease the wave resistance at sea. Deck machinery such as windlasses, mooring winches, and hatch covers are driven by the electric-motor system that is environment-friendly.

Principal particulars

L (o.a.) x L (b.q.) x B x D x d: 299.7m x 290.2m x 50m x 25.0m x 18.2m

DWT/GT: 207,991t/106,367

Loading capacity: 218,790m³

Main engine: MAN B&W 6S70MC-C diesel x 1 unit

Speed: 16.3kt

Complement: 25

Classification: NK

Completion: Oct. 23, 2009



Sanoyas completes 4,350,000cf woodchip carrier, CROSSANDRA

Sanoyas Hishino Meisho Corp. has completed construction of the 4,350,000cf woodchip carrier, CROSSANDRA, for the delivery to Cygnet Bulk Carriers S.A. (Panama) at the Mizushima Works and Shipyard on Nov. 27, 2009. The vessel is the 4th of the series of the newly developed SANoyas 4.35 million cubic feet (approximately 123,000m³) type woodchip carriers, making it one of the largest cargo hold capacities in the world.

The CROSSANDRA is the flush decker type with aft engine room and accommodation house. The cargo space is divided into six holds, each structure of which is designed and arranged for efficient loading and unloading of woodchips. The vessel has greater depth than that of the conventional bulk carrier of the same deadweight class due to its design to carry low density cargo like woodchips.

For increased propulsion efficiency, the vessel is equipped with a low-speed and long-stroke main engine combined with a high-efficiency pro-

PELLER. Moreover, it employs SANoyas developed energy saving device "STF" (Sanoyas-Tandem-Fin (patent): max. 6% energy saving and excellent cost performance with simple structure) on the stern shell. These devices contribute to the reduction of CO₂ emissions.

A 975t/h chip unloader, three deck cranes and four hoppers are installed between cargo hatches. The main belt conveyor is laid fore-and-aft over the main deck, and a shuttle conveyor is equipped on the bow to unload woodchips from the ship to a shore facility. Cargo handling equipment is designed for rapid and safe unloading work. Cargo hatch covers are the folding type driven by the electro-hydraulic system.

Principal particulars
Owner: Cygnet Bulk

Carriers S.A.
Hull No.: 1269
Ship type: Woodchip carrier
L (o.a.) x L (p.p.) x B x D x d:
209.99m x 204.00m x 37.00m x
22.85m x 12.029m
DWT/GT: 64,486t/49,720
Cargo hold capacity (grain):
123,618m³ (4,365,558ft³)
Main engine MAN B&W 6S50MC-C
diesel x 1 unit
MCO: 9,480kw
Speed, service: about 14.6kt
Classification: NK
Delivery: Nov. 27, 2009



Onomichi completes 47,000DWT product tanker, EMERALD

Onomichi Dockyard Co., Ltd. has completed construction of EMERALD, a 47,000DWT product carrier, for Emerald Marine Co. Ltd. of Malta. The vessel is 182.50m long, 32.20m wide, and 18.10m deep, and has the total cargo tank capacity of 53,500m³ capable of carrying four different types of cargo liquids such as gasoline, light oil, naphtha, etc. simultaneously.

EMERALD is designed to comply

with the latest international regulations. The hull structural strength of the vessel has been developed with 3-dimensional model analysis and fatigue strength analysis to provide high reliability to endure repetitive navigation in the rough-sea season.

The vessel has many features considering environmental preservation. The double hull structure is employed for the fuel oil tank compartment to

prevent fuel oil leakage in an accident. Air pollution prevention is ensured by providing an advanced gas detecting system to avoid emission of harmful gas into the atmosphere. The main engine

uses a low-speed and long-stroke diesel engine that has superior performance of low fuel consumption.

Moreover, unattended main engine and auxiliary machinery, a fail-safe satellite navigation system, and the self-stripping system are adopted to reduce manual labor required for ship operation and improve the working environment on the board.

Principal particulars
Owner: Emerald Marine Co. Ltd.
Builder: Onomichi Dockyard Co., Ltd.
Hull No.: 546
Ship type: Product Tanker
L (o.a.) x B x D x d(ext.): 172.60m x
32.20m x 18.10m x 12.60m
DWT/GT: 47,302t/27,015
Main engine: Mitsui MAN-B&W
6S50MC Diesel x 1 unit
Speed, service: 15.3kt
Classification: BV
Completion: Nov. 16, 2009



ORIENT HOPE

Owner: Black Ship Line, S.A.
 Builder: The Hakodate Dock Co., Ltd.
 Hull No.: 829
 Ship type: Log/bulk carrier
 L (o.a.) x L(p.p.) x B x D x d: 175.53m
 x 167.00m x 29.40m x 13.70m x
 9.640m
 DWT/GT: 32,165t/19,828
 Main engine: Mitsubishi 6UEC45LSE
 diesel x 1 unit
 Output: 6,840kW (9,300 PS) x 129rpm
 Speed, service: 14.4kt
 Classification: NK
 Complement: 24
 Completion: Oct. 13, 2009

**METEOR**

Owner: New Meteor Maritie Ltd..
 Builder: Oshima Shipbuilding Co.,
 Ltd.
 Hull No.: 10552
 Ship type: Japanamax Type Bulk
 Carrier
 L (o.a.) x B x D x d: 224.99m x 32.26m
 x 20.05m x 14.526m
 DWT/GT: 82,589MT / 42,931
 Main engine: Kawasaki MAN B&W
 5S60MC-C diesel x 1 unit
 Output: 9,378 kW x 88.0 rpm
 Speed, service: 14.5kt
 Classification: NK
 Completion: Jan. 12, 2010

**MOL SPARKLE**

Owner: Toa Marine Inc.
 Builder: Naikai Zosen Corporation
 Ship type: Container carrier
 L (o.a.) x L (p.p.) x B x D x d: 199.93 m
 x 188.00 m x 32.20 m x 16.60 m x
 9.80 m
 DWT/GT: 33,100t/27,200
 Container carrying capacity:
 2,553TEU (incl. 540 reefers)
 Main engine: MAN B&W 7S70MC-C
 diesel x 1 unit
 MCR: 21,735kW x 91min-1
 Speed, max.: 22.2kt
 Classification: NK
 Completion: Nov. 30, 2009

**LOWLAND BRABO**

Owner: Sea Wealth Navigation S.A.
 Builder: Kanda Shipbuilding Co., Ltd.
 Hull No.: 502
 Ship type: General cargo ship
 L (o.a.) x B x D x d: 177.13m x 28.40m
 x 14.25m x 10.02m
 DWT/GT: 32,280t/20,238
 Main engine: Mitsubishi 6UEC52LA
 diesel x 1 unit
 Speed, service: 14.3kt
 Registration: Panama
 Classification: NK
 Completion: Jan. 13, 2010

**GLOBAL MERMAID**

Owner: Global Moon S.A.
 Builder: Shin Kurushima Dockyard
 Co., Ltd.
 Hull No.: 5588
 Ship type: Log/bulk carrier
 L (o.a.) x B x D x d: 176.83m x 28.80m
 x 14.20m x 9.826m
 DWT/GT: 33,738t/21,100
 Main engine: 6UEC52LA diesel x 1
 unit
 Speed, service: 14.3kt
 Registration: PANAMA
 Classification: NK
 Completion: Jan. 12, 2010

**EAGLE KUCHING**

Owner: AET Inc. Limited.
 Builder: Tsuneishi Holdings Corpora-
 tion
 Hull No.: 1423
 Ship type: Crude oil tanker
 L (o.a.) x B x D x d: 243.80m x 42.000m
 x 21.300m x 14.550m
 DWT/GT: 107,481t/60,379
 Main engine: Mitsui MAN-B&W
 6S60MC-C (Mk 7) diesel x 1 unit
 Service Speed: 15.6kt
 Registration: Singapore
 Classification: LR
 Completion: Oct 21, 2009

