SEA-Japan

No. 378 Aug. - Sept. 2016

MHI completes AIDAprima, a new-generation cruise ship

Mitsubishi Heavy Industries, Ltd. (MHI) delivered the AIDAprima, which is the first of two large cruise ships built for AIDA Cruises, at the Nagasaki Shipyard & Machinery Works on March 14, 2016.

The AIDAprima has 18 decks, is 300 meters in overall length, has gross tonnage of 125,000 tons, and is equipped with 12 restaurants, 18 bars and an on-board brewery. The numerous indoor public amenities include extensive areas dedicated to health and fitness such as Spa and Gym and indoor recreational water facilities under large foil domes (one with a water slide) which provide entertainment and enjoyment for all ages. The ship has total 1,643 staterooms, making it the most expansive ship in the AIDA Cruise fleet.

Principal particulars

L (o.a) x B x d (des.):	300m x 37.6m x 8m
GT:	abt.125,000
No. of decks:	18
No. of staterooms:	1,643
No. of restaurants:	12
No. of bars:	18
Passengers:	abt. 3,300
Propulsion:	14MW x 2 sets
Main engine:	12MW x 3 sets, 10.8MW x 1 set

The AIDAprima is the world's first cruise ship equipped with the "Mitsubishi Air Lubrication Systems" (MALS), MHI's proprietary technology that enhances fuel efficiency. Other cutting-edge technologies that save energy, increase automation and reduce manpower needs include a pod propulsion system, liquefied natural gas (LNG) fuel supply system, the latest gas-emission treatment system, and

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European luxury cruise on board the AIDAprima

Illuminated christening ceremony of the AIDAprima in Hamburg

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a new air-conditioning system that saves energy consumption by using waste heat. She is also equipped with state-of-the-art technologies to ensure safety onboard.

The AIDAprima was christened in a splendid ceremony which took place in Hamburg on May 7, 2016. She was given a warm welcome by hundreds of thousands of people who filled the port of Hamburg as well as AIDA fans and passengers on board.

The AIDAprima is the first cruise ship to be deployed from a German port year round offering 7-day cruise from Hamburg to other cities in Western Europe including London/ Southampton, Paris/Le Havre, Brussels/Zeebrugge and Rotterdam.

AIDA Beach Club

Body and Soul Sport

Body and Soul Spa

Theatrium (above)
Brauhaus (right)
Lanai Bar (bottom right)
Suite Cabin (below)

The Ship of The Year 2015 award goes to sister car ferries, Izumi and Hibiki

The Japan Society of Naval Architects and Ocean Engineers (JASNAOE) holds a yearly competition to commend Japanese-built ships notable with technical, aesthetic and social aspects, and has selected seven candidate vessels for this year's award, the 26th such commendation since its start.

The society's meetings to decide on and announce the choice for the Ship of The Year 2015 award were held on Tuesday, May 31, and selected the sister car ferries IZUMI and HIBIKI.

On the same occasion, Japan's first LNG-fired tugboat SAKIGAKE was awarded a special technical prize, and divisional category awards were given to the MILLAU BRIDGE (large cargoship category), the NATORI (small cargoship category) and the KOYO MARU NO. 88 (fishing boat/work vessel category).

The prize giving ceremony was held on Thursday, July 7 as a joint event by three maritime technical societies including The Japan Institute of Marine Engineering (the Marine Engineering of the Year award) and the Japan Institute of Navigation (Contribution to Navigation award) in addition to JASNAOE).

The Ship of The Year 2015 IZUMI and HIBIKI

The car ferries are among the biggest in cargo capacity in the fleet engaged in Seto Inland Sea services and have achieved over 20% energy saving with their many fuel efficiency features. The new ferries are expected to make important contributions to environmental load reduction and development of the regional economy. The vessels were built by Mitsubishi Heavy Industries Shipbuilding Co., Ltd. for Hankyu Ferry Co., Ltd. *(The photo shows the HIBIKI. For details, see SEA-Japan No. 370)*

Awardees by categories

Special Technical Prize SAKIGAKE

Japan's first LNG-fired tugboat SAKIGAKE is powered by a dual fuel engine system. When running on LNG, the environmentally friendly vessel's CO_2, NO_x and SO_x emissions are lower than when burning heavy oil by about 30%, 80% and 100%, respectively. The tugboat was built by Keihin Dock Co., Ltd. for Nippon Yusen Kabushiki Kaisha (NYK Line).

Large Cargoship MILLAU BRIDGE

This is the first vessel of the 14,000-TEU class mega-containership series embodying advanced technical features. Particular attention is paid to safety, even more than required by official rules applicable to the use of high tensile steel plates. This ship was constructed by Imabari Shipbuilding Co., Ltd. for Cypress Maritime, S.A. *(See SEA-Japan No. 371)*

Small Cargoship NATORI

The vessel has a bulbous bow structure, the first to be used for a containership, to enhance fuel efficiency by reducing the wind pressure resistance from ahead. The wheelhouse and living accommodations are also arranged toward the bow for greater cargo loading efficiency. The engine room uses an advanced ship safety management system that allows 24-hour remote monitoring from ashore to prevent serious troubles. Kyokuyo Shipyard Co., Ltd. built the vessel for Imoto Lines, Ltd.

Fishing Boat/Work Vessel KOYO MARU NO. 88

The KOYO MARU NO. 88 is an ocean round haul netter embodying many remarkable new technologies.

The state-of-the-art main engine shaft generator, power management system, and most up-to-date fishing system make the fishing boat far more advanced than earlier similar vessels in safety, operating efficiency (labor saving) and energy efficiency. Niigata Shipbuilding & Repair Inc. built the vessel for Tokai Fishery Co., Ltd.

JMU completes G-Series Dunkirkmax bulk carrier, CHOULLY

Japan Marine United Corporation (JMU) delivered an 182,000DWT bulk carrier at its Tsu Shipyard on April 20, 2016. This is the 14th vessel of the "G-Series" of Dunkirkmax bulk carrier, called G182BC. JMU previously built the G-Series Newcastlemax and Panamax bulk carriers, and this G182BC is the third ship type of the G-Series.

The G182BC type has succeeded in drastically decreasing fuel oil consumption by using various and comprehensive measures for energy-saving, and the Energy Efficiency Design Index (EEDI) is much improved.

The G182BC type has been developed based on the expertise and vast experience of JMU. SSD (Super Stream Duct) and Surf-Bulb (Rudder Fin with Bulb) equipped fore and aft of the propeller, respectively, much improve the propulsion performance. Furthermore, the unique bow shape of LEADGE Bow can decrease additional resistance in waves, and well-refined shape of the superstructure has low wind resistance.

In addition, the low level EEDI, ballast water treatment system, and compliance with the MARPOL NO_x Tier-II are important environmentally friendly features of the vessel.

Principal particulars

L (o.a.) x B x D x d:292.00m x 45.00m x 24.55m x 18.18m
DWT/GT: 182,651t/93,297
Main engine: MAN B&W 7S65ME-C8.2 diesel x 1 unit
Speed: 15.05kt
Complement: 27
Classification: NK

Kawasaki delivers LNG Carrier, LNG FUKUROKUJU

Kawasaki Heavy Industries, Ltd. has delivered the LNG carrier, LNG FUKUROKUJU (HN: 1712), to The Kansai Electric Power Co., Inc. and Mitsui O.S.K. Lines, Ltd. on June 17, 2016.

The LNG FUKUROKUJU is the Moss-type LNG carrier with almost the same hull size with that of the existing 147,000m^3 type LNG carriers, enabling good ship-shore compatibility with major LNG terminals throughout the world, but also allowing passage through the New Panama Canal.

The cargo tank capacity of the LNG FUKUROKUJU is greater by more than 17,700m^3 from that of the existing 147,000m^3 type LNG carriers. The ship features a fully optimized hull structure for lighter weight, as well as a hull shape that is optimized for the maximum propulsive performance.

The Kawasaki Advanced Reheat Turbine Plant (Kawasaki URA Plant), which was developed specially for LNG carriers, improves fuel consumption by approximately 25% compared with conventional steam turbine plants. The LNG FUKUROKUJU is the third ship equipped the Kawasaki Advanced Reheat Turbine Plant (Kawasaki URA Plant).

Other features include:

- This vessel features four Moss-type spherical LNG tanks that add up to a total capacity of 165,134m^3. The LNG tanks use the Kawasaki Panel System, a high-performance insulation system developed by Kawasaki that keeps the boil-off rate to no more than 0.08% per day.
- The cargo holds housing the LNG tanks employ a double-hull and a double-bottom structure to protect the tanks from damage in the case of an accident.
- The wheelhouse is equipped with state-of-the-art, nautical equipment and a satellite communication system, and all information needed for navigating the ship is displayed on monitors on the integrated bridge console to enable safe and efficient ship handling. In addition, the wheelhouse has windows on all sides to give the operators a 360-degree view.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d:293.00m x 280.00m x 48.90m x 27.00m x 12.20m
DWT/GT: 83,809t/127,242
Cargo tank capacity: 165,134m^3 (at -163°C 100%)
Main engine: Kawasaki URA-400 reheat cycle turbine plant x 1 unit
MCO: 26,800kW x 70rpm
Speed, service: about 19.5kt
Complement: 49
Registry: Nassau, Bahamas
Classification: NK

NAMURA completes 82,000DWT type bulk carrier, CORATO

Namura Shipbuilding Co., Ltd. delivered the CORATO, a 81,677DWT bulk carrier, to Telford Shipping Limited at its Imari Shipyard & Works on April 5, 2016. This is the first vessel of the newly developed 82,000DWT type bulk carrier. The vessel has following features:

The CORATO is designed for carrying grain, coal, iron ore, etc. as a bulk carrier with the maximized loading capacity and compliant with common structural rule.

High propulsion performance and reduction of fuel oil consumption are achieved by energy saving devices, high efficiency propeller, wind resistance reduction type superstructure and electronically controlled main engine.

Large-capacity ballast pumps and independent ballast stripping line are provided to improve ballasting and deballasting performance. The vessel has several types of holding tanks to satisfy the port regulations and for the management of discharging gray water, sewage, bilge water after cargo hold cleaning, etc.

For environmental safety, the vessel uses the main engine and generator engine compliant with the Annex VI of MARPOL 73/78 regulations to reduce NO_x emissions. The centralized fresh water cooling system is adopted for the machinery space equipment to ease maintenance.

The ballast water treatment system is used to control the quality of ballast water for protection of marine environment prior to enforcement of the International Convention for the Control and Management of Ships' Ballast Water and Sediments. The IMO PSPC (Performance Standard for Protective Coatings) WBT is applied to corrosion protection of the water ballast tanks to increase safety of the vessel.

Principal particulars

L (o.a.) x B (mld) x D (mld) x d (mld): 228.99m x 32.26m x 20.10m x 14.50m
DWT/GT: 81,677t/44,442
Main engine: MAN B&W 6S60ME-C8.2 diesel x 1 unit
M.C.O.: 9,660kW x 89.0 min^{-1}
Speed, service: about 14.1kt
Complement: 25
Registry: Malta
Classification: LR

Sanoyas completes Panamax bulker, SPRING PROGRESS

Sanoyas Shipbuilding Corporation has completed construction of the SPRING PROGRESS, a Panamax bulk carrier, at the Sanoyas Mizushima Shipyard. The vessel is the seventh of the 82,000DWT type Panamax bulk carrier series developed by Sanoyas.

The cargo hold capacity of this series is larger than those of previous versions of Sanoyas, and the fuel consumption is also slashed by 10% compared with the 83,000DWT type that has demonstrated 10% lower fuel consumption than the conventional Sanoyas types.

The vessel achieves Phase 2 level of EEDI (Energy Efficiency Design Index: CO_2 emission (grams) per ton (cargo)/nautical mile) regulation that will apply to shipbuilding contract has been placed on or after January 1, 2013.

For improvement of propulsion efficiency, the vessel is equipped with the low-speed and long-stroke and electronically-controlled main engine combined with a high-efficiency propeller and associated energy saving devices such as Sanoyas developed STF (Sanoyas-Tandem-Fin (patent): max. 6% energy saving) on stern shell and highly efficient appendages on the rudder, which also contribute to the reduction of CO_2 emission.

Various eco-friendly features such as the main engine compliant with the NO_x emission Tier II limit for prevention of air pollution, and the Ballast Water Treatment System and fuel oil tank protection for the protection of the marine environment are incorporated. In addition, independent holding tanks for accommodation discharges, dirty hold bilge and rainwater on upper deck are provided.

Principal particulars

Hull No.: 1334
L (o.a.) x B x D x d: 229.00m x 32.24m x 20.20m x 14.668m
DWT/GT: 82,055t/43,466
Cargo hold capacity: 96,597m^3 (Grain)
Complement: 25
Main engine: MAN B&W 6S60ME-C8.2 diesel x 1 unit
MCO: 8,740kW
Speed, service: 14.5kt (at C.S.O. with 15% sea margin)
Registry: Panama
Classification: NK
Delivery: April 5, 2016

TAI SUMMIT

Owner: Tai Shing Maritime Co., S.A.
Builder: Oshima Shipbuilding Co., Ltd.
Hull No.: 10771
Ship type: Bulk carrier
L (o.a.) x B x D x d (ext.): 199.98m x 32.26m x 18.33m x 12.850m
DWT/GT: 60,618t/34,009
Main engine: Mitsui-MAN B&W 6S50ME-B9.3 diesel x 1 unit
Speed, service: 14.3kt
Registry: Panama
Classification: ABS
Completion: April 18, 2016

BERGE HALLASAN

Owner: Ambitious Line S.A.
Builder: Naikai Zosen Corporation
Ship type: General cargo ship
L (o.a) x B x D x d: 183.00m x 30.60m x 14.50m x 10.00m
DWT/GT: 37,600t/23,749
Cargo hold capacity: 47,125.3m^3 (grain)
Main engine: Hitachi-MAN B&W 6S46ME-B8.3 diesel x 1 unit
MCO: 6,695kW x 113.0 min^{-1}
Speed, service: about 14.1kt
Complement: 25
Registry: Panama
Classification: NK
Completion: May 30, 2016

KANDA LOGGER

Owner: Kanda Logger Limited
Builder: Kanda Shipbuilding Co., Ltd.
Hull No.: 552
Ship type: Log/bulk carrier
L (o.a.) x B x D x d (ext.): 179.9m x 30.0m x 15.0m x 10.772m
DWT/GT: 37,613t/23,275
Main engine: 6UEC45LSE-Eco-B2 diesel x 1 unit
Speed, service: 14.0kt
Registry: Hong Kong
Classification: NK
Completion: April 28, 2016

PAOLO TOPIĆ

Owner: Sumitomo Corporation
Builder: Onomichi Dockyard Co., Ltd.
Hull No.: 713
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: 60,155t/34,905
Main engine: Mitsui-MAN B&W 6S50ME-B9.3 diesel x 1 unit
Speed, service: 14.5kt
Registry: Majuro (Marshall Islands)
Classification: LR
Completion: May 13, 2016

CF DIAMOND

Owner: Chijin Shipping S.A.
Builder: Tsuneishi Shipbuilding Co., Ltd.
Hull No.: 1542
Ship type: Bulk carrier
L (o.a.) x B x D x d (ext.): 190m x 32.26m x 18m x 12.28m
DWT/GT: 57,610t/32,600
Main engine: MAN B&W 6S50ME-C8.2 diesel x 1 unit
Speed, service: 14.5kt
Registry: Marshall Islands
Classification: DNV
Completion: June 30, 2016

LOCH NESS

Owner: Sun Advance Shipping S.A.
Builder: Shin Kurushima Toyohashi Shipbuilding Co.,Ltd.
Hull No.: S-3668/S-5785
Ship type: Bulk carrier
L (o.a.) x B x D: 199.92m x 32.26m x 18.7m
DWT/GT: 61,272t/35,025
Main engine: B&W 6S50ME-B9.3 diesel x 1 unit
Speed, service: 14.5kt
Registry: Panama
Classification: NK
Completion: May 31, 2016