

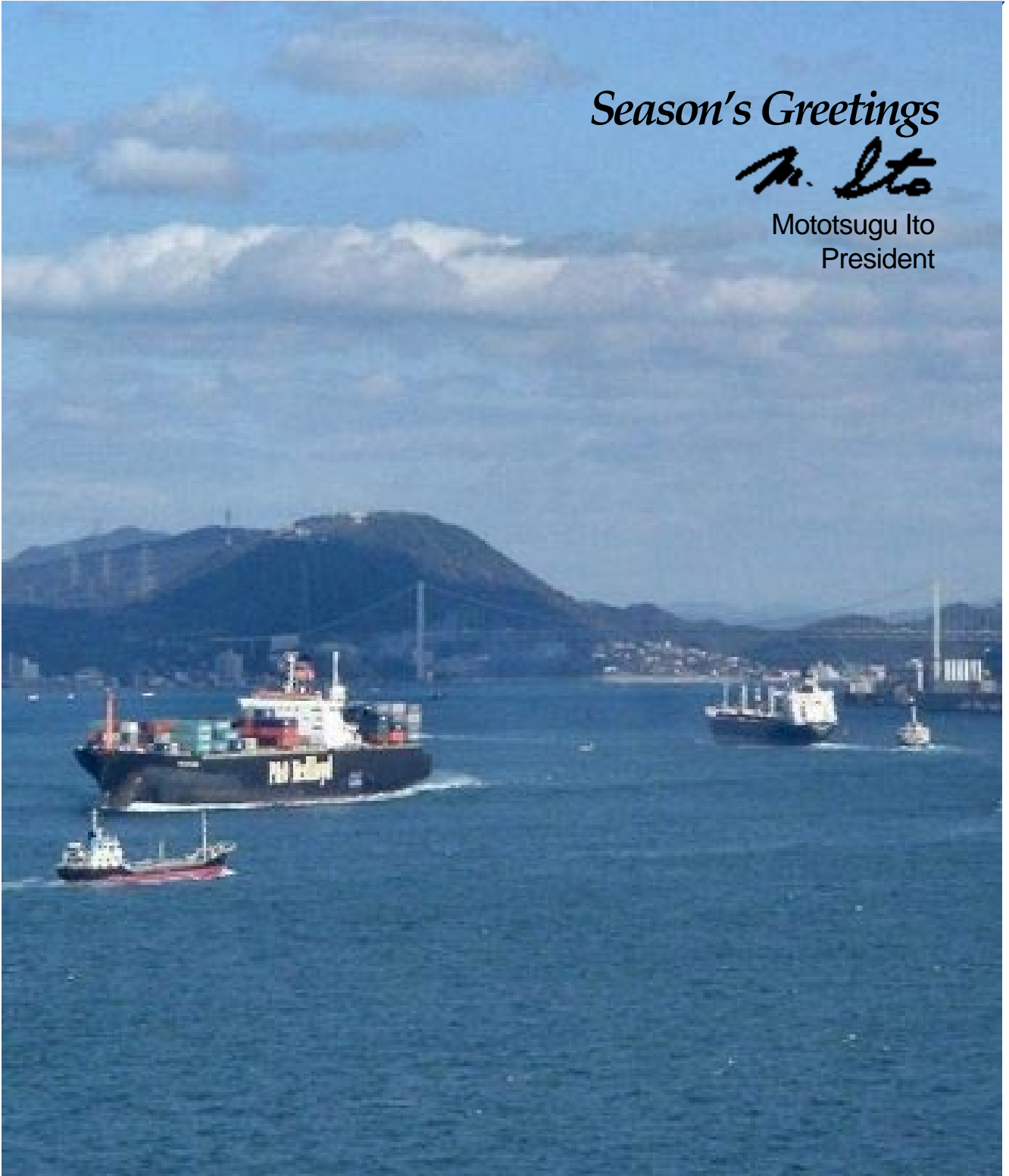
SEA-Japan

No. 320 Dec. - Jan. 2007

Season's Greetings

M. Ito

Mototsugu Ito
President



For further information please contact:

Website: <http://www.jsea.or.jp>

JAPAN SHIP EXPORTERS' ASSOCIATION

15-16, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 Tel: (03) 3508-9661 Fax: (03) 3508-2058 E-Mail: postmaster@jsea.or.jp

Naikai completes PCC, ROCKIES HIGHWAY, for River Spring Corp.

Naikai Zosen Corporation has completed construction of the pure car/truck carrier, ROCKIES HIGHWAY (HN: 696), for delivery to River Spring Corporation of Panama at the Setoda Works. The vessel can carry 4,300 vehicles including passenger cars, trucks, buses, and heavy-duty vehicles.

The ROCKIES HIGHWAY is a roll-on and roll-off type and has multi-car decks consisting of eight decks including the boarding deck in the upper level and three decks in the lower level. Of these 11 decks, two decks are the liftable type, and the Nos. 5 and 7 decks can accommodate heavy-duty vehicles including construction equipment. Other decks except these four decks are for passenger cars.

The boarding deck has two shore ramp doors at amidships and aft star-

board side, and ramps are provided inside the hold, through which vehicles can move to the place to be accommodated. Berthing and unberthing are smoothed with a bow thruster. Fuel oil tanks of the vessel are barriered with double hull construction to prevent marine pollution.

Principal particulars
 Length (o.a.): 183.00m
 Length (b.p.): 170.00m
 Breadth, mld.: 30.20m
 Depth, mld.: 28.80m (at upper deck)
 Draft, designed: 7.70m (full load)



DWT/GT: 12,828t/44,364t
 Car carrying capacity: 4,318 units
 Complement: 28
 Main engine: MAN B&W 6S60MC-C diesel x 1 unit
 MCR: 11,620kW
 Speed, service: 20.0kt
 Classification: NK
 Completion: Sept. 29, 2006

Sanoyas completes 3.9 million cubic ft chip carrier, SEA ODYSSEY

Sanoyas Hishino Meisho Corporation has completed the 3,900,000 cubic feet chip carrier, SEA ODYSSEY (HN: 1237), for delivery to Cygnet Bulk Carrier S. A. at the Mizushima Works and Shipyard. This vessel is the second vessel of this class and has a cargo hold capacity of 3.9 million cubic feet (about 111,000m³) developed by Sanoyas.

The SEA ODYSSEY is a flush decker, and the accommodation quarters and engine room are located aft.

Six cargo holds are arranged along the centerline. Cargo hold structure is designed and arranged for efficient loading and unloading of chips. This vessel has large volume cargo holds to load wood chips which have low density. Therefore, this vessel has a greater depth than the conventional bulk carrier of the same deadweight tonnage class.

This vessel has a 975t/h chip unloader, and three deck cranes and four hoppers are installed between the

equipment makes unloading work quick and safe. Hatch covers are the folding type driven by the electro-hydraulic system.

The main engine is a low-speed, super long-stroke, and two-cycle diesel engine, which is coupled with a highly efficient and large diameter propeller, for improved fuel consumption. The engine room meets the requirements for unattended engine operation.

Principal particulars
 L (o.a.) x L (b.p.) x B x D x d: 203.50m x 196.00m x 37.20m x 21.60m x 10.518m
 DWT/GT: 51,976mt/45,011t
 Main engine: MAN B&W 6S50MC-C diesel x 1 unit
 MCR: 12,400ps
 Cargo hold capacity (grain): 111,471m³ (3,936,587ft³)
 Classification: NK
 Complement: 28
 Completion: Sept. 7, 2006

hatches of the cargo holds. The main belt conveyor is laid fore-and-aft over the main deck, and a shuttle conveyor is equipped on the bow to unload wood chips from the ship onto a shore facility. The design of cargo-handling



Imabari delivers 99.347DWT ore carrier to Dyna Future Steam Ship

Imabari Shipbuilding Co., Ltd. delivered 99,347DWT bulk carrier, DYNA GLOBE (HN: 1444), to the owner, Dyna Future Steam Ship (HK) Limited at the Marugame Headquarters in Sept. 15, 2006. The vessel is the 5th of the 90BC class bulk carrier series developed by Imabari. The DYNA GLOBE was designed and constructed as an oceangoing bulk carrier suitable for carrying coal and iron ore cargoes in conformity to the requirements of IACS URS Bulk Carrier Safety.

The vessel carries cargoes produced by Australian mineral resources to major iron and steel producers in Japan, gaining a good reputation for its efficiency and safety in transport. The vessel has fewer cargo holds than the same class of bulk carriers. The six cargo holds are provided to shorten the cargo handling time. This led to the good evaluation by the owner and operator. The cargo hold compartment is designed as the conventional single hull construction having double bottom tanks with side hopper and top side tanks except the No. 6 cargo hold with double hull construction.

The hull construction is designed to be adaptable for loading coal and iron ore (S.F. = 17.0CF/LT homogeneously). Sufficient pumping-out ability assisted



by the gravity system can be demonstrated for shortened deballasting time to cope with the high-speed loading facilities at ports. As one of the measures for loading iron ore, special coating is applied to the hold surfaces for improved maintenance. The vessel is equipped with necessary outfittings and arrangements together with required devices to enter cargo-unloading berths in Japan.

The main engine is the Mitsui-MAN B&W 6S60MC (Mark VI), and both main engine and diesel generator engines comply with MARPOL 73/78 Annex VI Reg. 13

on NO_x emission. The Alpha cylinder lubricating oil system is applied to the main engine for improved maintenance.

Principal particulars

L (o.a.) x L (b.p.) x B x D x d : 249.94m
x 240.00m x 43.00m x 18.70m x
12.886m

DWT/GT: 99,347t/55,281t

Hold Capacity: 111,727m³

Main engine: MITSUI-MAN B&W
6S60MC (Mark VI) x 1 unit

MCR: 12,240kW x 105rpm

Speed, service: 14.5kt

Complement: 24

Classification: NK

Completion: Sept. 15, 2006

Sanoyas completes Panamax bulker, CMB SAKURA

Sanoyas Hishino Meisho Corp. recently completed the 75,765mt Panamax bulk carrier, CMB SAKURA (HN: 1243), for Ever Bright Shipping S. A. at the Mizushima Works and Shipyard. The

vessel is the 64th of the series of Sanoyas Panamax, and the 38th of the 75,500mt type, which was built by Sanoyas.

The CMB SAKURA has seven cargo holds with topside tanks and a hopper bottom for efficient loading and unloading of bulk cargoes. The living quarters and engine room are located aft. The hatch covers are the side rolling type driven by an electro-hydraulic motor and

chains.

The main engine is a low-speed, super long stroke, and 2-cycle diesel engine. The highly efficient and large diameter propeller assists in reducing fuel consumption.

Principal particulars

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: 75,765mt/38,891t

Cargo hold capacity: 89,201m³ (grain)
Main engine: MAN B&W 7S50MC-C
diesel x 1 unit

MCR: 12,200ps

Speed, service: About 14.5kt

Classification: NK

Complement: 25

Completion: Sept. 15, 2006



World's biggest class eco-friendly marine diesel engine delivered

Mitsui Engineering & Shipbuilding Co., Ltd. (MES) delivered the Mitsui-MAN B&W 12K98ME engine, the world's biggest electronically controlled marine diesel engine, to Kure Shipyard of IHI Marine United Inc. The engine will be installed on the biggest class container carrier in Japan of 8,000TEUs for operation by Kawasaki Kisen Kaisha, Ltd.

The engine was manufactured at a newly expanded Machinery Factory in Tamano Works of MES. This world's biggest class engine is about 13.5 meter high and weighs about 2,000 tons plus and has 12 cylinders each of which has 98cm diameter with

total output of about 100,000 ps.

In this new engine, conventional cam shafts are abolished, and the fuel injection, adjustment of exhaust gas timing and cylinder oil supply are made electronically, by which engine operation with lower revolutions has been achieved bringing about better ship's maneuvering in narrow waters and/or in harbors. Furthermore, this engine can reduce the consumption of fuel and cylinder oil, thus decreasing the emission of NO_x and soot. The engine, therefore, can be called an engine friendly to the global environment.

MES is committed to promote its



sales activity for large-scale marine diesel engine aggressively in the future.

Outline of Mitsui-MAN B&W 12K98ME

Output: 68,640 kW (about 100,000 ps)

Revolutions: 94rpm

Number of Cylinders: 12

Piston Diameter: 980 mm

Next Generation Type of Joystick Controlling System MACS-KM

--Launched Sales for Merchant Ships--

Mitsui Engineering & Shipbuilding Co., Ltd. and Kamome Propeller Co., Ltd. have jointly developed and commercialized a joystick controlling system MACS-KM for general merchant ships. The first MACS-KM was recently delivered and installed in Kakumei Maru owned by Tsurumi Sunmarine Co., Ltd.

This system was originally developed by MES as a second-generation type of joystick controlling system and has been installed in various governmental or public ships so far. Kamome has newly commercialized it for general merchant ships.

In this system, controllable pitch propeller, bow thruster and high-effi-

cient rudder are controlled integrally by using the joystick and rotation dial. Therefore, it became easy and simple to control the ship's motion (surging, swaying and yawing) accurately. This system enables easy berthing operation and helps to avoid the associated risk.

Taking this opportunity of the first delivery of this system, MES and KAMOME started to strengthen their sales activity, and they have already received many inquiries.

MES has already delivered its self-developed several type of joystick controlling system and installed it in many governmental ships, ocean research ships and so on which require the accurate maneuvering. The technology of MES for such system is highly appreciated by the clients.

On the other hand, KAMOME

combined this technology with their actuators (thruster, propeller etc.) to minimize the lead time for development. KAMOME will support MES to expand the sales of this new joystick controlling system MACS-KM for merchant ships by use of their many sales experiences and large sales network for small / medium size merchant ships.



Outlines of MACS-KM

Components:	Control Processing Unit:	1
	Master Control Panel:	1
	Wing Control Panel:	2
Control Function:	Manual Joystick mode	
	Easy to control the ship's motion (surging, swaying and yawing) manually.	
	Auto Heading mode: Heading is controlled automatically, and easy to control the ship's motion (surging and swaying) manually.	
	Individual mode: CPP, rudder and bow thruster are controlled individually by using joystick and rotation dial.	
Principal Dimensions of Kakumei Maru		
Type of ship:		Oil tanker
Gross Tonnage:		3,486t
Length overall:		104.1m
Width:		16.0m
Depth:		8.2m
Building Shipyard:	Hakata Shipbuilding Co., Ltd.	
Ship No.:		676
Main Engine:	Hanshin Diesel Works Ltd.	
	LH46LA 4,500 ps (3,309 kW)	
Propeller:	Kamome Propeller Company Ltd.	
CPC-95B/110F Diameter:		3.5 m
Bow Thruster:	Kamome Propeller Company Ltd.	
	TCA-80AMA Propulsion: 8 tons (78kN)	
Rudder:	Japan Hamworthy & Co., Ltd.	
	Schilling Rudder	

15% energy saving achievable**Miho and Niigata jointly develop advanced hybrid propulsion system**

Miho Shipyard Co., Ltd. has announced that the company and Niigata Power System Co., Ltd. have jointly developed an advanced hybrid propulsion system. The new propulsion system employs a contra-rotating propeller driven by an electric motor. This system can decrease energy consumption by about 15% and improve the ship maneuverability. Miho Shipyard installed the new system on the Nippon Maru, a round-haul netter, which was opened to the public at the No. 5 quay in the Shimizu Ejiri Fishing Port on Oct. 1.

The new hybrid propulsion system consists of an ordinary main diesel engine propulsion unit and an assist electric motor drive contra-rotating propeller unit. The two units are aligned on the ship centerline, and the contra-rotating propeller is built in the rudder and is independent from the main engine propulsion unit.

In general, the vortex flow generated by the main propeller disturbs propulsion efficiency. The new contra-rotating propeller cancels the disturbance of vortex flow to recover the thrust. The water tank tests using a scale model of the Nippon Maru revealed that the new propulsion system increased the propulsive efficiency by 12%. Depending upon the combined use or separate use of the main and assist propulsion units, additional energy saving of about 3% is possible. Total energy saving of about 15% can be expected.

The assist propulsion unit can turn up to 90 degrees to either starboard or the port. The combined use with a bow thruster enables various movements such as transversing moves. This facilitates berthing and unberthing in a port. Navigation with either the main or assist propulsion unit is possible. Due to this, the fail-safe system is provided in the event of main engine trouble.

The Ministry of Land, Infrastructures and Transport (MLIT) has supported development of the electric pro-



pulsion system to revitalize the coasting service, and such an electric propulsion system has been already installed on a "Super-Eco Ship." At present, the phase II development and verification tests are in progress. The phase II mainly targets the manpower saving system to help the crew in navigation, mooring, and cargo-handling work.

The passenger ferry, Miyajima Maru, which was the first Super Eco ship, was completed in January this year. The second and third Super-Eco ships will be completed in February and May 2007, respectively. For a vessel that will employ new technologies of the phase II, Ueno Transtech Co. exclusively engaging in domestic transport will develop a new 749GT tanker for liquid paraffin. The tanker is scheduled for completion in the end of 2007.

The Nippon Maru mounted with the new hybrid propulsion system is the third vessel following the Nippon Maru I and II, all completed by Miho Shipyard. These vessels are owned and operated by the Nippon Corporation jointly established by seven fishing companies.

Principal particulars

L (o.a.) x B x D: 75.97m x 13.40m x 7.50m/5.00m

GT: 1,817t (Int'l)/744t (Jpn)

Main engine: Niigata 6M G34H
(2,647kW) x 1 unit

Speed, service: 16.20kt

Complement: 23

To our readers

- Please notify us of any change in address by letter, telefax, or E-mail together with the old mailing label to ensure you continue to receive SEA-Japan.
- We welcome your comments about SEA-Japan. Please address all correspondence to the Japan Ship Exporters' Association (JSEA), or the Japan Ship Centre in London.
- Address (Tokyo): 15-16, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 / Tel: (03) 3508-9661 Fax: (03) 3508-2058
E-mail: postmaster@jsea.or.jp
- Address (London): 2nd Floor, 6 Lloyd's Avenue, London EC3N 3AX, UK / Tel: +44 (0) 20 7680 9456 / Fax: +44 (0) 20 7680 9416
E-mail: info@jsc.org.uk
URL: <http://www.jsc.org.uk>
Portalsite: maritimejapan.com

HOSHO MARU

Owner: Toyofuji Shipping Co., Ltd./
Miyazaki Sangyo Kaiun Co., Ltd.
Builder: Mitsubishi Heavy Industries, Ltd.
Hull No.: 1118
Ship type: Car and general cargo carrier
L (o.a.) x B x D x d: 165 m x 27.6 m x 24.15 m x 6.2m
DWT/GT: 5,490t/12,687t
Car carrying capacity: 2,000 cars
Main engine: Mitsubishi 7UEC52LSE diesel x 1 unit
Speed, service: 21.0kt
Classification: NK
Completion: Sept. 12, 2006

**OKLAHOMA**

Owner: Cygnus Transport Ltd.
Builder: Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
Hull No. 1323
Ship type: Tanker
L (o.a.) x L (b.p.) x B x D x d: 237.71m x 229.00m x 42.00m x 21.30m x 14.85m (Scantling)
DWT/GT: abt.105,400t/56,172t
Main Engine: Diesel United-Sulzer 6RTA58T diesel x 1 unit
MCR: 12,000kW x 103rpm
Speed, service: abt.14.8knots (full load at designed draft)
Classification: LRS
Completion: Sept. 15, 2006

**KEN REI**

Owner: Delica Shipping S.A.
Builder: The Hakodate Dock Co., Ltd.
Hull No.: 808
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: 31,866t/19,781t
Main engine: Mitsubishi-6UEC52LA diesel x 1 unit
Speed, service: 14.4kt
Classification: NK
Completion: Aug. 22, 2006

**ICE EXPLORER**

Owner: Fletching Corp.
Builder: Universal Shipbuilding Corporation (Tsu Shipyard)
Hull No.: 031
Ship type: Crude Oil Tanker
L (o.a.) x L (b.p.) x B x D x d (ext., summer): 274.200m x 263.000m x 48.000m x 22.400m x 16.035m
DWT (summer)/GT (Int'l): 146,427t/77,636t
Main Engine: Hitachi Zosen MAN B&W 7S65ME-C diesel x 1
MCR: 17,990kW x 92.0min⁻¹
Speed, service: 15.70kt
Classification: LRS (Finnish-Swedish ICE CLASS Hull 1A/Propulsion 1A)
Completion: Sept. 19, 2006

**SHOYO**

Owner/Charterer: Usui Kaiun Co., Ltd./Mitsui OSK Lines, Ltd.
Builder: Namura Shipbuilding Co., Ltd.
Hull No.: 265
Ship type: Bulk carrier
L (o.a.) x L (b.p.) x B x D x d: 224.99m x 217.00m x 32.26m x 19.50m x 14.078m
DWT/GT: 76,942t/40,608t
Main engine: Hitachi B&W 6S60MC (Mk VI) diesel x 1 unit
Speed, service: 14.1kt
Classification: NK
Completion: Sept. 6, 2006

**Kanmon Kaikyo Strait**

The Kanmon Kaikyo Strait is located between the northern tip of Kyushu Island and the western end of the Honshu island of Japan, serving as an important passage for 600 to 700 vessels of over 500GT a day. The strait is also known as a dangerous place, because of the narrowest passage of about 600m and strong tidal current. The Kanmon Kaikyo Traffic Advisory Service Center of the Japan Coast Guard watches over the vessels in the strait with highly efficient radar, AIS, and patrol boats, and provides passing vessels with information for safe navigation. KANMON MARTIS is the call sign of the center for radio communication. (Photo courtesy of Kanmon Kaikyo TASC)

