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MHI builds 10,000m³ suction hopper dredger for Suez Canal

Mitsubishi Heavy Industries, Ltd. has completed construction of the largest trailing suction hopper dredger ever built in Japan at its Kobe Shipyard and Machinery Works and delivered the dredger to the Suez Canal Authority of Egypt. The vessel named *Mecca* is now engaged in canal dredging in the Suez Canal.

The *Mecca* has a through main deck, a poop deck and a deck house. One mud hold with a capacity of 10,000m³ is provided at the mid part of the vessel to obtain a moderate trim when the mud hold is loaded with soil and water.

The dredging system consists of two dredge pumps, two jet pumps, two trailing suction pipes, two drag heads (universal type and California type), two telescopic type over flow ducts and twenty conical bottom valves for dumping, a bow quick coupling for shore discharging and a bow nozzle for bow discharging (rainbow).

The dragheads, which can reach a maximum depth of 35m with trailing suction pipes on both sides of vessels, suck silt, mud, sand, and gravel with water using two dredge pumps (20,000m³/h x 23mTH x 2) driven through a clutch and a reduction gear box and controlled by dredge pump motors (max. 3,300kW).

The dredged materials are loaded into the hopper and can be concentrated in the hopper by an overflow duct that will result in highly efficient loading. The dredged materials are dumped by twenty conical bottom valves installed on the bottom of the hopper, or discharged through the bow coupling connected by rubber hoses to the shore, or discharged through the bow nozzle, which is also known as "rainbow" according to the configuration.

The vessel features the most advanced control system for dredging, the Dredge Control Monitoring System (DCMS), which monitors all dredging processes and enables automated operation. Two main diesel engines, two auxiliary generator engines, and one emergency generator engine are equipped in the engine room. Each main engine drives two main AC generators via a flexible coupling from one side, and a controllable pitch propeller via an air operated elastic friction clutch coupling and a reduction gear box from the other side.

The four main generators have adequate capacity for all loading conditions during the dredging operation cycle and bow discharge operation cycle with suitable reserve power. Two main generators cover all electricity service during navigation and one auxiliary engine during mooring or anchoring.

Principal Particulars
L (o.a.) x B x D x d: 127.5m x 26.0m x 10.7m x 8.65m (operation)
DWT/GT: 16,865 t/11,316t
Main engine: MAN B&W 8L48/60 x 2 units
Classification: BV
Free running: 15.57kt
Dredging: 2 - 5kt
Complement: 74

SSK completes 69,950DWT Panamax tanker *Recoleta*

Sasebo Heavy Industries Co., Ltd. (SSK) has completed the *Recoleta*, a Panamax tanker of 69,950DWT, for Empresa Naviera Petrolera Atlantica, S. A. (Argentina). The ship is the first 69,950DWT tanker series built by the company.

The cargo tank capacity of the vessel is the largest among the Panamax type of tanker. The cargo oil compartment consists of 14 tanks including slop tanks, which have double hull construction for both ship sides and bottom. The fuel oil tanks and diesel oil tanks are also the double hull type.

Lloyd's Ship Right Notations (SDA, FDA+, CM) are applied to ensure 25-year fatigue strength. Cargo oil pipes consist of three different lines, and these permit handling of maximum three different kinds of oils simultaneously.

A remote monitoring and controlling console is installed for handling the cargo. At the console, centralized operation of valves and cargo oil pumps with a self-stripping unit in cargo oil tanks can be achieved efficiently.

Deadweight tonnage is limited to 69,950mt due to Argentina Freeboard Requirements. The ship size is suitable to carry 75,000mt of cargo oil for other major shipping countries such as Liberia and Panama.

Principal particulars
L (b.p.) x B x D x d: 220.50m x 32.26m x 20.60m x 13.43m (summer draft)
DWT/GT: 69,950mt/42,014
Cargo tank capacity: 85,056m³
Main engine: B&W7S50MC-C x 1 unit
MCR: 11,060kW x 127.0rpm
NCR: 9,950kW x 122.6rpm
Speed, service: abt. 15.1kts
Classification: LR

Namura completes Aframax tanker for Seaway Navigation

Namura Shipbuilding Co., Ltd. has completed the 105,000DWT tanker, *Seapacis* (HN: 261), for Seaway Navigation Ltd. of the Valles Steamship Group (Valles), Hong Kong, at the Imari Shipyard & Works.

Namura has built up a long and close business relationship with Valles for about 40 years, and has constructed many handy bulkers and Aframax tankers. Namura has another Aframax tanker on its order book for the same group, which will be delivered in the latter half of 2006.

The naming and delivery ceremony for the *Seapacis* was held at the Imari Shipyard on Sept. 9 and attended by Mr. K. M. Koo, chairman of Valles, Mr. David Koo, managing director of Valles, Mrs. Gloria Massucci, spouse of Mr. Angelo Taraborrelli, COO of Italian oil giant ENI, and Mr. T. Namura, president of Namura together with other honorable guests. The vessel was named by Mrs. Gloria Massucci.

Principal particulars
L (b.p.) x B x D x d: 232.00m x 42.00m x 21.20m x 14.943m
DWT/GT: 105,747t/56,489t
Main engine: Hitachi B&W 6S60MC diesel x 1 unit
Output: 12,240 kW x 105.0rpm
Speed, trial max.: 15.35kt
Ship type: Crude oil carrier
Classification: ABS
Completion Sept. 9, 2005

Imabari completes product tanker *Orange Express*

Imabari Shipbuilding Co., Ltd. recently completed the 48,000DWT type product oil carrier, *Orange Express*, (HN: SZ232) for the owner, Paraiso Shipping S. A. at Iwagi Zosen Co., Ltd. of the Imabari group.

The *Orange Express* is the 13th vessel of the series that Imabari has developed as a flush decker type ocean going oil carrier with a single screw driven by a diesel engine suitable for carrying product oils and crude oils.

The vessel is the continuous flush deck type, and the main hull is the double hull type for ensuring the safety of the cargo compartment based on current regulations. The compartment is divided by 8 transversal bulkheads and 1 longitudinal center bulkhead into 16 cargo oil tanks, 2 slop tanks and 1 residue tank.

The vessel is designed with the deck transverse beam construction system for easy cleaning of the cargo tanks, providing owners and operators with superior cost performance. The vessel has 4 independent cargo oil main pipes and 4 cargo oil main pumps with a capacity of 1,250t/h at 120mTH, each driven by an electric motor located in the pump room and remotely operated from the cargo oil control room. The main system of cargo pipe lines is arranged to permit each cargo oil pump to take suction from either group of tanks and to discharge to the cargo oil main line.

The water ballast system has 1 main line connected with 1 water ballast pump of 1,500t/h at 30mTH, which is driven by an electric motor remotely operated from the cargo oil control room. The main propulsion unit is a Mitsui-MAN B&W 2 stroke, single acting type diesel engine which is highly reliable and easy to maintain.

The controlling and monitoring equipment for the propulsion plant and associated ship service systems are assembled and installed in the engine control room to obtain the same effect on the handling for both operations at normal control and local monitoring.

Principal particulars
L (o.a.) x L (b.p.) x B x D x d: 179.99m x 172.00m x 32.20m x 19.05m x 12.486m (ext.)
DWT/GT: 48,673t/28,799t
Cargo tank capacity: 57,289.382m^3 (100%)
Main engine: Mitsui-MAN B&W 6S60MC-C x 1 unit
MCR: 9,480 kW x 127 rpm
NOR: 8,060 kW x 120 rpm (85%MCR)
Boiler: Water tube type 30,000kg/h x 1.6MPa x 1 unit
Exhaust gas economizer: 1,150kg/h x 0.6Mpa x 1 unit
Main diesel generator: 550kVA x 900rpm x 3 units
Speed, service: 15.1kt
Endurance: abt. 17,600 nmiles
Complement: 25
Class: NK

Oshima completes 72,500 DWT caustic soda/bulk carrier

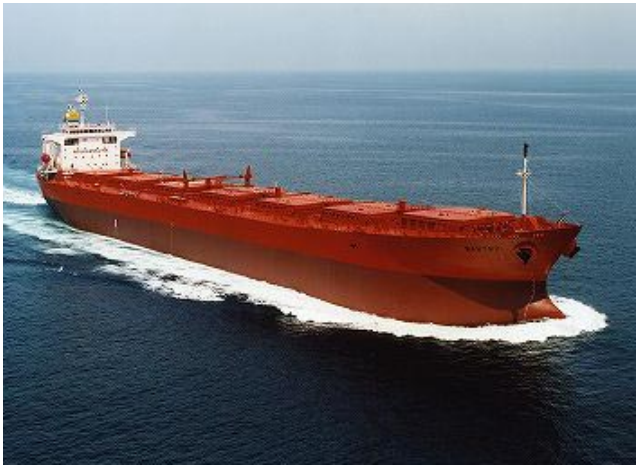
Oshima Shipbuilding Co., Ltd. has delivered the 72,500DWT caustic soda/bulk carrier (CABU), *Bantry*, to CABU V Investment, Inc.

The vessel is the fifth of the CABU series being built by the company. The *Bantry* adopts the Oshima High-Lift Ladder for increased maneuverability and less speed loss, with the same performance as the Schilling rudder. Flipper Fins are also used for improved propulsive performance and more economical transportation cost.

The CABU series can transport a variety of cargoes, i.e., ordinary cargoes such as coal, grain, ore, etc., and special cargoes such as bauxite, aggregates, limestone, D.R.I. and alumina. Furthermore, caustic soda as liquid cargo can be loaded in Nos. 2, 4, and 6 holds.

Submerged pumps are provided for Nos. 2, 4 and 6 cargo holds for unloading liquid cargo. Many special features for loading caustic soda are provided. The following items are added to the specifications of the conventional bulk carrier.

Double hull construction for the following items: IACS BC Safety, damage stability, maintenance and inspection work for side construction, and easy cargo handling and easy hold cleaning. Pump room in front of engine room. Duct keel for no FOT in double bottom neighboring caustic soda holds. Liquid tight side rolling hatch cover for caustic soda holds. Emergency towing system and safe access on hatch cover in accordance with IMO requirements for tankers.



Principal particulars

Hull No.: 10415
Ship type: Bulk Carrier
L (o.a.) x L (b.p.) x B x D x d: 225m x 216m x 32.26m x 18.9m x 13.922m
DWT/GT: 72,562t/38,883t
Main engine: Kawasaki MAN B&W 7S50MC-C x 1 unit
Service speed: 14.4kt
Class: DNV
Complement: 27
Completion: Aug. 11, 2005

Onomichi completes tanker, *Felicity*, for Reed Trading

Onomichi Dockyard Co., Ltd. has designed and built the 71,000DWT oil tanker, *Felicity*, for Reed Trading Ltd. (Liberia). The vessel is the fourth 70,000 class oil tanker of the single continuous decker type and built with double-hull and double-bottom structures. The vessel can carry about 82,000m^3 of crude oil, NGL, and dirty petroleum products.

The vessel has acquired the ABS-safe hull, and design assurance and construction accuracy during shipbuilding are managed by SHCM. Structural and fatigue strengths of the vessel are ensured to be more reliable. The main engine uses the MAN-B&W 6S60MC diesel engine that complies with NO_x discharge regulation. The fuel oil consumption is about 45.3t/day, and the endurance is 17,600 n. miles.

The vessel is also designed to be environment friendly and work load on the crew is reduced by fitting a port anti-pollution system at the stern tube seal and fitting a central cooling fresh water system.

Principal particulars

L (o.a.) x L (p.p.) x B x D x d: 228.56m x 218.00m x 32.20m x19.60m x 13.7m
DWT: 71,029t
GT: 38,842t
Main engine: MAN B&W 6S60MC (Mark-VI) diesel x 1 unit
MCR (kW x rpm): 12,240kW x 105 min^{-1}
NOR (kW x rpm): 11,020kW x 101.4 min^{-1}
Speed, service: 15.9kt
Complement 28 p
Classification BV
Handling gears
Cargo pumps: 2,000m^3/h x 125m t.h. x 3 units
Loading capacity: 82,013m^3
Completion: July 13, 2005

MES customer support system, e-GICS, accepted by over 600 vessels

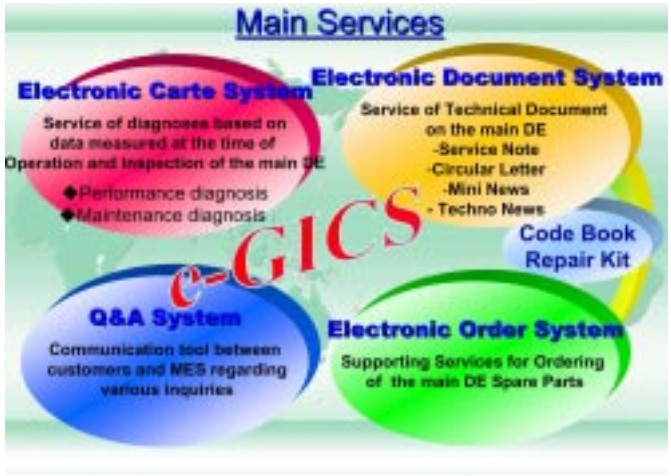
Mitsui Engineering & Shipbuilding Co., Ltd. (MES) and its subsidiary company MES Technoservice Co., Ltd. have begun sales of the electronic Global Internet Customer Support (e-GICS) System, which uses communication satellites and the Internet, to an enthusiastic customer response, with over 600 ships joining the e-GICS System in one year.

With the e-GICS System on the Internet, performance diagnosis of the main engine, maintenance diagnosis of the main parts, relevant technical information, consulting services with a Q & A function and engine parts "quick order" service are available to customers with Mitsui MAN B&W marine diesel engines.

The e-GICS System is based upon the Internet with ASP (Application Service Provider) system configuration so that users can easily access the system with a personal computer 'any place, anytime'. MES believes that such a convenient, reliable and efficient system will be a useful and highly valued tool for customers.

MES is a senior licensee of MAN B&W Diesel A/S and is the biggest marine engine manufacturer in Japan with a domestic market share of 40% of low speed marine main diesel. Technical know-how accumulated over the years has enabled MES to develop a comprehensive after-sales service system to analyze and diagnose the performance and maintenance data of engines in service. With advances in IT technology and the enhancement of the IT environment, data from ships in service, shipping companies, ship management companies and MES can be integrated on the Internet with MES to speed up and augment information exchange.

Many users appreciate the automatic diagnosis for quick response and the unified management of relevant information, which is a significant improvement on conventional maintenance and management methods. Now, MES is offering a 2-month free trial of the e-GICS System to allow customers a chance to experience the advantages under actual operating conditions.



Toyohashi completes 3,081TEU container carrier *Kota Kaya*

Toyohashi Shipbuilding Co., Ltd. completed construction of the 3,081TEU container carrier, *Kota Kaya*, for Pacific International Lines (Pte) Ltd. of Singapore in August.

The *Kota Kaya* can also carry reefer containers. The carrier has five holds forward of the engine room and one aft. Containers are stowed in 13 rows and five to eight tiers on hatches and ten rows and six tiers in the holds. 310FEUs of air-cooled reefer containers can be stowed in the hold and on the hatches. Dangerous cargo containers are stowed on hatches and in Nos. 1, 2, 3 and 4 holds.

The vessel is equipped with an auto-heel control system for safe operation, and a bow thruster for effective maneuverability in ports, and elevator for accessibility.

A low-speed, long-stroke, fuel-efficient main diesel engine MITSUI MAN-B&W 7S70MC-C, is equipped. The high performance propeller with a turbo ring reduces fuel oil consumption.

Principal particulars
L (o.a.) x L (b.p.) x B x D x d: 233.17m x 220.00m x 32.20m x 17.10m x 11.70m
DWT/GT: 39,932t/31,070t
Main engine: MITSUI-MAN B&W 7S70MC-C diesel x 1 unit
MCR: 21 735 kW x 91min^{-1} (rpm)
NOR: 19 562 kW x 88min^{-1} (rpm)
Speed, service 22.0kt
Complement: 25
Classification: NK

Young Spirit

Owner: Stevens Line Co., Ltd.
Builder: The Hakodate Dock Co., Ltd.
Hull No.: 803
Ship type: Bulk carrier
L (p.b.) x B x D x d: 167.00m x 29.40m x 13.70m x 9.56m
DWT/GT: 31,894t/19,781t
Main engine: Mitsubishi-6UEC52LA diesel x 1 unit
Speed: 14.4kt
Classification: NK
Completion: Oct. 31, 2005

Medi Chennai

Owner: K. T. M. Corporation S. A.
Builder: Kawasaki Shipbuilding Corporation
Hull No.: 1560
Ship type: Bulk carrier
L (o.a.) x L (b.p) x B x D x d: 189.90m x 185.00m x 32.26m x 17,80m x 12.50m
DWT/GT: 55,500t/31,000t
Main engine: Kawasaki-MAN B&W 6S50MC-C diesel x 1 unit
MCR: 8,200kW x 110rpm
Speed: 14.6kt
SClassification: NK
Completion: Oct. 11, 2005

Hatsu Shine

Operator: Hatsu Marine Limited
Builder: Mitsubishi Heavy Industries, Ltd., Kobe Shipyard
Hull No.: 1265
Ship Type: Container Ship
L (o.a.) x L (b.p.) x B x D x d: abt. 300.0m x 285.00m x 42.80m x 24.20m x 14.20m
DWT/GT: 78,693t/75,246t
Container carrying capacity: 7,024TEUs
Main engine: Mitsubishi-Sulzer 10RTA96C diesel x 1 unit
MCR: 54,900 kW x 100 rpm
Complement: 27
Classification: LRS
Completion: Sept. 27, 2005

New Spirit

Owner: New Spirit Shipping Inc.
Builder: Universal Shipbuilding Corporation
Hull No.: 012
Ship type: VLCC
L (o.a.) x B x D x d: 329.99m x 60.00m x 29.70m x 19.20m
DWT/GT: 298,972t/156,973t
Main engine: MAN B&W 7S80MC (Mk6) diesel x 1 unit
Speed, service: 16.0kt
Classification: BV
Completion: July 26, 2005

Ocean Lyra

Owner: Sealift Maritime, S. A.
Builder: Sanoyas Hishino Meisho Corporation
Hull No.: 1230
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 13.995m
DWT/GT: 75,656mt/38,877t
Cargo capacity: 89,201m^3 (grain)
Main engine: MAN B&W 7S50MC-C diesel x 1 unit
Output: 12,200ps
Speed, service: 14.5kt
Classification: NK
Completion: Oct. 26, 2005

The Port of Nagoya

The front photo shows the Tobishima Pier Container Terminal of Nagoya Port, the deep draft of which swiftly accommodate the overPanamax types. Situated at the innermost part of Ise Bay, which is located at the center of the Japanese Archipelago on the east coast facing the Pacific Ocean, the Port of Nagoya has steadily grown since it opened for international trade on November 10, 1907. The Port is now handling all types of cargoes. (By favour of the Nagoya Port Authority)