Only One to the Seas of the World

MITSUBISHI HEAVY INDUSTRIES, LTD.

Our Technologies, Your Tomorrow

PROJECT MEET NEWS

First issue February 2012

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On Publishing the First Issue of MEET NEWS

Mr. Hirofumi Tamehisa
President & CEO
Marine Machinery & Engine Division

Here, in the first issue of MHI MEET NEWS, let me send out a message to customers on behalf of the Marine Machinery & Engine Division.

To begin, I would like to extend my sincere gratitude to all of the customers worldwide who have interested in and purchased our products. And we are proud to inform you that we established our new organization, the Marine Machinery & Engine Division, in April, 2011. Since then we are concentrated to provide products and services that our customers can trust.

On the occasion of the establishment of this new organization, we are also publishing this first issue of MEET NEWS to deliver our schedules a better idea of who we are. MEET NEWS will be covering wide-ranging topics to help you understanding our businesses, activities, new products, and solution proposals more thoroughly and deeply. We would like to invite you to read through coming issues of MEET NEWS from time to time in the future.

Our company has recently completed a major reorganization. From here we will outline this reorganization and explain our current goals.

In April 2011 we started a fresh with the Marine Machinery & Engine Division. This restructure is planed to create two benefits. One is to make decisions and take action more promptly to meet changes of the business environment. The other is to consolidate the internal management resources of marine machinery and engines in order to prioritized businesses agendas such as solution business and global service network.

Until last March, our departments had compound organization including head office and branch offices, designing, manufacturing and after sales services.

Now, however, new environmental regulations, globalization, and reorganization of the shipbuilding market are changing shortly. Under these circumstances, it is critical that we understand and promptly respond to the changes of the market and support our customers by actively proposing new products and solutions. To assure that we formed our new Division by consolidating our related organizations within our company. In near future we will leverage the effects of our new reorganization by optimizing business processes.

Next we would like to introduce our three strategies of the Marine Machinery & Engine Division.

The first strategy is to promote proposal-based solution businesses covering a combination of wide-ranging marine machineries and engines of our products and knowledge. We are preparing various menus and making proposals to solve the customers encounter, such as new environmental regulations and the high fuel price. We call these solutions as Project MEET. We have already introduced this project through exhibitions and meetings in various places with our customers. We will also be issuing periodic updates on Project MEET in this newsletter to inform you our updated news.

Second, we will promote the globalization of our manufacturing operations. We are actively engaged in the licensed production of various types of Mitsubishi brand in Korea and China. We also take part directly in on-site production through joint ventures with partners in each country.

Third strategy is to strengthen after sales services. We are establishing a global service network handling all the Mitsubishi brand machinery products. Our goal is to propose a system with high reliably.

Future MEET NEWS will keep you informed of the latest developments in our globalize production and after sales services.

Project MEET

MEET 1 CO_2 Reduction
MEET 2 NOx, SOx Reduction
MEET 3 LNG as Fuel
MEET 4
MEET 5

Mitsubishi Marine **E**nergy & **E**nvironment **T**echnical Solution-System

For bright future by Mitsubishi environmental solutions

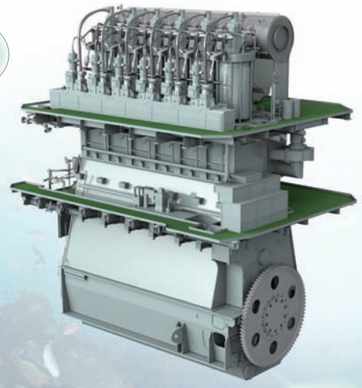
Our powerful and wide-ranging technical capabilities can provide innovative energy-saving and environment-friendly solutions. We can provide maximum benefit through combination of each solution, and furthermore, we can propose such solution with our single responsibility: from proposals of products as package through to production, commissioning and servicing.

MEET 1 World-class fuel-saving engine

UEC ECO-Engine

2% better fuel consumption

Both economical and reliable, our electronically controlled UEC Eco-Engine is the only large-sized 2-stroke diesel engine developed in Japan. Delivering top-class thermal efficiency and contributing to CO_2 reduction, the engine pushes performance to the limit while keeping you in compliance with recent environmental regulations.

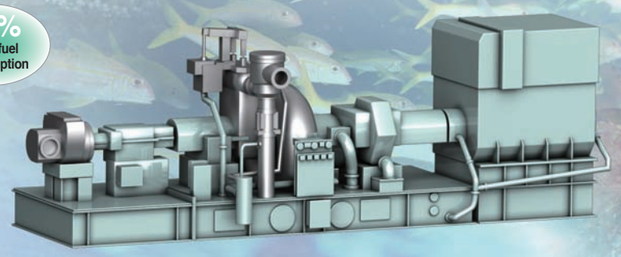


MEET 1 Energy-saving system, creates electricity from waste heat

MERS
Mitsubishi Energy Recovery System

10% better fuel consumption

MERS is a revolutionary energy saving system that recovers and reuses energy in the main engine's exhaust gas. The system can optimize thermal efficiency by automatically adjusting the engine output in accordance with the on board electricity demand.



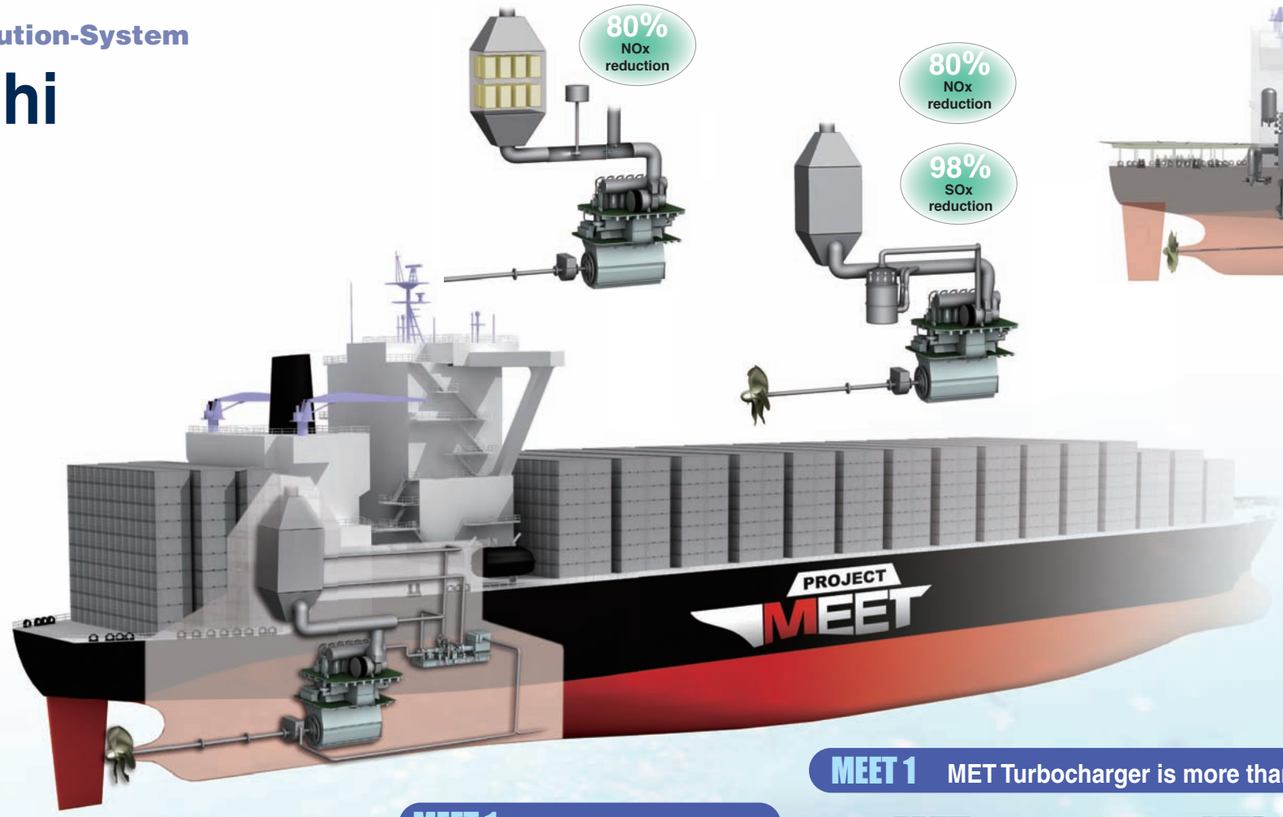
MEET 2 Using leading-edge clean technologies to clear IMO Tier III requirements

SCR
Selective Catalytic Reduction

This device removes more than 80% of nitrates from the low-temperature exhaust gases downstream of the urbocharger, while leaving main engine performance unaffected.

EGR
Exhaust Gas Recirculation

This EGR system uses a high-performance scrubber to efficiently remove SOx and PM, reducing NOx emissions by about 80%. Our newly developed scrubber is a also good solution to meet SOx emission rules.

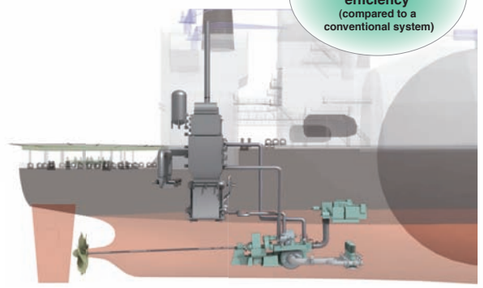


MEET 3 Advanced gas combustion propulsion plant

UST
Ultra Steam Turbine

The UST employs the extensive reheat regenerative cycle technology cultivated at power plants to realize high efficiency and improved reliability. It also achieves a higher economic potential than dual fuel diesel-electric propulsion plants, due to low power transmission loss.

15% better thermal efficiency (compared to a conventional system)

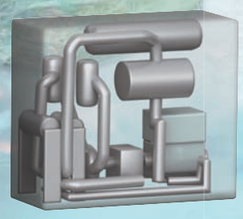


MEET 1 Generator driven by thermal discharge

ORC
Organic Rankine Cycle

This compact, energy-saving system uses a heat transfer medium (the same type as found on many air conditioners) to recover electricenergy from hitherto wasted thermal discharge.

2% better fuel consumption

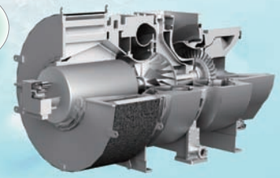


MEET 1 MET Turbocharger is more than just a turbocharger

Hybrid MET Turbocharger

The Hybrid MET Turbocharger is compact with a built-in generator. It is a revolutionary system that can generate electricity from rotational energy at the same time as supercharging. The Hybrid MET Turbocharger is suitable for retrofits so the fuel consumption of ships in service can be reduced.

2% better thermal consumption



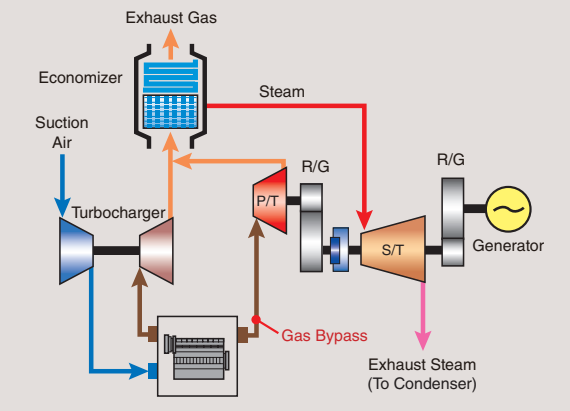
VTI Turbocharger
Variable Turbine Inlet

The VTI Turbocharger changes the turbine nozzle's exhaust gas passage area, increasing scavenging pressure while low load operation and improving engine performance.
The VTI Turbocharger is suitable for retrofits so he fuel consumption of ships in service can be reduced.

2% better fuel consumption

Topics

MERS(STG) * System applied to mega-container ships



Schematic diagram

Our STG system which was commercialized as an energy-saving, and environment-friendly solution system, is a hot-selling product with a market share of 90% or more (including partial supply and full package supply).
This system automatically controls the amount of extraction gas bypassed from the engine and output of the STG system according to the electric power the ship requires. One key benefit is optimum control of the plant heat efficiency.

The first STG system was installed in a 4,500TEU container ship built and commissioned into service by Maersk Line in March 2011. Now, less than a year later, 9 of 22 ships to be built in the same series are in service.
Likewise, the STG system is installed in 5 vessels now in service from a series of 16 larger 7450TEU container ships to be inaugurated (as of December 31 2011).
(Please see the photo of STG System and conceptional flow diagram)
Further, installation Triple-E, the largest, most efficient ship in the world has been decided.

STG

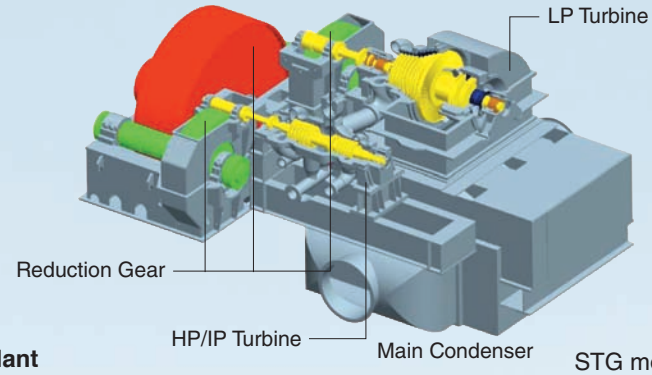
Ship with MERS

*** MERS: Mitsubishi Energy Recovery System STG: Super Turbo Generating System**

New-generation LNG Carrier Adopts the MHI UST*

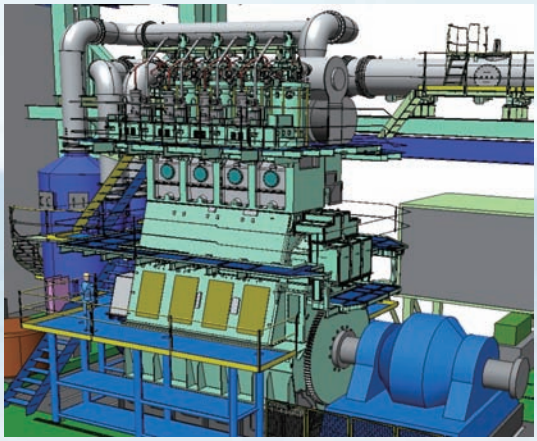
MHI's UST marine propulsion steam turbine is basically made up of a reheat type 2-cylinder cross compound impulse reaction. The design is combined of performance, structural, and material technologies on the cutting edge of marine propulsion steam turbines. The Sayaendo, the vessel adopting the MHI UST, achives 20% less fuel operation than a conventional vessel. The UST is basking in the limelight as a new-generation propulsion unit for LNG carriers. Installation on three carriers has already been decided.
The first unit is scheduled to complete in October, 2012.

*** UST: Ultra Steam Turbine Plant**



STG module

4UE-X3 test engine installed in MHI Kobe

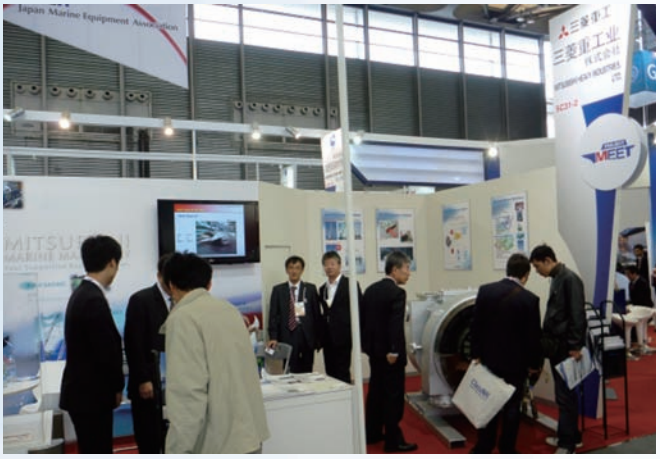


40UE-X3 Concept Design

The 4UE-X3 test engine soon coming to our diesel engine factory, will be manufactured with the 4UEC60LSE-Eco, a 4-cylinder electronic control engine with a cylinder diameter of 60 cm. Component technologies such as exhaust gas recirculation (EGR) and stratified water injection will be demonstrated on actual test equipment toward the IMO Tier Ⅲ regulation. Actual equipment will be verified by modifying the test machine into a gas engine capable of burning LNG, one of the most promising clean fuels. Facilities for training in the disassembly and maintenance of the main electronic control and mechanical diesel engine parts will be installed just next to the test.
Additionally, our company will further enhance its engineering development, manufacturing technology, and licensee support capabilities. We will be further expanding services to customers based on those capabilities as a licenser working in an integrated fashion on various stages of work from development and design to manufacturing.

Marintec China 2011

Marintec China 2011 was held in Shanghai, China from November 29 to December 2. MHI exhibited actual hybrid turbochargers and promoted its proposal-based solution business combining comprehensive MHI technologies. Numbers of interested visitors visited MHI's booth – 511 visitors, mainly people involved in marine industry – attested to the remarkable progress of the Chinese maritime and shipbuilding industries and exchanged opinions with MHI during this event.



MHI Booth

Seminar

On the second day, in the seminar room within the venue, MHI introduced its collaborative activities in China and proposed our latest solution for environmental regulation. The seminar drew a large audience well exceeding the room capacity of 100 people. The Chinese audience showed a deep interest in our MEET technology.

Top Executives of the China State Shipbuilding Corporation (CSSC) Visited MHI

Strengthening collaboration with China's largest shipbuilding group

On October 20, Tan President and seven representatives of CSSC, Hudong Heavy Machinery Co., Ltd, Jiujiang Shipbuilding, and Jiujiang Haitian Equipment Manufacture Co., Ltd. (JHT) (affiliated companies of CSSC) visited MHI to exchange opinions.
The collaboration with CSSC started on February 28, 2011, when MHI granted a production and sales license for auxiliary boilers to JHT, an affiliate of CSSC. After sharing an in-depth discussion on their current collaborations and future prospects, CSSC and MHI agreed to strengthen the relationship they have cultivated so far.

CSSC visitors and MHI Staff

MHI to License MET* Turbocharger Production and Marketing

To STX Metal of Korea, Forming Structure of Close Collaboration

Tokyo, November 29, 2011 - Mitsubishi Heavy Industries, Ltd. (MHI) and STX Metal Co., Ltd., a marine diesel engine manufacturer in Korea, signed an agreement under which MHI will license production and sales of its MET Turbocharger*, for marine diesel engines, in Korea. By establishing a collaborative relationship with STX Metal, MHI aims for further market penetration of the MET Turbocharger in Korea, the world leader in marine diesel engine production. STX Metal is expected to complete production of the first unit of the MET Turbocharger in 2012.
STX Metal is a core company of Korea's STX Group, one of that country's leading business conglomerates. It supplies turbochargers and engine parts to STX Engine Co., Ltd. and STX Heavy Industries Co., Ltd.

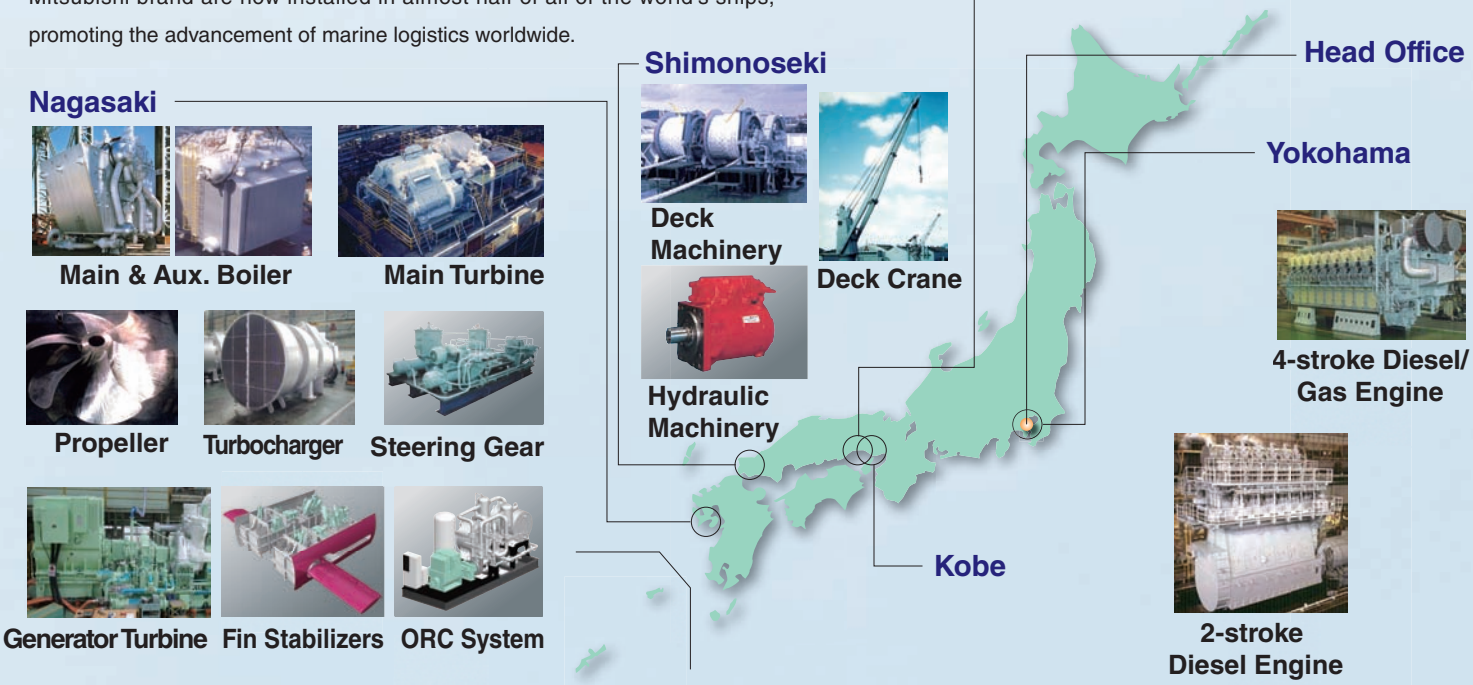
Signing Ceremony

*** MET: Mitsubishi Exhaust Gas Turbocharger**

Products Lineups and Global Development

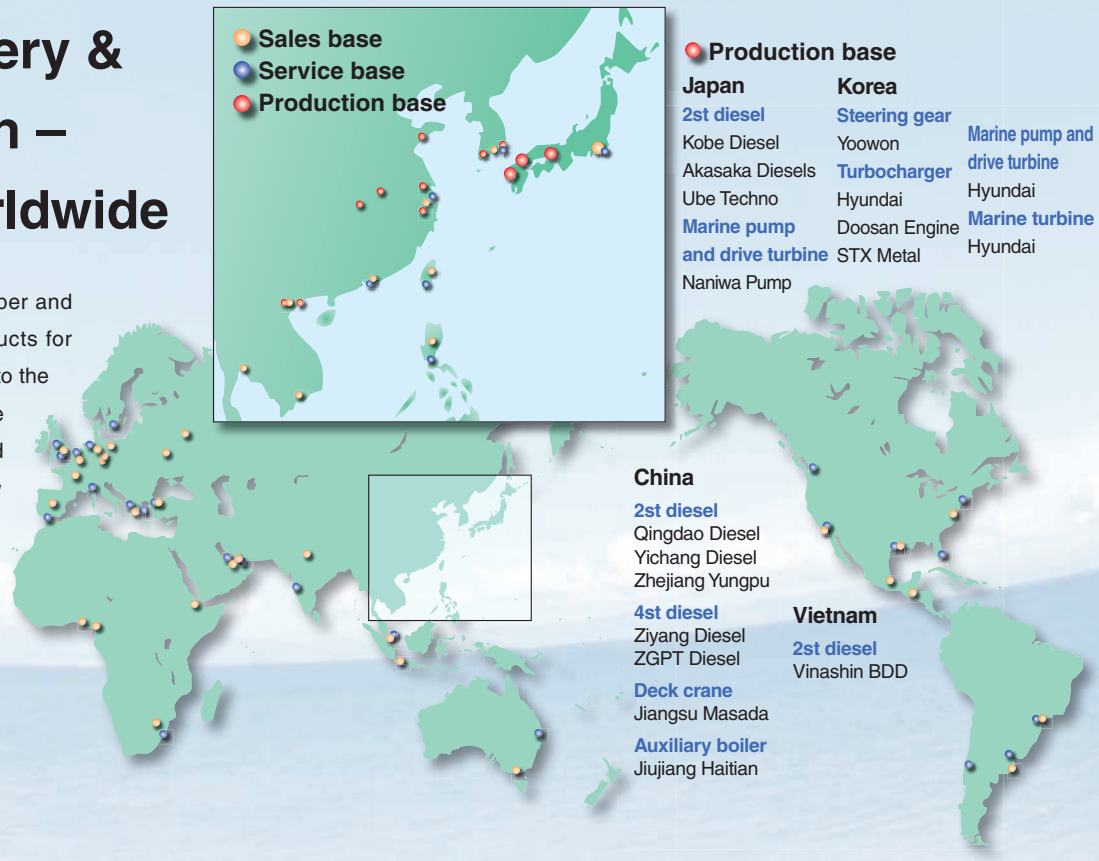
Product Lineups of the Marine Machinery & Engine Division

Our division has used its independent technologies to develop and offer various marine products of high quality and reliability. Marine products of the Mitsubishi brand are now installed in almost half of all of the world's ships, promoting the advancement of marine logistics worldwide.



Marine Machinery & Engine Division – Expanding Worldwide

Mitsubishi Heavy Industries, a developer and manufacturer of various marine products for more than 100 years, responds rapidly to the sundry needs of customers all over the world through its global networks and service operations. We are now aggressively developing production bases not only domestically but globally, with major positions in both Korea and China. We will continue to globalize our production operations in the coming years.



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