



Sanoyas completes Panamax bulk carrier HANJIN HIROSE



Sanoyas Mizushima Works and Shipyard delivered the Panamax bulk carrier, HANJIN HIROSE (HN: 1300) to its owner CEDAR VALLEY S.A. on October 25, 2011. The vessel conforms to Common Structural Rules (CSR) by International Association of Classification Societies.

The HANJIN HIROSE is the 26th of the series of the SANOYAS-developed 83,000DWT type Panamax bulk carriers.

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

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 fuel oil storage tanks to avoid cargo damage by overheating and save the steam consumption.

With a view to protection of environment, various facilities such as fuel oil tanks of double hull structures, holding tank for accommodation discharges and dirty hold bilge, independent bilge segregation system for engine room are installed.

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: 83,494t/44,372

Cargo hold capacity: 96,121m³ (Grain)
Main engine MAN B&W 6S60MC-C diesel x 1 unit
MCO: 10,740kW
Speed, service About 14.0kt (at C.S.O. with 15% sea margin)
Classification: NK
Complement 25 persons
Registry Panama
Delivery: October 25, 2011

Sanoyas shifts to holding company

Sanoyas Holdings Corporation (Sanoyas HD) was established in October last year and spun off its shipbuilding and three on-land operations on January 4, 2012.

Its corporate structure has been reorganized to place four core businesses under Sanoyas HD. With 2011 marking its 100th year of operations, the company is set to make large-scale organizational revisions in an effort to bring about its next stage of development.

Sanoyas Shipbuilding Corporation inaugurates as a pure shipbuilding play company. The locations of Head office, Sales department and Shipyard are as follows.

Head office

3-3-23 Nakanoshima, Kita-ku, Osaka 530-6109, Japan

Sales department

1-6-12 Toranomon, Minato-ku, Tokyo 105-0001, Japan

Mizushima Shipyard

2767-21 Shionasu, Kojima, Kurashiki City, Okayama Pref. 711-8588, Japan (below)



Company logo



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Kawasaki completes new LNG carrier AKEBONO MARU

Kawasaki Heavy Industries, Ltd. delivered the LNG carrier AKEBONO MARU (HN: 1682) to Shinwa Chemical Tanker Co., Ltd. of Japan on October 31, 2011. The 99.37m vessel is the first in Kawasaki's new line of 3,500m³-class domestic LNG carriers.

Demonstrating Kawasaki's long-accumulated expertise in liquefied gas carriers, the vessel features cryogenic pressure tanks and is intended mainly for domestic use. Kawasaki has built four domestic LNG carriers to date with a tank capacity of 2,500m³, and increased the capacity of this particular vessel to 3,500m³.

The vessel is equipped with two cryogenic pressure tanks, capable of absorbing low-temperature contraction, for loading natural gas liquefied at -163°C. The cylindrical tanks are arranged horizontally in cargo holds independent of the hull.

The tanks are insulated from external heat with the Kawasaki Panel System, which features a proprietary insulation structure. The tanks are also designed to sufficiently withstand pressure to contain boil-off gas (BOG)



from the LNG.

The cargo tanks are protected against collisions and grounding accidents by a double hull structure. As with larger LNG carriers, the cargo tanks also feature covers that protect them against external shocks and provide thermal insulation from ambient temperatures.

Unlike conventional large LNG carriers, AKEBONO MARU employs an oil-powered diesel engine as its main engine, since it does not need to consume BOG as fuel during voyages.

These engines are usually used for domestic vessels.

Principal particulars

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|----------------------------------|---|
| L (o.a.) x L (b.p.) x B x D x d: | 99.37m x 93.00m x 17.20m x 7.80m x 4.60m |
| DWT/GT: | 4,505t/2,528 |
| Cargo tank capacity: | 3,556m ³ (-163°C, 100%) |
| Main engine: | Hanshin Diesel LH46L diesel x 1 unit |
| MCR: | 2,942kW x 200rpm |
| Speed, service: | about 13.0 kt |
| Complement: | 15 |
| Classification: | NK |

MHI completes 83,000m³ type LPG carrier G. SYMPHONY

Mitsubishi Heavy Industries, Ltd. (MHI) completed construction of G. SYMPHONY (HN:2275), an LPG carrier with a tank capacity of 83,275m³, and delivered the vessel to S&Y SHIP-PING S.A. at the Nagasaki Shipyard & Machinery Works on November 30, 2011. The vessel is the tenth 83,000m³

LPGC built by MHI and was developed basically following the design concept of the MHI 78,000m³ LPGC series of 38 delivered vessels.

The vessel is designed as a straight LPG carrier to carry propane and butane. The sophisticated hull form, optimum design of propeller and Mitsub-

ishi-Reaction fin help achieve high propulsive performance with less vibration.

Main dimensions and cargo equipment are designed with consideration for compatibility with worldwide terminals. A booster cargo pump and a cargo heater/vaporizer are equipped to cope with various shore facilities.

Principal Particulars

| | |
|----------------------------------|--|
| L (o.a.) x L (b.p.) x B x D x d: | 230.0m x 219.0m x 36.6m x 21.65m x 11.628m |
| Gross tonnage: | 47,990 |
| Cargo tank capacity: | 83,275m ³ |
| Main engine: | mitsubishi 7UEC60LSII diesel x 1 unit |
| Output: | 13,700kW x 104rpm |
| Speed, service: | 17.0kt |
| Classification: | NK |
| Completion: | November 30, 2011 |



Universal completes 297,000 DWT crude oil tanker FPMC C MELODY

Universal Shipbuilding Corporation delivered the FPMC C MELODY, a 297,000 DWT crude oil tanker, at the Ariake Shipyard on December 22, 2011. The vessel is the 31st of the new version VLCC design series, which has been popular and a long-term seller series since the days of Hitachi Zosen Corporation, one of the predecessors of Universal Shipbuilding Corporation.

The vessel is designed to have flexibility for worldwide trade.

The FPMC C MELODY is equipped with SSD (Super Stream Duct) in front of the propeller. SSD can improve propulsive efficiency and reduce fuel consumption compared with the conventional tankers.

An inboard W.B.T. is arranged to provide a good balance of hull strength, reduction of hull stress and



minimum deadweight loss in loaded conditions.

Double side skin construction is applied to fuel oil tanks in order to reduce the oil leakage risk due to side and bottom damages.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d: 330.0m x 316.0m x 60m x 29.7m x 21.5m

DWT/GT: 297,229t/156,975
 Loading capacity: 340,167m³
 Main engine: MAN B&W 7S80MC-C diesel x 1 unit
 Speed, service: 16.0kt
 Complement: 28
 Classification: BV/CR
 Completion: December 22, 2011

Namura completes 250,000DWT-type ore carrier WUGANG INNOVATION

Namura Shipbuilding Co., Ltd. delivered the WUGANG INNOVATION, a 250,868 DWT ore carrier, to Nippon Yusen Kabushiki Kaisha at its Imari Shipyard & Works on October 19, 2011.

This is the fourth vessel of 250,000 DWT type ore carriers. Their principal dimensions satisfy the restrictions of Port Hedland, Port Walcott and Dampier, which are the three major ports in Western Australia. Therefore, this type is called WOZMAX (Western Australia [Aussie: OZ] Max). Moreover, their mooring arrangement satisfies the requirements of Ponta Da Madeira in Brazil.

Namura has drastically reviewed and improved the specifications of the existing 230,000DWT type ore carrier. For instance, the accommodation facilities have been upgraded to provide the crew with greater living comfort.

For improving propulsion performance and saving fuel oil, the Namura flow Control Fin (NCF) and high-efficiency propeller are equipped. Low-friction type tin-free A/F paint is applied to underwater hull.

The main engine is the MAN B&W 7S80MC-C (Mark 7) type and machinery in the engine room is automated based on the NK M0 concept. A central fresh water-cooling system is ap-

plied to the main engine and auxiliary machinery for easier maintenance.

Other special provisions, such as Means of Access for inspection, double sided skin construction applied to fuel oil tanks and an air seal type stern tube sealing device, are applied to safety, environmental protection, and reduction of labor and operation costs, while complying with the recent international regulations.

A vacuum sewage unit combined with a sewage treatment system is installed. The flow-through method is adopted to exchange ballast water for easier operation.

An elevator is installed for traveling between the accommodation quarters and the engine room.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d:
 329.95m x 321.00m x 57.00m x 25.10m x 18.00m
 DWT/GT: 250,868t/132,466
 Main engine: MAN B&W 7S80MC-C (Mark 7) x 1 set
 MCO: 21,910 kW x 74.5 min⁻¹
 Speed, service: 15.0kt
 Complement: 25
 Classification: NK
 Flag: Japan



IHIMU completes Handymax bulk carrier KURE HARBOUR

IHI Marine United Inc. has delivered the Future 56 (F56) type Handymax bulk carrier KURE HARBOUR (Hull No. 3320) to Kyowa Sansyo Co., Ltd. at its Kure Shipyard.

The Future 56, developed for flexible operation in worldwide trades, is equipped with five cargo holds and four deck cranes that can load various cargoes such as coal, ore, grain and steel products.

For the sake of superior economical operation in worldwide trades, the electronically controlled main engine (Flex Engine) is installed on the vessel. By adjusting fuel injection and exhaust valves at suitable timing, the engine can control combustion conditions regardless of loaded conditions. These mechanisms enhance fuel oil efficiency and further reduce undesirable emissions.

To achieve good propulsion perfor-



mance, economical operation, and good maneuverability, IHIMU designed the vessel with its sophisticated technological resources such as CFD analysis, 3D-FEM ship-model analysis, walk-through simulation, and apparatus installation simulation utilizing CIM system "Ajisai" which IHIMU developed on its own.

Principal particulars;

L (o.a.) x B x D: 190.00m x 32.26m x 18.10m
 DWT/GT: about 55,800t/31,600
 Main engine: DU-WARTSILA 6RT-flex50 x 1 unit
 MCR: 8,890kW x 116.0rpm
 Classification: NK
 Completion: November 9, 2011

Imabari completes 61,470DWT bulk carrier U-SEA COLONSAY

Imabari Shipbuilding Co., Ltd. delivered the 61,470DWT bulk carrier U-SEA COLONSAY (HN: K028) to its owner Pedregal Maritime S.A. at the Shin-Kasado Dockyard on October 24, 2011. The vessel is the 14th delivery of the 61,000DWT-class bulk carrier series named I-STAR developed by Imabari.

The vessel was designed and constructed as an oceangoing bulk carrier suitable for carrying a variety of cargoes including grain, coal, hot steel coils, long steel products, cement and

iron ore.

The vessel has a single hull construction consisting of five cargo holds, a double bottom, and side hopper and topside tanks.

Hatch covers are the folding type driven by an electro-hydraulic system, and four deck cranes are installed on the upper deck. To facilitate handling of large cargoes, the widths and lengths of hatch opening and tanktop flat are arranged to have the same size for each hold.

Fuel oil tanks at the engine room

and topside tanks are double hull construction for safety assurance. To avoid heat damage to cargoes, an F.O. shifter is used as a fuel oil heating system.

The main engine uses the latest model of B&W 6S50MC-C (Mark 8) diesel engine to achieve a service speed of 14.5 knots. An energy saving device, the "Hybrid Fin" developed by Imabari, is installed on the fore edge of the rudder just behind the propeller. These installations contribute to environment-friendly/economical operation of the vessel.

Principal particulars

L (o.a.) x l (b.p.) x B x D x d: 199.98m x 195.00m x 32.24m x 18.60m x 13.01m
 DWT/GT: 61,470t/34,778
 Main engine: Mitsui-MAN B&W 6S50MC-C (Mark 8) diesel x 1 unit
 MCR: 8,450kW x 108rpm
 Speed, service: 14.5kt
 Complement: 25
 Classification: NK
 Delivery: October 24, 2011



MES delivers 56,000DWT bulker MEDI OKINAWA

Mitsui Engineering & Shipbuilding Co., Ltd., (MES) recently delivered the 56,000DWT bulk carrier MEDI OKINAWA (HN: 1786), to its owner T&M Maritime S.A., Panama. The vessel had been constructed at the Chiba Works of MES.

This is a Handymax type 56,000DWT bulk carrier with a huge cargo hold capacity of more than 70,000m³ and marks the 135th ship of the series.

The series is highly appreciated in the market as "Mitsui's 56", for which the total construction orderbook reaches more than 170 units including those already delivered.

1. The vessel is designed in accordance with IACS Common Structural Rules. As a result, structural safety and operational flexibility are improved.

The vessel is designed to have the following same features as "Mitsui's 56";

- (a) Good manageable size of 56,000DWT at the summer draft
 - (b) Length and draft in consideration for accessibility to world main ports
 - (c) Low Fuel Oil Consumption based on good propulsive performance
2. The vessel has five (5) cargo holds and four (4) cranes for handling cargo.
 3. In order to load various kinds of cargo, the vessel is designed to have enough strength of tank top of cargo holds and to be suitable for efficient cargo handling.
 - (a) The size of hatch opening is the largest for this type of vessel in terms of both length and width.
 - (b) Each cargo hold has a sufficient clear length in order to load long pipes.
 - (c) Cargo hold is well strengthened to load heavy cargo such as hot coil etc.
 4. Main Engine is MITSUI-MAN B&W Diesel Engine 6S50MC-C, which is a light, compact and high output engine complying with MARPOL NO_x restriction for exhaust gas. It has good enough

power margin to provide a high degree of flexibility (at normal service output = 75% maximum continuous output) and the lowest fuel oil consumption

shall be realized by the optimum matching at normal service output.

5. Ballast water can be changed during navigation for protection of marine environment.
6. Generator engines also comply with MARPOL NO_x restriction for exhaust gas.

Principal particulars

L (o.a.) x L (b.p.) x B x D: 189.99m x 182.00m x 32.25m x 18.10m



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|-----------------|---|
| DWT/GT: | 56,118t/31,754 |
| Main engine: | MITSUI-MAN B&W 6S50MC-C diesel x 1 unit |
| MCO: | 9,480kW x 127.0rpm |
| Speed, service: | about 14.5kt |
| Complement: | 24 |
| Classification: | NK |
| Registry: | Panama |
| Delivery: | December 7, 2011 |

Naikai completes container carrier HANJIN DALIAN

Naikai Zosen Corp. has completed the HANJIN DALIAN, a containership capable of carrying 2,535TEU containers for delivery to S.T. Ocean Shipping S.A.

The vessel serves exclusive transport of containers, and 2,535 containers include reefers. The container hold consists of six compartments (Nos. 1 to 6) and has ten hatch openings. The full cell guide system is employed for each container hold. The main engine is a super-long stroke type diesel engine, and a newly designed energy-saving hull form is adopted. Their combined effects demonstrate improved propulsion efficiency, thus reducing fuel oil consumption.

To ensure safe ship operation in port or at sea, the vessel uses a bow thruster for easier berthing and unberthing, auto-heeling control equipment for safe cargo handling, and a collision avoidance-

assisting unit in navigation.

Fuel oil tanks are arranged to satisfy the requirements of MARPOL regulations on oil fuel tank protection and prevent marine pollution.

Principal particulars

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|----------------------------------|--|
| L (o.a.) x L (b.p.) x B x D x d: | 199.93m x 188.00m x 32.20m x 16.60m x 9.80m |
| DWT/GT: | 33,381t/27,061 |
| Main engine: | Hitachi Zosen MAN B&W 7S70MC-C diesel x 1 unit |
| MCR: | 21,735kW x 91min ⁻¹ |
| NCR: | 19,560kW x 88min ⁻¹ |
| Complement: | 25 |
| Speed, service: | about 22.2kt |
| Classification: | NK |
| Completion: | September 30, 2011 |



FRONTIER PHOENIX

Owner: Forward Gloria Navigation S.A.
 Builder: Koyo Dockyard Co., Ltd.
 Hull No.: S-2332
 Ship type: Bulk carrier
 L (o.a.) x B x D x d (ext.): 291.98m x 45.00m x 24.70m x 18.15m
 DWT/GT: 181,356t/92,752
 Main engine: Mitsui-MAN B&W 6S70MC-C diesel x 1 unit
 Speed, service: 15.15kt
 Registration: Panama
 Classification: NK
 Completion: Nov. 2, 2011

**SAKIZAYA WISDOM**

Owner: Sakizaya Wisdom S.A.
 Builder: Oshima Shipbuilding Co., Ltd.
 Hull No.: 10560
 Ship type: Bulk carrier
 L (o.a.) x B x D x d (ext.): 225.00m x 32.26m x 19.39m x 14.122m
 DWT/GT: 76,457t / 40034
 Main engine: Kawasaki MAN B&W 5S60MC-C7 diesel x 1 unit
 Speed, service: 14.5kt
 Registration: Panama
 Classification: BV/CR
 Completion: Sept. 27, 2011

**TEREPAIMA**

Owner: Panavenflot Corp.
 Builder: Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
 Hull No.: 1373
 Ship type: Tanker
 L (o.a.) x B x D: 228.60m x 42.00m x 21.50m
 DWT/GT: 105,000t/56,000
 Main engine: Mitsui MAN B&W 6S60MC-C diesel x 1 unit
 Speed, service: about 14.8kt
 Classification: LR
 Completion: Oct. 19, 2011

**C.S. STAR**

Owner: Caribstar Shipping, S.A.
 Builder: Kanda Shipbuilding Co., Ltd.
 Hull No.: 517
 Ship type: Open hatch cargo ship
 L (o.a.) x B x D x d (ext.): 177.00m x 28.60m x 14.35m x 10.034m
 DWT/GT: 33,170t/21,487
 Main engine: Mitsubishi 6UEC45LSE diesel x 1 unit
 Speed, service: 14.15kt
 Registration: Panama
 Classification: NK
 Completion: Sept. 29, 2011

**TURMOIL**

Owner: Mercator Navigation S.A.
 Builder: Onomichi Dockyard Co., Ltd.
 Hull No.: 565
 Ship type: Product/chemical tanker
 L (o.a.) x B x D : 182.5m x 32.20m x 19.05m
 DWT/GT: 50,358t/29,419
 Main engine: Mitsui MAN-B&W 6S50MC (Mark 7) diesel x 1 unit
 Speed, service: 15.2kt
 Registration: Panama
 Classification: NK
 Completion: Oct. 19, 2011

**EAGLE TEXAS**

Owner: AET MCV BETA LLC
 Builder: Tsuneishi Shipbuilding Co., Ltd.
 Hull No.: 1491
 Ship type: Aframax tanker
 L (o.a.) x B x D x d: 243.80m x 42.00m x 21.30m x 12.19m
 DWT/GT: 107,481t/60,379
 Main engine: MITSUI-MAN B&W 6S60MC-C (Mark 7) diesel x 1 unit
 Speed, service: 15.6kt
 Registration: Majuro
 Classification: LR
 Completion: Sept. 9, 2011

