



MHI completes module carrier, YAMATAI, equipped with Air Lubrication System



Mitsubishi Heavy Industries, Ltd. (MHI) has completed construction of YAMATAI, a module carrier with the designed module carrying capacity of 3,000 tons x 2 units, for NYK-Hinode Line, Ltd. This is the first of two sister vessels built at the Nagasaki Shipyard & Machinery Works.

The YAMATAI is the world's first vessel equipped with the Air Lubrication System (ALS) using an air blower. The air delivered to the bottom of the vessel by the blower reduces the frictional resistance of the hull surface against sea water, thus achieving about 10% energy saving including the energy required by the blower. In addition to the ALS, the module carrier adopts the optimum propeller design and the Mitsubishi-Reaction fin achieves high propulsive performance with less vibration.

The module carrier has a flush deck module area of 120m x 36m on the upper deck, which enables roll on/roll off module loading by self-moving dolly.

Principal particulars

L (b.p.) x B x D:	152.621m x 38.0m x 9.0m
Gross tonnage:	14,538
Module carrying capacity:	3,000 tons x 2 units
Main engine:	DAIHATSU 6DKM-36 x 2 units
Speed, service:	about 13.25kt
Complement:	25
Classification:	NK



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IHIMU completes 9,300TEU container vessel, NYK ADONIS

IHI Marine United Inc. has delivered the 9,300 TEU container vessel, NYK ADONIS (HN: 3278), to ASSAM Shipholdings S.A. at its Kure Shipyard. The NYK ADONIS is one of the largest container vessels ever built in Japan and is equipped with various and most-advanced eco-friendly devices.

For the sake of superior economical operation on container trades, an electronically controlled main engine (Flex Engine) is installed on this vessel. By adjusting fuel injection and exhaust valves at suitable timing, this engine can control combustion conditions regardless of the loaded condi-

tion. These mechanisms enhance the saving of fuel oil consumption and the reduction of emissions.

In order to achieve good propulsion performance, economical operation and good maneuverability, IHIMU designed this vessel with proprietary sophisticated technology such as CFD analysis, 3D-FEM ship-model analysis, walk-through simulation and apparatus installation simulation utilizing the CIM system "Ajisai" which IHIMU developed.

Principal particulars

L(o.a.) x B x D:	332.15m x 45.20m x 26.80m
DWT/GT:	about 89,700t/105,644
Loading capacity:	9,300 TEUs
Main engine:	DU-WARTSILA 11RT-flex96C diesel x 1 unit
MCR:	58,400kW x 99.5rpm
Classification:	NK
Completion:	Mar. 30, 2010



Kawasaki completes 3rd 180,000DWT bulker CAPE YAMABUKI

Kawasaki Shipbuilding Corporation has completed the 182,534DWT bulk carrier, CAPE YAMABUKI (HN: 1633), at the Sakaide Shipyard. The vessel is the third of 180,000DWT series newly developed by Kawasaki and has a maximized cargo loading capacity within the ship size permitted to enter the Port of Dunkerque, France.

The CAPE CANARY adopts the Common Structural Rule (CSR) of the hull structural strength required for bulk carriers to increase safety of the vessel.

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

The fuel oil tanks are double hull construction, and the deck machinery is directly operated by electric power

dispensing with hydraulic oil. Therefore, the possibility of accidental marine pollution is decreased in the event of collision or damage.

The Performance Standard for Protective Coatings (PSPC) is also applied for the improvement of quality of coatings, which provides preventive measures against corrosion of the ballast water tanks.

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:	182,534t/92,977
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:	Feb. 26, 2010



MES completes 177,000DWT bulk carrier, LEO FELICITY

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) completed 177,000DWT type bulk carrier, LEO FELICITY (HN: 1711), at its Chiba Works and delivered the vessel to Lepta Shipping Co., Ltd., Liberia, on Feb. 25, 2010.

This is the third example of the newly designed Capesize bulk carrier of Dunkerque-max type. The design enables effective cargo handling, easy maintenance of cargo holds and structural safety by adopting double-hulled cargo holds. The ship has a cargo hold capacity equivalent to single-hulled ships of the same displacement by designing the structure efficiently, but in compliance with SOLAS double-hull requirements.

The loading flexibility and enhanced structural safety are achieved by design according to the requirements of IACS URS25. Access based on SOLAS requirements is provided, which enables safe and efficient inspections of cargo holds and ballast tanks. The ship has a forecastle, and

the new requirements for reserve buoyancy are applied to improve the safety of the ship.

Two sets each of H.F.O. service tanks, H.F.O. settling tanks and D.O. tanks are provided for easy changeover from/to Low Sulfur Oil in SO_x Emission Control Areas (SECAs). The main engine of the ship is MITSUI-MAN B&W 6S70MC-C diesel engine, which satisfies IMO Environment standards for exhaust gas and achieves massive improvement of fuel saving by optimum matching at normal service output. The electronically controlled cylinder oil supply system of the ship contributes to the saving of operational costs.

Ballasting and de-ballasting work can be efficiently performed by sepa-



rate topside tanks and bottom side tanks.

Principal Particulars

L (o.a.) x L (b.p.) x B x D x d:	292.00m x 282.00m x 44.98m x 24.70m
DWT/GT:	178,564t/92,246
Main engine:	MITSUI-MAN B&W 6S70MC-C diesel x 1 unit
Max. Continuous Output:	18,660kW x 91rpm
Speed:	15.5kt
Complement:	25
Classification:	NK
Delivery:	Feb. 25, 2010

Universal completes 300,000DWT Unimax ore carrier, OITA MARU



The 300,000DWT-type ore carrier, OITA MARU, was delivered to Kemp Maritime S. A. at the Tsu Shipyard of Universal Shipbuilding Corporation on Mar. 19, 2010. The OITA MARU is the 11th vessel of a new design series of the Unimax ore carrier, dedicated to transport of iron ore from Brazil to Japan.

Universal's Unimax Ore Carrier is optimized to have the largest capacity of the 300,000DWT class to enter major iron ore loading ports in West-

ern Australia, with the hull form most suitable for deep water ports in Brazil, the largest iron ore shipping country.

Adequate hull strength is provided to be applicable to various loading and unloading ports, and every cargo hold is equipped with the world's largest single panel hatch cover to facilitate cargo handling.

This vessel is equipped with a ME electronic control main engine which enables the combustion conditions to

reduce fuel oil consumption and emissions at any load by adjusting the fuel injection and exhaust valves electronically.

With the energy saving devices of the Surf bulb, SSD and Ax-bow developed by Universal, the vessel could dramatically improve propulsive efficiency, decreasing fuel consumption compared with the conventional large ore carrier.

Universal will flexibly and actively respond to the diversifying needs in transport of raw materials for steel, amidst expected future expansion in marine transport triggered by global increase in demand for iron ore.

Principal particulars

L (o.a.) x B x D x d:	327.0m x 55.00m x 29.25m x 21.40m
DWT/GT:	297,736 t / 151,094
Main engine:	Hitachi MAN-B&W 6S80ME-C diesel x 1 unit
Speed, service:	14.5kt
Classification:	NK

Namura completes ore carrier, SAKURA

Namura Shipbuilding Co., Ltd. delivered the SAKURA, a 229,069 DWT ore carrier, to Caelus Shipping Pte. Ltd. at its Imari Shipyard & Works on Feb. 24, 2010. The vessel is the 9th 230,000DWT type ore carrier built by Namura, and the strengthened hull offers flexible cargo loading of iron ore.

The vessel has five cargo holds, and nine wide-type hatches with one panel double-skin (box) type side-rolling hatch cover. The double-hull cargo holds are suitably designed for the handling and transport of iron ore. Fatigue crack arrester is applied to the hatch corners between the fore parts of Nos. 3 and 8 hatches.

The engine room machinery is automated based on the M0 concept, and the MITSUBISHI 6UEC85LSII type main engine is equipped with an SIP

lubricating system for saving lubricating oil. The central fresh water-cooling system is applied for main engine and auxiliary machinery.

Special attention is given to safety, environmental protection, and reduction of labour and operation costs.

Principal Particulars
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

18.10m
DWT/GT: 229,069t/113,928
Main Engine: Mitsubishi
6UEC85LSII diesel x 1 unit
M.C.R.: 22,432kW x 76.0rpm
Speed, service: 15.1kt
Complement: 25
Classification: NK
Flag: Panama



Sanoyas completes PANAMAX bulk carrier KM TOKYO

The PANAMAX bulk carrier KM TOKYO (HN: 1302) ordered by Southern Route Maritime, S.A. constructed at the Mizushima Works and Shipyard of Sanoyas Hishino Meisho Corp. was delivered on March 19, 2010.

The vessel is the 13th of a series of the newly developed 83,000DWT type PANAMAX bulk carriers, featuring the largest deadweight and cargo hold capacity in the world for the PANAMAX bulk carrier. In addition, this is the first vessel applying Common Structural Rules and Performance Standard for Protective Coatings in compliance with the requirements of the International Association of Clas-

sification Societies and International Maritime Organization, respectively.

For improvement of the propulsion efficiency, the vessel is equipped with a low-speed & long-stroke main engine combined with a high-efficiency propeller and the SANOYAS energy-saving device called STF (Sanoyas-Tandem-Fin (patent); max. 6% energy saving) on the stern shell, which also contribute to the reduction of CO₂ emissions.

For efficient cargo handling, cargo hatches are widened as much as possible. Dedicated fresh water tanks are provided for storing hold washing water generated by a large capacity

type fresh water generator. In addition, a special fuel oil heating system is provided for the fuel oil storage tanks to avoid cargo damage by overheating and to reduce steam consumption.

Considering protection of the environment, various countermeasures such as fuel oil tanks with double hull structures, light color and tar-free coating for ballast tanks, holding tanks for accommodation of discharges and dirty hold bilges, and an independent bilge segregation system for engine room, are incorporated.

Principal particulars
L (o.a.) x L (b.p.) x B x D x d: 229.00m
x 224.00m x 32.24m x 20.20m x
14.598m
DWT/GT: 83,483t/44,349
Cargo hold capacity: 96,121m³ (grain)
Main engine: MAN B&W 6S60MC-C
diesel x 1 unit
MCR: 10,740kW
Speed, service: about 14.0kt (at c.s.o.
with 15% sea margin)
Classification: NK
Complement: 25



Koyo completes 180,253DWT bulk carrier, FRONTIER AMBITION for KY SHIPPING

Koyo Dockyard Co., Ltd. of the Imabari Group delivered FRONTIER AMBITION, 180,253MT D/W type bulk carrier, on Mar. 16, 2010 to KY Shipping (Panama) S.A. The vessel is the 23rd of the bulk carrier series delivered by Koyo Dockyard.

The FRONTIER AMBITION is a Dunkerquemax type bulk carrier and has nine cargo holds with topside tanks and hopper bottom tanks, which are connected by trunks. The hatch covers are the side sliding type driven by electro-hydraulic motors and chains.

The main engine is a low-speed, super long stroke, 2-cycle diesel engine. The highly efficient large diameter propeller and the hybrid fin are applied to save fuel oil consumption.



Principal particulars	MCR:	18,630kW x 91.0rpm
L (o.a.) x B x D x d: 288.93m x 45.00m x 24.70m x 18.15m	Speed, service:	15.35kt
DWT/GT: 180,253t / 90,092	Complement:	25
Main engine: MITSUI MAN B&W 6S70MC-C diesel x 1 unit	Classification:	NK
	Flag:	Panama
	Completion:	Mar. 16, 2010

JSEA participates in Posidonia 2010



The Japan Ship Exporters' Association (JSEA) participated in the 22nd International Shipping Exhibition Posidonia 2010 held at the Hellenikon Exhibition Centre in Helleniko, Greece, for five days from June 7 to 11. Posidonia 2010 attracted 1,858 companies and organizations from 87 countries, and was visited by over 17,385 people.

At the opening ceremony held on June 7, Mrs. Louka T. Katseli, the Minister of Economy, Competitiveness and Shipping gave the opening address. After the ceremony, the Minister of Economy, Competitiveness and Shipping and honorable guests from related circles visited exhibition stands. Mr. Takanori Kitamura, Japanese Ambassador to Greece, Mr. Masamoto Tazaki, JSEA president and Mr. Sho Minami, JSEA vice-president met the Minister at the Japanese stand.

On June 9, Japanese Ambassador and Mrs. Kitamura, and JSEA president and Mrs. Tazaki co-sponsored a reception at the Athenaeum Inter-Continental Hotel with about 870 guests including government officials and oth-



From left of the front row are Mr. Minami, JSEA Vice President; Mr. Tazaki, JSEA President; Mrs. Louka Katseli, Minister of Economic, Competitiveness and Shipping; and Mr. Kitamura, Japanese Ambassador to Greece.

ers concerned with the shipping and shipbuilding industries. The JSEA consisting of 12 Japanese shipbuilders participated with the financial support of The Nippon Foundation and in cooperation with The Shipbuilders' Association of Japan. JSEA and the Japan Marine Equipment Association (JSMEA) contributed the national exhibition stand where Japanese shipbuilding technology was presented.

Shipbuilding features of each shipbuilder were demonstrated, and expert attendants from the shipbuilders received visitors to provide further explanations. PR videotapes of 12 firms were digitized for a LCD system with the support of the Nippon Foundation. This collaborative exhibition procedure was a great success in demonstrating the whole shipbuilding industry.

IKAN JEPUN

Owner: Sekihyo Line (Panama), S.A.
 Builder: Kanda Shipbuilding Co., Ltd.
 Hull No.: 504
 Ship type: General cargo ship
 L(o.a.) x B x D x d (ext.): 177.13m x
 28.40m x 14.25m x 10.02m
 DWT/GT: 32,297.61t/20,236
 Main engine: Mitsubishi-6UEC52LA
 diesel x 1 unit
 Speed, service: 14.3kt
 Registration: Panama
 Classification: NK
 Completion: Feb. 26, 2010

**VIJAYANAGAR**

Owner: TSC1521 SHIPPING S.A.
 Builder: Tsuneishi Holdings Corpora-
 tion
 Hull No.: 1521
 Ship type: Kamsarmax bulk carrier
 L (o.a.) x B x D x d (ext.): 228.99m x
 32.26m x 20.05m x 14.429m
 DWT/GT: 82,167mt/43,012
 Main engine: Mitsui MAN-B&W
 6S60MC-C diesel x 1 unit
 MCO: 9,710kW x 97.4rpm
 Speed, service: 14.5kt
 Registration: Cayman Island
 Classification: NK
 Completion: Feb. 26, 2010

**GINGA BOBCAT**

Owner: Carolina Navigation S.A.
 Builder: Shin Kurushima Dockyard
 Co., Ltd.
 Hull No.: 5562
 Ship type: Chemical tanker
 L(o.a.) x B x D x d: 159.98m x 154.00m
 x 26.80m x 14.20m x 9.00/10.05m
 DWT/GT: 26,073t/16,222
 Main engine: Kobe Diesel 6UEC52LA
 diesel x 1 unit
 Speed, service: 15.5kt
 Classification: NK
 Completion: Mar. 18, 2010

**SANKO LIBRA**

Owner: Libra Tankship Limited
 Builder: Onomichi Dockyard Co., Ltd.
 Ship type: Product Tanker
 L (o.a.) x B x D: 182.50m x 32.20m x
 18.10m
 DWT/GT: 47,378t/26916
 Main engine: Mitsui MAN-B&W
 6S50MC diesel x 1 unit
 Speed, Service: 15.3kt
 Registration: Monrovia, Liberia
 Classification: ABS
 Completion: Feb. 3, 2010

**SUNSHINE BLISS**

Owner: "K" Line Pte Ltd
 Builder: Oshima Shipbuilding Co.,
 Ltd.
 Hull No.: 10534
 Ship type: Bulk carrier
 L(o.a.) x B x D x d: 225.00m x 32.26m
 x 19.39m x 14.094m
 DWT/GT: 76,441t/40070
 Main engine: Kawasaki MAN B&W
 5S60MC-C diesel x 1 unit
 Speed, service: 14.5kt
 Registration: Singapore
 Classification: NK
 Completion: Feb. 23, 2010

**EAGLE MILAN**

Owner: Ocean Transit Carrier S.A.
 Builder: Naikai Zosen Corporation
 Ship type: Product tanker
 L(o.a.) x B x D x d: 179.90m x 172.00m
 x 32.20m x 19.25m x 11.65m
 DWT/GT: 46,549t/28,231
 Cargo hold capacity: about 54,800m³
 Main engine: Hitachi MAN B&W
 6S50MC-C diesel x 1 unit
 Output: 8,530kW x 123min-1
 Speed, service: about 15.7kt
 Classification: NK
 Completion: Mar. 31, 2010
 Complement: 25

