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Kanda completes 9,269GT ferry, ADINDA WINDU KARSA

Kanda Shipbuilding Co., Ltd. completed the 9,269GT passenger/car ferry, ADINDA WINDU KARSA, for P.T. WINDU KARSA of Indonesia in October 2015. The ferry is now in service centered on the Port of Jakarta.

The ferry is now plying within the Indonesian islands, carrying both passengers and vehicles. The ship is the multiple deck type consisting of vehicle deck, forecastle deck, upper vehicle deck, mid-deck, promenade deck, wheelhouse deck, and compass deck. The ferry has ramp doors at the bow and stern as well as a bow bulkhead door. The vehicle deck and upper vehicle deck are connected through inboard ramps installed at the port and starboard sides. These ramps allow safe roll-on/off of passenger cars and trucks.

The ship's propulsion system is the two-engine and two-shaft type and is steered by two rudders, which achieve good stability and propulsion performance. Berthing and unberthing are facilitated by a bow thruster. Heeling tanks and ballast tanks are provided for control of the inclination of the ship during embarkation and disembarkation of vehicles. The ballast tanks at the bow and stern can be remotely controlled.

The ADINDA WINDU KARSA passenger/car ferry is fully equipped with the necessary equipment for ensuring adequate stability, seaworthiness, and maneuverability. The ship's appearance is smart but construction is sturdy.

The main engines and electric generator engines are fuel-saving types, and shaft bracket fins are installed for further improved fuel efficiency.

Principal particulars

L (o.a.) x L (b.p.) x B x D (car deck) x d:	114.8m x 104.0m x 22.0m x 4.0m
DWT/GT:	2,120t/9,260
Main engines:	Daihatsu 6DKM-26e (L) diesel x 2 units
MCR (kW x rpm):	1,910kW x 750/276min^{-1}
NOR (kW x rpm):	1,623.5kW x 710/261.4min^{-1}
Speed, service:	15kt
Accommodation capacity:	1,014 passengers 36 officers and crew
Vehicle loading capacity:	69 trucks 60 passenger cars
Classification:	NK

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JMU completes Ultramax bulk carrier, STH NEW YORK

Japan Marine United Corporation (JMU) delivered the STH NEW YORK, a 60,000 DWT bulk carrier, called the Future-60, at its Kure Shipyard on October 23, 2015.

This Ultramax bulk carrier developed by JMU with its expertise and experience has larger deadweight and cargo hold capacity, and four deck cranes of 30 tons capacity, and is suitable for carrying various cargoes, such as grain, coal, iron ore and steel coils, in its five cargo holds.

JMU has been successful in dramatically decreasing the fuel oil consumption of Future-60, compared with its previous Supramax bulk carriers, by using various and comprehensive measures of energy-saving, so that the EEDI (Energy Efficiency Design Index) is much improved and GHG (Greenhouse Gas) emission may be greatly decreased.

JMU's original energy-saving devices, such as the SSD (Super Stream Duct) and Surf-Bulb, contribute to improve the propulsion performance of the vessel. In addition, application of the fuel oil tank protection rule, ballast water treatment system, and MARPOL NO_x Tier II makes the vessel environment-friendly.

The CSR (Common Structural Rules) for bulk carriers and PSPC (Performance Standard for Protective Coatings) for ballast water tanks are applied for improved safety and maintenance of the vessel.

Principal particulars

L (o.a.) x B (mld) x D (mld) x d (mld): 198.0m x 32.26m x 18.6m x 12.9m
DWT/GT: 60,000t/34,321
Main engine: WARTSILA 6RT-flex50-D diesel x 1 unit
Speed: 14.0kt
Complement: 25
Classification: NK

MHI completes 24,000GT passenger/car ferry, FERRY KITAKYUSHU II

Mitsubishi Heavy Industries, Ltd. (MHI) delivered the Ferry Kitakyushu II, a 24,000GT passenger/car ferry to the co-owners, Japan Railway Construction, Transport and Technology Agency and Meimon Taiyo Ferry Co., Ltd. on November 27, 2015.

The vessel was designed and built at the Shimonoseki Shipyard & Machinery Works of MHI, and is now plying a Seto Inland-sea route between Shin-Moji and Osaka together with its sister vessel, Ferry Osaka II. The vessel's loading capacity of trucks is enlarged by 30% compared with the former vessel to contribute to the modal shift of transport.

This vessel applies the hybrid propulsion system for two purposes, eco-friendly energy saving and high ship maneuverability. The hybrid propulsion system consists of a main propeller directly driven by the diesel engine and two electric drive azimuth propellers besides the main propeller. These azimuth propellers are used as propulsive assistance to the main propeller, main propulsion in the harbor speed range, and stern thrusters. Moreover, the vessel applies the Mitsubishi Air Lubrication System (MALS) which covers the ship's bottom with air bubbles to reduce frictional resistance between the ship hull and seawater.

Passengers' private and public spaces are designed in the theme of "cool-tone" in the motif of the stylish urban space of the Kansai and Kitakyushu metropolitan areas. For greater comfort of passengers, more private rooms are provided compared with the former vessel. Also, barrier-free access is considered for the passengers' embarkation and two elevators are installed between the lowest and the highest decks.

Principal particulars

L (o.a.) x L (b.p.) x B (mld) x D (mld) x d (mld): 183.00m x 172.00m x 27.00m x 15.15m x 6.70m
Gross tonnage: 23,984
Speed, service: 23.2kt
Cargo Loading Capacity:
146 trucks
105 passenger cars
Accommodation capacity:
713 passengers (coasting service)
38 officers and crew
Machinery:
Two main diesel engines
One main propeller (CPP)
Two propulsion electric motors
Two aux. propeller (Azimuth CPP)
Classification: NK
Port of Registry: Osaka
Registry: Japan

NAMURA completes 175,000DWT ore carrier, TAHAROA PROVIDENCE

Namura Shipbuilding Co., Ltd. delivered the TAHAROA PROVIDENCE, a 175,238DWT ore carrier built at its Imari Shipyard & Works, to Nepal Shipholding S.A. on November 19, 2015. The vessel is mainly engaged in dedicated shuttle service between the Port of Taharoa on the North Island of New Zeeland and China.

The vessel was constructed to comply with the latest requirements of international regulations, such as IMO PSPC-WBT for corrosion protection of water ballast tanks to increase the safety of the vessel.

The ballast water treatment system has been employed to control the quality of ballast water for protection of the marine environment prior to enforcement of the International Convention for the Control and Management of Ships' Ballast Water and Sediments.

For environmental safety, the vessel is equipped with the main engine and generator engine compliant with the Annex VI of MARPOL 73/78 regulations to reduce NO_x emissions. An energy saving device attached to the stern will improve the propulsion performance and contributing to reduction of fuel consumption. Machinery in the engine room is automated on the basis of the NK M0 concept.

Principal particulars

L (o.a.) x B (mld) x D (mld) x d (mld): 290.40m x 45.00m x 24.70m x 18.29m
DWT/GT: 175,238t/90,288
Main engine: MAN B&W 6S70ME-C8.2 diesel x 1 unit
Speed, service: About 14.45kt
Complement: 30
Classification: NK
Registry: Republic of Panama

Shin Kurushima completes white product carrier, RINDO MARU

Shin Kurushima Hashihama Dock Co., Ltd. has completed the RINDO MARU, a 3,900GT class white product tanker, for Uyeno Transtech Ltd., which is now in coastal service in Japan. The tanker has decreased fuel consumption with energy-saving devices such as stern fins, and the main engine is the low NO_x emission type complying with MARPOL Annex VI Tier II Regulation for air pollution prevention.

As a merchant vessel, the RINDO MARU is the first Japanese vessel installing the AIS Approach Monitoring System (Aams-II) to avoid collision with other ships and ensure navigation safety. A bow thruster with a thrust force of seven tons and the Schilling rudder are used for increased ship maneuverability in a port. Moreover, safe navigation of the tanker is secured by equipment such as two color radars with a target tracking system, the Electronic Chart Display and Information System (ECDIS), and Bridge Navigational Watch Alarm System (BNWAS).

The tanker has acquired M0 notation of CLASS NK, and the engine control room is equipped with a data logger to monitor machinery in the engine room with an LCD. Two sets of cargo pumps with a capacity of 1,300m³/h are mounted. For safe cargo-handling work, these pumps can regulate the adequate flow of cargo oil products with an electric inverter controller, and pump vibration is minimized.

The living quarters comply with the revised requirements for accommodation sanitary equipment, the arrangement of which was carefully considered in the living environment of the crew.

The tanker has been designed to achieve cargo-handling work by manual operation to develop the cargo-handling skills of young crew members to cope with aging of crew members, which is now becoming a problem in the coastal shipping industry.

Principal particulars

Owner/Operator: Uyeno Transtech Ltd.
Builder: Shin Kurushima Hashihama Dock Co., Ltd.
Ship type: Product tanker (White oil, Limited to coasting area)
Hull No.: 5902
Gross tonnage: About 3,900
Cargo tank capacity: 6,350m³
L x B x D: About 104.90m x 16.00m x 8.30m
Main engine: MAKITA-MITSUI-MAN B&W 6L35MC6.1 3,900kW x 1 unit
Classification: NK
Completion: October 21, 2015

Naikai completes 37,700DWT general cargo ship, AFRICAN GROUSE

Naikai Zosen Corporation completed construction of the 37,700DWT general cargo ship, AFRICAN GROUSE, for the ship owner, African Grouse Shipping Co. Ltd., at the Innoshima Works on October 15, 2015. This cargo ship has double-side shells for every cargo hold as the most advanced version.

The double-side shell construction ensures stronger structural performance and better stability against external damage compared with the conventional cargo ship as well as easier maintenance inside the cargo holds. Should external damage occur, the inner shell of the vessel can prevent loss or outflow of cargoes and maintain the quality of cargoes. This construction complies with the international regulations and protects the fuel oil tanks for marine conservation.

The ship has a wide beam and shallow draught, and its hull form allows entry to shallow water ports and navigating rivers, channels, and lakes. Course-keeping stability is achieved with an adequate rudder area and a special stern form.

The vessel has a versatile cargo-loading capacity for grains, coal, ore, steel products, lumbers, etc. For cargo-handling efficiency, box-shaped type cargo holds are employed for four holds (Nos. 2 through 4) of the total five holds. Four 30t deck cranes and wide hatch openings facilitate handling of particularly lengthy cargoes such as lumber, the capacity for which has been increased by the most suitable arrangement of ballast tanks.

The vessel is an eco-ship that uses an economical low-speed main engine combined with a large-diameter propeller. The Super Stream Duct (SSD) and Surf-Bulb (Rudder Fin with Bulb) are installed for increased fuel efficiency. The seaworthy bow design also enables economical ship operation.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d:	183.00m x 177.00m x 30.60m x 14.50m x 10.00m
DWT/GT:	37,700t/23,750
Cargo hold capacity: (grain)	47,125.3m^3
Main engine:	Hitachi-MAN B&W 6S46ME-B8.3 diesel x 1 unit
D.C.S.O.:	5,690kW x 107.0min^{-1}
Speed, service:	About 14.1kt
Complement:	25
Classification:	ABS
Registry:	Bahamas
Completion:	October 15, 2015

Oshima completes J-OPEN Type Cargo Carrier, AVOCET ARROW

Oshima Shipbuilding Co., Ltd. delivered the 62,823DWT-type box-shaped general cargo carrier, to Gearbulk Shipowning Limited on November 27, 2015. This type of ship is called the "J-OPEN Type General Cargo Carrier" and has eight cargo holds of the open hatch type, and four jib deck cranes instead of the gantry cranes.

The J-OPEN-type carrier is designed to efficiently handle a variety of cargoes such as wooden pulp, packaged lumbers, hot coils, containers, grain, ore, coal, aluminum ingots, sulfur, other baled cargoes, and bulk cargoes. Each cargo hold has completely square hatch corners and flush bulkhead surfaces, which enable smooth embarking and disembarking of unitized cargoes. A dehumidifying system is installed to maintain dry conditions for specific cargoes such as wooden pulp, roll papers, etc.

The jib-type deck cranes have a hoisting capacity of 42 tons, which were manufactured by IKNOW Machinery Co., Ltd. of Japan, and their good maneuverability shortens the time required for loading and unloading work.

The AVOCET ARROW, for decreasing fuel consumption, is installed with the Advanced Flipper-Fins, rudder bulb, low friction paint, and an electronically controlled engine. The Seaworthy Bow, which demonstrates excellent seaworthiness, is also adopted to improve speed performance under rough weather conditions.

Principal particulars

Length, o.a.:	199.98m
Length, b.p.:	196.00m
Breadth, mld.:	32.26m
Depth, mld.:	19.22m
Summer draft, mld.:	13.470m
DWT/GT:	62,823t/37,128
Cargo hold capacity:	70,137m^3
Main engine:	Mitsui MAN B&W 6S50ME-C8.2 diesel x 1 unit
MCR:	7,730kW at 108.0rpm
Speed, service:	14.55kt
Classification:	NK
Completion:	November 27, 2015

MES acquires shares in TGE Marine AG

Mitsui Engineering and Shipbuilding Co., Ltd. (MES) acquired 99.36% of the outstanding ordinary shares in TGE Marine AG (TGE) from Caledonia Investments plc, Gasfin Investment S.A. and Dr. Kuver GbR, the partnership belonging to the CEO of TGE. TGE became a consolidated subsidiary of MES as of October 1, 2015.

With the demand for small-to-medium sized carriers for liquefied natural gas (LNG), ethane and ethylene gas (LEG), and liquefied petroleum gas (LPG) expected to increase in the foreseeable future, MES is currently engaged in the development and sale of medium sized multi-gas carriers (neo-GC). In addition, with tightening environmental regulations and increasing focus on environmentally friendly marine fuel, MES has been engaging in the development and sale of electronically-controlled dual fuel gas injection diesel engine (ME-GI) and high-pressure compressors for fuel gas supply systems (FGSS) that can use not just heavy oil, but also natural gas as fuel.

TGE, headquartered in Bonn, Germany, is an engineering, procurement, and construction supervision provider that, among many services, designs type-C pressurized gas tanks and gas handling systems, procures raw materials and components, and supervises construction for small-to-medium sized gas carriers. TGE already boasts strong market positions in both the small LNG carrier and small ethylene carrier markets, with more than 50% share in each market, and in the LPG carrier market, with approximately 30% share. In addition, TGE is expanding its business in the engineering and construction supervision of FGSS and floating storage & regasification unit for LNG (FSRU).

As such, the technology and the engineering and construction know-how, along with the strong customer bases at both MES and TGE are expected to be highly compatible with each other and by bringing all of this together, MES believes the two companies will be able to establish excellent market position in the global small-to-medium sized gas carrier market and offer high value-added solutions to their customers. Furthermore, MES offering its core gas fuel products, such as engines and high-pressure compressors, is expected to produce significant synergies with TGE's FGSS.

TGE is of significant strategic importance to achieving the mid-to-long term growth strategy for the MES group and will be an integral driver to increasing enterprise value.

MHI-MME completes development of Organic Rankine Cycle (ORC) System

Mitsubishi Heavy Industries Marine Machinery Engine Co., Ltd. (MHI-MME) has completed system development of the Hydrocurrent* Organic Rankine Cycle (ORC) Module 125EJW, as a low temperature heat recovery system. (Hydrocurrent* is a trademark of Calnetix Technologies)

With an output of 125kWe, plant testing of the pilot module has been completed by Calnetix Technologies, which is MHI-MME's partner in the U.S. Approvals from ClassNK and Lloyd's Register were obtained in 2015. Going forward, MHI-MME will evaluate the various data collected through onboard testing to confirm the module's performance and reliability at sea.

The ORC captures the waste heat from the main engine's jacket water (about 85°C) and converts it into electricity. The ORC reduces CO_2 emissions by lowering the burden on the ship's diesel generator. Ships utilizing the ORC can expect an improvement in ship power plant efficiency.

ORC module (125EJW)

IRIS LEADER

Owner: Star Fruit Maritima S.A.
Builder: Imabari Shipbuilding Co., Ltd.
Ship type: Pure car carrier
L (o.a.) x B x D: 199.90m x 34.80m x 38.07m
DWT/GT: 20,853t/70,826
Main engine: 7UEC60LSE-Eco-A2 diesel x 1 unit
Speed, service: 20.20kt
Classification: NK
Completion: December 11, 2015

STH LONDON

Owner: Sea Trade Holdings Inc.
Builder: Mitsui Engineering & Shipbuilding Co., Ltd.
Ship type: Bulk carrier (neo 60BC)
Hull No.: 1899
L (o.a.) x B x D: 199.99m x 32.25m x 18.50m
DWT/GT: 60,446t/ 34,551
Main engine: Mitsui-MAN B&W 6S50ME-B9.3 diesel x 1 unit
Speed, service: 14.5kt
Complement: 24
Classification: NK
Delivery: October 27, 2015

SERIANA

Owner: Seriana Transportation Corp.
Builder: Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
Hull No.: 1381
Ship type: Tanker
L (p.p.) x B x D: 234.34m x 42.00m x 21.45m
DWT/GT: 109,991t/57,997
Main engine: Mitsui-MAN B&W 6S60ME-C8 diesel x 1 unit
Speed, service: About 14.9kt
Classification: LR
Completion: September 9, 2015

Q KENNEDY

Owner: Q Kennedy Shipping Ltd.
Builder: Sasebo Heavy Industries Co., Ltd.
Hull No.: S833
Ship type: Bulk carrier
L (o.a.) x B x D: 229.00m x 38.00m x 19.10m
DWT/GT: 84,978t/47,003
Main engine: MAN B&W 6S60ME-C8.2 diesel x 1 unit
Speed, service: 14.1kt
Registry: Republic of the Marshall Islands
Classification: ABS
Completion: July 30, 2015

IVS BOSCH HOEK

Owner: Cardinal Maritime S.A.
Builder: Onomichi Dockyard Co., Ltd.
Hull No.: 712
Ship type: Bulk carrier
L (o.a.) x B x D x d (ext.): 199.90m x 32.26m x 18.60m x 13.00m
DWT/GT: 60,269t/34,806
Main engine: B&W 6S50ME-B9.3 diesel x 1 unit
Speed, service: about 14.5kt
Registry: Singapore
Classification: NK
Completion: October 28, 2015

MEDI SYDNEY

Builder: Tsuneishi Factory, Tsuneishi Shipbuilding Co., Ltd.
Hull No.: 1546
Ship type: KAMSARMAX bulk carrier
L x B x D: About 229.00m x 32.26m 20.00m
DWT/GT: 81,788t/43,028
Main engine: MAN B&W 6S60ME-C8.2 diesel x 1 unit
Speed, service: 14.5kt (at normal output)
Classification: NK
Completion: September 14, 2015