SEA-Japan

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IHIMU completes 1st Future-52 type bulk carrier, *Azzura*

IHI Marine United Inc. delivered the *Azzura* (Hull No. 3195), a 52,000DWT Handymax size bulk carrier, to Cello Inc. on June 30, 2004 at the Yokohama Shipyard. The *Azzura* is the first of a series of Future-52 type bulk carriers developed by IHIMU. The *Azzura* has the optimum dimensions to qualify for worldwide trade, and well-appointed fittings for easy operation and maintenance. The five cargo holds have been strengthened for heavy cargo with holds Nos. 2 and 4 empty, and wide weathertight folding type hatch covers are fitted. Four deck cranes of 30t capacity are provided, and the deck cranes can be fitted with electro-hydraulic grabs as an option. The hold access complies with AWWF requirements.

Since 1967, IHI/IHIMU has delivered over 380 standardized multi-purpose cargo vessels, the well known F-series. The Freedom series, the first of the F-series, was highly evaluated for its excellent operating economy and reliability, and such high performance and evaluation were followed by its successors, the Fortune, Freedom Mark II, Friendship and Future series. The Future-52 was developed as a successor to the superior features of the well established Future series. The Future series has been particularly well evaluated for its operating efficiency from domestic and overseas owners, and the Future-52 retains such good operating efficiency with the maximum deadweight in the Handymax size Future series.

Principal Particulars:
L (o.a) x L (b.p.) x B x D x d: 189.96m x 181.00m x 32.20m x 17.30m x 12.26m
DWT/GT: 52,050t/29,407t
Main engine: DU-Sulzer 6RTA48TB diesel x 1 unit
Output
MCR: 8,100kW x 118.0rpm
NOR: 6,885kW at 111.8rpm
Speed, service: 14.7kt
Classification: NK
Complement: 25

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MHI completes *New Camellia* for NYK Line

Mitsubishi Heavy Industries, Ltd. (MHI) has completed the 19,961GT car/passenger ferry, *New Camellia* (HN: 1104), for NYK Line at its Shimonoseki Shipyard. The ferry is operated by Camellia Line and is now plying between Hakata, Japan and Pusan, Korea, with a schedule of six voyages a week. The ferry was built to replace the previous ferry, *Camellia* (15,439GT). The *New Camellia* can navigate at a speed of 23.5 knots, 2.5 knots faster than the predecessor, and shortens the voyage by six hours between two cities. This has also improved transport of fresh vegetables and fish, and refrigerated freight. The increase in the number of crossings a week from three to six has improved the convenience to shippers. Moreover, the larger ship size increases container loading capacity from 170TEUs to 220TEUs. The ferry can transport vehicles (trucks), special cargoes, and heavy cargoes based on the RO/RO method, which could not be transported by conventional ships on the route. Passengers' cars can also be carried.

Principal particulars
Dimensions: L (o.a.) 170.0m x B 24.0m x Draft 6.0m
DWT/GT: 4,642t/19,961t
Passengers: 522
Cargo loading capacity: 220TEUs and 40 passenger cars
Main engine: Medium speed diesel x 2 units
MCR: 26,920ps
Speed, service: 23.5kt

MES completes general cargo/container carrier, *Star Japan*

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) has delivered the *Star Japan* (HN: 1532), a general cargo/container carrier, to Grieg Shipping A/S of Norway at its Tamano works. The *Star Japan* is the second vessel of the series built for the Grieg group after the first vessel, *Star Juventus* (HN: 1531) built for Grieg International II A/S in May 2004.

These vessels are the so-called open hatch type bulk carrier with box-shaped cargo holds with hatch openings of the same size (length and breadth) as each hold for efficient loading of a variety of cargoes such as unitized cargoes of forestry products (papers, pulps and timbers), containers and bulk cargoes.

The vessel has a double-hull structure, and is equipped with a pair of self-traveling gantry cranes of MES make with advanced technology on the upper deck for efficient cargo handling.

To achieve the maximum cargo intake both on deck and in cargo holds, the accommodation space is designed in slim proportions and located far aft. The bow and stern thrusters and the Becker rudder achieve high maneuverability. The wheelhouse is designed for one-man-bridge operation. To secure the aft view from wheelhouse, two cylindrical funnels and spiral ladders are arranged. Free-falling type lifeboats are equipped.

Principal particulars of the *Star Japan*
L (o.a.) x L (b.p.) x B x D x d: 198.00m x 187.00m x 31.00m x 19.00m x 12.00m
DWT/GT: 46,387t (at 12.3m draft)/32,844t
Main engine: Mitsui-MAN B&W 6S60MC diesel x 1 unit
MCR: 10,520kW x 96rpm
Speed, service: 16.55kt
Complement: 29 (max.)
Classification: DNV
Completion: June 30, 2004

Kawasaki delivers *Clipper Sky* to Bergesen

Kawasaki Shipbuilding Corporation (Kawasaki) has delivered the LPG carrier, *Clipper Sky* (HN: 1543), to Partrederiet Clipper Sky DA. The carrier is the last of a series of five LPG carriers for which construction orders were placed by Bergesen D. Y. ASA and Solvang ASA of Norway with Kawasaki. The *Clipper Sky* has a cargo capacity of 59,200m^3 and is now operated by Solvang. The carrier is the 37th LPG carrier built by Kawasaki.

The *Clipper Sky* has four cargo tanks of the independent tank type that allows contraction of the tanks due to liquefied cargoes (LPG and NH_3) at low temperatures. The cargo tanks are constructed with special steel durable to the lowest temperature of minus 50°C and insulated with urethane foam. Reliquefaction units using three-stage compressors, cargo heaters, vaporizers, booster pumps, and aeration fans are also provided to facilitate cargo handling at ports. The carrier also has two deck tanks (300m^3 and 180m^3) on the upper deck, which reduces the time required for gas replacement due to change of the type of cargo since the replacement can be performed during navigation.

The main engine is the fuel-saving super-long stroke, 2-cycle low-speed Kawasaki-MAN B&W type. The Kawasaki SEA-ARROW bow and Rudder Bulb System with Fins are installed to increase propulsion efficiency. The use of an electric-control lubrication system for the main engine also reduces the consumption of lubricant for cylinders. The engine and cargo section operation is also totally managed by an integrated automation system. Various components and valves of both sections can be monitored and controlled at the central control room.

Principal particulars:
L (o.a.) x L (b.p.) x B x D x d: 204.915m x 200.45m x 32,20m x 20.20m x 12.00m
DWT/GT: 44,617t/35,158t
Cargo tank capacity: 59,363m^3
Main engine: Kawasaki-MAN B&W 5S60MC-C diesel x 1 unit
MCR: 11,275kW x 105rpm
Speed, service: 16.55kt
Complement: 31
Classification: DNV

SHI-ME delivers Panamax bulk carrier, *MYKALI*

Sumitomo Heavy Industries Marine & Engineering Co., Ltd. (SHI-ME) delivered a 76,400 MTDW Panamax bulk carrier, *Mykali*, to Rain Lily Inc., at the Yokosuka Shipyard on June 17, 2004. The vessel has seven cargo holds and seven cargo hatches suitable for carrying dry bulk cargoes, such as coal, iron ore and grain. The hull form is optimized to achieve both large deadweight and high propulsive efficiency. The Sumitomo Stern System (SILD, NBS propeller and HLES rudder) saves fuel consumption and improves maneuverability. The hull structure is designed in compliance with the classification requirements for the Safe Hull notation. Water ingress detection and alarm system for cargo holds further enhances safety of the vessel. Water ballast tanks are heavily coated with epoxy based paint with backup anodes for corrosion protection. Centralized control system is provided for efficient handling of water ballast. The system is monitored and controlled remotely from accommodation quarters.

Principal Particulars
L (o.a.) x B x D x d: 225m x 32.26m x 19.30m x 14.00m
DWT/GT: abt. 76,400t/39,818t
Cargo capacity: abt. 90,600m^3
Main engine: Mitsui MAN B&W 7S50MC-C diesel x 1 unit
Speed, service: 14.5kts
Complement: 25
Classification: ABS, ACCU, SH

Namura completes 229,000DWT ore carrier, *Gaia Pegasus*

Namura Shipbuilding Co., Ltd. has completed the construction and delivery of *Gaia Pegasus* (Hull No. 247), an ore carrier for Elara Maritima S.A. at its Imari Shipyard. The vessel is the second of the 229,000 DWT ore carrier series developed and delivered by Namura. The vessel has five cargo holds and nine cargo hatches, with two longitudinal bulkheads in the cargo area. The hatch covers are the one-panel, double-skin, side rolling type with chains for opening and closing, and each cover is operated by one hydraulic oil motor. The vessel is equipped with a long stroke, low-revolution and fuel-efficient 2-cycle supercharged diesel engine, which drives a large diameter propeller achieving superior propulsive performance combined with the vessel hull form based on Namura's latest technology and long experience. Special considerations were also given to safety, safeguards against environmental pollution, labor saving and operational economy.

Principal particulars:
L(o.a.) x B x D x d: 319.58m x 54.00m x 24.30m x 18.10m
DWT/GT: 229,186mt/113,929t
Cargo hold capacity: 146,958m^3 (grain)
Main engine: MITSUBISHI 6UEC85LSII x 1 unit
Output: 30,500ps x 76rpm
Classification: NK
Speed: 15.1kt
Completion: May 26, 2004

Naikai completes 45,900DWT product tanker, *High Energy*

Naikai Zosen Corporation has completed construction of the 45,000DWT product tanker, *High Energy* (HN: 683), for Diamond Product Tanker S. A. at the Setoda Shipyard. The tanker has the maximum permissible beam to go through the Panama Canal and has the double hull construction in compliance with MARPOL treaty. Cargoes include petroleum products such as light and heavy oils, crude oil, palm oil, etc. The total cargo tank capacity is 54,000m^3. Twelve cargo oil tanks and two slop tanks are provided. Four types of cargoes (four groups) can be loaded simultaneously. The load capacity is designed to be 25% volume for each tank. Cargoes are unloaded with four electric motor drive screw pumps of 800m^3/h capacity. The *High Energy* has a slender hull to achieve high speed. A high forecastle is provided to prevent the bow from swashing and increases seaworthiness as a high-speed medium range product tanker, attaining energy saving. Moreover, adoption of a special rudder facilitates ship maneuvering in a narrow port. Thus the ship operation efficiency has increased totally. The accommodation quarters is isolated from the engine casing to decrease noise and vibration. The crew can enjoy quiet free time at their accommodation quarters.

Principal particulars
L (o.a.) x B x D x d: 179.90m x 32.20m x 19.25m x 11.65m
DWT/GT: 46,874t/28,245t
Cargo tank capacity: 54,907.5m^3
Complement: 25
Main engine: Hitachi-B&W 6S50MC-C diesel x 1 unit
NCR: 8,530kW x 123min^{-1}
Speed, max. trial: 16.464kt
Speed, service: 15.7kt
Classification: NK
Completion: June 28, 2004

Courageous Ace wins the Award of The Ship of The Year 2003: Associated awards go to 10,000GT high-speed RO/ROs

The Society of Naval Architects of Japan (SNAJ) has awarded its 14th Ship Of the Year 2003 Award to the *Courageous Ace*, a 57,000GT pure car carrier, built by Minaminippon Shipbuilding Co., Ltd. for Courageous Shipholding S. A. The award ceremony took place at the Nippon Kaiun Club in Tokyo on July 20. The *Courageous Ace* can carry 6,400 vehicles (ordinary passenger cars) at a navigation speed of 20 knots and is now operated by Mitsui OSK Line.

The main features of the ship are its bow design that reduces wind pressure on the superstructures during navigation. This also helps maintain the straight course. Thus, reduction of fuel consumption is achieved, decreasing CO_2, NO_x, and SO_x emissions. This new design for the PCC (see photo) has been developed by the joint efforts of Mitsui OSK Line and Universal Shipbuilding Corporation.

Courageous Ace

Principal particulars of the *Courageous Ace* are:

Type of ship: Car and truck carrier
L (o.a.) x B x D: 198.00m x 32.20m x 33.70m
Gross tonnage: 57,000t

Sunflower Tokyo

Car carrying capacity: 6,400 units (small car equivalent)
Navigation area: International
Main engine: 14,160kW
Speed, service: 20.0kt

The associated awards were given to 10,000GT class coastal high-speed RO/RO ships featuring very low fuel consumption. The ships are the *Himawari 5, Himawari 6, Sunflower Hakata,* and *Sunflower Tokyo*, owned and operated by Japanese enterprises. These vessels were all built at the Shimonoseki Shipyard of Mitsubishi Heavy Industries, Ltd.

Special attention was paid to the study of suitable deadweight and vehicle loading capacity, and the development of hull form to improve the propulsive performance and especially save fuel oil consumption. As a result, the new vessels can reduce the duration of the voyage by 4 hours and increase vehicle-loading capacity by 30% compared with the previous six vessels.

Principal Particulars of the RO/RO ships are:

L (o.a.) x L (b.p.) x B x D x d: 166.90m x 158.00m x 27.00m x 23.27m (at upper deck) x 6.60m
DWT/GT (Japanese): 6,200t/10,500t
Main Engine: 9UEC52LSE diesel x 1 unit
Speed, service: 23.0kt
Loading Capacity of Vehicles
12m trailer chassis: 160 units
Ordinary cars: 251 units
Complement: Crew: 15; Passengers: 12
Classification NK

Universal Shipbuilding moves to new address

Universal Shipbuilding Corporation is moving to the following address in August 2004 and will commence operation as from Monday 16th August 2004.

Universal's new office building

New address: Muza-Kawasaki Central Tower 14-15F, 1310, Omiya-cho, Saiwai-ku, Kawasaki, Kanagawa Pref., 212-8544 Japan
Tel: +81-44-543-2700
Fax: +81-44-543-2710

Imabari moves to new address

Imabari Shipbuilding Co., Ltd. will move its Tokyo Head Office to the new address shown below in June 2004. The building will be renamed "Hibiya Marine Building" in October 2004.

New address: 11th Floor, Asahi Seimei Hibiya Bldg. 5-1, Yurakucho 1-chome, Chiyoda-ku, Tokyo 100-0006, Japan
Tel: +81-3-3500-8868
Fax: +81-3-3500-8873

Timaru Star

Owner: Thompson Shipping (BVI) Limited
Builder: The Hakodate Dock Co., Ltd.
Hull No: 794
Ship type: Bulk carrier
L (b.p.) x B x D x d: 167.00m x 29.40m x 13.70m x 9.56m
DWT/GT: 31,893t/19,779t
Main engine: Mitsubishi

6UEC52LA diesel x 1 unit
Speed: 14.3kt
Classification: NK
Completion: May 28, 2004

Takamine

Owner: Amarcord Maritima S. A.
Builder: Mitsubishi Heavy Industries, Ltd.
Hull No.: 2189
Ship type: VLCC
L (o.a.) x B x D x d: abt. 333.00m x 60.00m x 29.10m x 20.80m
DWT/GT: 306,206t/159,984t
Main engine: Mitsubishi-UE 7UEC85LSII 27,020kW x 76.0rpm
Speed, service: abt. 15.5kt
Classification: NK
Completion: June 30, 2004

Sibulk Tradition

Owner: Sibulk Tradition A/S
Builder: Oshima Shipbuilding Co., Ltd.
Hull No.: 10357
Ship type: Bulk carrier
L (o.a.) x B x D x d: 189.00m x 32.26m x 17.67m x 12.46m
DWT/GT: 55,362t/30,645t

Main engine: Kawasaki MAN B&W 6S50MC-C x 1 unit
Speed, trial max.: 14.5kt
Classification: DNV
Completion: July 16, 2004

Chemroad Echo

Owner: Orchard Maritime (Panama) S. A.
Builder: Shinkurushima Dockyard Co., Ltd.
Hull No.: 5248
Ship type: Chemical tanker
L (o.a.) x B x D x d: 174.38m x 167.00m x 27.70m x 16.00m x 11.00m

DWT/GT: 33,944t/20,117t
Main engine: Kobe Diesel 6UEC52LS diesel x 1 unit
Speed, service: 15.0kt
Classification: NK
Completion: Apr. 27, 2004

Monte Toledo

Owner: Borus Transportes Maritimos Lda
Builder: Universal Shipbuilding Corporation
Hull No.: 240
Ship type: Tanker
L (o.a.) x B x D x d: 274.30m x

48.00m x 22.40m x 15.30m
DWT/GT: 141,700t/78,896t
Main engine: DU Sulzer 6RTA72 diesel x 1 unit
Speed, service: 15.2kt
Classification: LRS
Completion: May 13, 2004

Pacific Glory

Owner: Fir Shipping S. A.
Builder: Imabari Shipbuilding Co., Ltd./Saijo Shipyard
Hull No.: 8021
Ship type: Ore carrier
L (o.a.) x B x D x d: 316.94m x 55.00m x 24.30m x 18.100m
DWT/GT: 233,694t/118,249t
Main engine: 6S80MC-C x 1 unit
Speed, Service: 15.4kt
Classification: NK
Completion: June 15, 2004

Kavo Topaz

Owner: United Ventures S. A.
Builder: Sanoyas Hishino Meisho Corp.
Hull No.: 1218
Ship type: Bulk carrier
L (o.a.) x L (b.p.) x B x D x d:

225.00m x 217.00m x 32.26m x 19.30m x 13.997m
DWT/GT: 75,499mt/38,845t
Cargo hold capacity: 89,250m^3
Main engine: MAN B&W 7S50MC-C diesel x 1 unit
Speed, service: 14.5kt
Classification: ABS
Completion: June 25, 2004