MITSUBISHI SHIPBUILDING CO., LTD. 5-33-11 Shiba, Minato-ku, Tokyo 108-8015, Japan Phone: 81-3-5476-6903 https://www.mhi.com/group/mhimsb/





# **COMPANY PROFILE**

## MOVE THE WORLD FORW ▶ RD MITSUBISHI

# HEAVY INDUSTRIES GROUP



## **Creating the Future in the Sea** Founded on Solid Technology

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Mitsubishi Shipbuilding Co., Ltd. covers the maritime-related businesses of Mitsubishi Heavy Industries (MHI) Group. We help propel forward the development of the maritime industry both in Japan and around the world through conventional shipbuilding and marine engineering, based on our deep technological expertise in shipbuilding and by leveraging the wide range of technologies across MHI Group.

Throughout our long history in shipbuilding, we have helped develop the maritime industry, including the establishment of maritime laws, regulations and standards, while manufacturing a broad range of ships and maritime products. By making full use of the foundational technologies that we have accumulated over many years and the integration capabilities that bring them together, we accommodate the needs of a variety of customers by adhering to a customerfirst philosophy and actively taking on new challenges.

We, Mitsubishi Shipbuilding, will create the future in the sea founded on solid technology.

#### Mission

We will create the future in the sea founded on solid technology

#### Vision

We aim to address needs and challenges in the maritime industry by proactively keeping new challenges, creating values, and aiding sustainable development, all based on our deep shipbuilding expertise.

#### Value

We value "safety," "reliable quality" and "timely response" in accordance with the MHI Group Global Code of Conduct.

		Nagasaki Shimonoseki
litsubishi	1857	Nagasaki Yotetsusho Foundry was establ (Origin of Nagasaki Shipyard & Machinery
o Shokai erations.		
	1884	Shipbuilding operations began. 1886: Co 1887: M
	1905	Kobe Shipyard of Mitsubishi Goshi Kaisha
na Dock d. was	1914	Hikoshima Shipyard of Mitsubishi Goshi k (Origin of Shimonoseki Shipyard & Machin
ished. ⁄okohama	1917	Mitsubishi Shipbuilding & Engineering Co
ard & y Works)	1934	Company was renamed Mitsubishi Heavy
	1935	Yokohama Dock Co., Ltd. merged with Mit
	1944	Hiroshima Shipyard began operations.
	1950	West Japan Heavy-Industr
	1952	Mitsubishi Shipbuilding & Engine
	1964	Mitsubishi Heavy Industries, Ltd. (Nagasi Machin
	1980	Yokohama Shipyard & Machinery Works v and in 1983 renamed Yokohama Dockyari
	1986	Split off Marine Division and renamed Hir
	2012	Kobe Shipyard & Machinery Works withdr submarines and underwater systems.
	2013	Transitioned to corporate Shipbuilding & Ocean De Shipyard & Machinery W Machinery Works were tr
	2018	Mitsubi

#### Locations

Tokyo (Head Office) 5-33-11 Shiba, Minato-ku, Tokyo 108-8015, Japan

Origin of Tsukun

began op

Yokoha Co., L

estal

Docl Machine

(Origin of

Shimonoseki Site (Enoura Plant) 16-1, Hikoshima Enoura-cho 6-chome, Shimonoseki-shi, Yamaguchi, 750-8505, Japan

Nagasaki Site (Main Plant) 1-1, Akunoura-machi, Nagasaki-shi, Nagasaki, 850-8610, Japan

Nagasaki Site (Koyagi Plant) 180 Koyagi-machi, Nagasaki-shi, Nagasaki, 851-0310, Japan

#### History

Hiroshima	ł	Kobe		Y	okohami	a
ished as Japan's first war y Works)	ship repa	air faci	lity.			
ompany was renamed Mit itsubishi Sha purchased N	subishi S Vagasaki	iha. Shipya	ard & Ma	ichinery	Works.	
a was established. (Origin	of Kobe S	Shipyaı	rd & Mao	chinery \	Works)	
Kaisha began operations. nery Works)						
., Ltd. was established.						
-Industries, Ltd.						
subishi Heavy Industries,	Ltd.					
	=					
ies, Ltd.	Centr Heavy-Ind	al Japa dustrie	an es, Ltd.	Ea Heavy-l	ast Japa ndustrie	n es, Ltd.
eering Co., Ltd.	Shin N Heavy-Ind	/litsubi dustrie	shi es, Ltd.	Mitsu Heavy-l	bishi Nir ndustrie	opon es, Ltd.
aki Shipyard & Machinery Works, Kobe Shipyard & Machinery Works, Shimonoseki Shipyard & ery Works, Yokohama Shipyard & Machinery Works, Hiroshima Shipyard & Engine Works)						
withdrew from new shipb d & Machinery Works.	uilding bu	usines	s, but co	ntinued	ship rep	airs,
oshima Machinery Works						
rew from merchant shipbuilding business, but continued to build						
evelopment Division overseen by Commercial Aviation & Transportation Systems Domain. Naval ship business at Nagasaki forks, ship repair business at Yokohama Dockyard & Machinery Works, and submarine production at Kobe Shipyard & ransitioned to Integrated Defense & Space Systems Domain.						
ishi Shipbuilding Co., Ltd.						



#### **Greetings from President & CEO**



Mitsubishi Shipbuilding (MSB) is a company established in 2018 that succeeded to Mitsubishi Heavy Industries' (MHI's) shipbuilding business which was founded in 1884. Since we started our business under the authentic name of Mitsubishi Shipbuilding, we have been actively engaged in providing marine engineering and services while building and delivering of a wide variety of ships. And today, the global and Japanese maritime industry are faced with complex multi-solution problems such as populational, environmental, geopolitical, and technological subjects. It's time for us to brave these challenges.

MSB will make every effort to solve such problems through a new shipbuilding business model. Complex problems require complex solutions. Those problems are not so simple that single organization can solve. We are going to tackle the problem with global cooperation. We will move forward and grow together with our business partners.

We will develop cutting-edge technology, as a densely outfitted ship we build in practice and as a green technology to utilize LNG (liquefied natural gas), ammonia and LCO2 (liquefied carbon dioxide). We will also incorporate innovative method for development, engineering and construction of ships, and will lead the collaboration with business partners.

We will keep growing to achieve future success and take actions with responsibility.

Safety first is our motto in all cases. We pursue to create value through reliable quality and timely response and contribute to making the shipbuilding business even more attractive.

President & CEO Shin Ueda

## Mitsubishi Shipbuilding's Commitment to SDGs

#### We have established the "2050 Vision" to address the SDGs through each business and product.

#### 2050 Vision 01

#### **Creating a Safe and Secure Future for Society**

Growing DX technology offerings and service businesses beyond the traditional borders of the shipbuilding industry. Building a sustainable relationship between people and the ocean to realize a circular society where all can live in comfort and peace.

#### Digitalization of the Maritime Industry Employing DX technology to create a safer and more efficient working environment for all involved

Related Products

Navigation Assistance System,

Hybrid Electric Propulsion Vessel

in the maritime industry

Related Products Marine Research Ship Cable Layers

#### 2050 Vision 02

### **Realizing Decarbonization of the** Maritime Economy

Leading decarbonization of ships and accelerating offshore utilization of green energy and carbon capture.

Promoting harmony between people and the environment, and realize a sustainable and resilient decarbonized society through maritime business.

Decarbonization of Ships	Expansion
Expanding the application of SOx scrubbers and LNG	Driving growth
fuel, and working toward the adoption of electric	of green
propulsion and ammonia fuel in the future	
Related Products	c

SOx Scrubber, Fuel Gas Supply System, I NG-fueled ferry

**Corporate Overview** 

## Organization

ubishi Shipb Co.. Ltd.

Company Name:	Mitsubishi Shipbuilding Co., Ltd	M
Establishment:	January 1, 2018	
Head Office:	5-33-11 Shiba, Minato-ku,Tokyo 108-8015, Japan	
President & CEO:	Shin Ueda	
Business Operations:	Ship engineering, design, manufacture and repair of ferries, cargo and passenger ships, RO/RO ships, special-purpose vessels, patrol vessels, etc.	
Capital:	3,000 million yen (MHI: 100%)	
Group Companies :	MHI Marine Engineering, Ltd. MHI Shimonoseki Engineering Co., Ltd.	

T- TOKYO S: SHIMON N: NAGASA





#### of Renewable Energy Utilization

in offshore wind farms and production fuels utilizing renewable energy

#### Related Products

Semi-submersible Floater for Wind Turbines

Implementation of CCS/CCUS

Advancing CO<sub>2</sub> storage and utilization from captured industrial emissions

#### Related Products

Onboard CO2 capture plant, Liquefied CO<sub>2</sub> Carrier

#### Please see the website for details



ding	Planning & Administration Department	Т	S	Ν	l
	Strategic Planning & Operation Office	Т			
	Business Department	Т	S		
	Procurement Department	Т	S	Ν	Ē
	Shimonoseki Quality Assurance Department		S		
	Nagasaki Quality Assurance Department	Т		Ν	Ē
	Marine Engineering Center	Т	S	Ν	Ī
	<ul> <li>Engineering Business Department</li> </ul>	Т			
	— Ship & Ocean Engineering Department	Т	S	Ν	Ē
	<ul> <li>Environmental Technology department</li> </ul>	Т		Ν	Ī
	Designing Department		S	Ν	Ē
	Shipbuilding & Repair Department		S	Ν	Ē
KI	Health, Safety & Environment Management Office		S	Ν	ī

# PRODUCT UNEUP

As the company that launched modern shipbuilding in Japan, MHI Group has always been at the forefront of shipbuilding and ocean development. Drawing on over a century of tradition and technological capabilities, the Group develops and builds an array of commercial ships and special-purpose vessels to meet a wide variety of needs. It is working to expand its engineering business in an effort to broaden its role on the world's seaways.

#### Commercial Ships

Ferries, Cargo-Passenger Ships Car Carriers, RO/RO Ships Patrol Ships Marine Resource Research ships Cable Layers Survey, Research, Training Ships

**Other Special Ships** 

#### **Engineering Business**

-Environment, Energy-related Technologies Shipbuilding Engineering Marine Solution Provider

#### Ferries, Cargo-Passenger Ships



oss Tonnage 17,114 GT	Speed 22.5 kn
ngth 199.9 m	Shipyard Shimonos
eadth 28.0 m	



#### HAMAYU Ferry

Gross Tonnage.... ... 15,515 GT Length ...222.5 m 25.0 m Breadth.

Speed .. ...28.3 knots Shipyard ... ....Nagasaki



#### SALVIA MARU Cargo-Passenger Ship

Gross Tonnage	6,099 GT	Speed	20.0 knots
Length	118.0 m	Shipyard	Shimonosek
Breadth	17.0 m		

#### **Commercial Ships**



#### **KITAKAMI** Ferry

Gross Tonnage 13	,694 GT
Length 1	192.5 m
Breadth	27.0 m

Speed			21.5	knots
Shipyar	t	Sh	nimor	noseki



#### YURIYA Cargo-Passenger Ship

Gross Tonnage	273 GT
Length	46.0 m
Breadth	8.0 m

Speed	. 23.0 knots
Shipyard S	himonoseki

#### RO/RO Ships, Car Carriers, Marine Resource Research Ships, Survey, Research, Training Ships



#### FUJIKI RO/RO Ship

Gross Tonnage 15,986 GT	
Length 167.0 m	
Breadth 30.2 m	

Speed ..... Shipyard ...... Shimonoseki



#### TRANS FUTURE 11 Pure Car Carrier

Breadth ..... 27.6 m

 
 23.0 knots
 Gross Tonnage
 28,775 GT
 Speed
 21.0 knots

 ...Shimonoseki
 Length
 165.0 m
 Shipyard
 Shimonoseki
 ..... 21.0 knots

#### Patrol Ships, Survey, Research, Training Ships, Cable Layers, Other Special Ships



ASAZUKI Patrol Vessel

Breadth ..... 16.8 m



#### KEYS Azalea

 Length
 82.4 m
 Shipyard
 Shimonoseki
 Length
 166.9 m
 Shipyard
 Shimonoseki

 Breadth
 18.2 m
 Breadth
 27.0 m
 27.0 m

HIMAWARI 8 RO/RO Ship



HAKUHO MARU Ocean Research Vessel

Gross Tonnage 3,991 GT	Speed16 knots
Length 100.0 m	Shipyard Shimonoseki
Breadth	



#### HAKUREI Marine Resource Research Vessel

Gross Tonnage	6,283 GT	Speed
Length	118.3 m	Shipyard
Breadth	19.0 m	



#### KAIMEI Seabed Research Vessel

...... Shimonoseki Length ....... 100.5 m Shipyard ....... Shimonoseki Breadth ..... 20.5 m

..... 12 knots



SUBARU Cable Layer Gross Tonnage ...... 9,557 GT Length ..... 123.33 m

Breadth ..... 21.0 m

Speed	13.2 knots
Shipyard	Shimonoseki



#### TENYO MARU Fisheries Training Vessel

Gross Tonnage	995 GT
Length	64.67 m
Breadth	11.90 m

Speed	12 knots
Shipyard	Shimonoseki



#### TERESA MAGBANUA Multi-Role Response Vessel

Gross Tonnage 2,265 GT	Speed
Length 96.6 m	Shipyard Shimonoseki
Breadth 11.5 m	



#### HAYAKAZE Fisheries Patrol Vessel

Gross Tonnage 56 GT
Length 26.0 m
Breadth 5.4 m

Speed	35 knots or more
Shipyard	Shimonoseki

#### Environment, Energy-related Technologies

Utilizing the experience and know-how cultivated through the building of a wide variety of ships, including liquefied gas carriers, we not only sell environmental system products, but also provide engineering services related to ship design, construction, and operation.

#### Ammonia Fuel Handling System (MAmmoSS®)

MAmmoSS® enables marine diesel engines to be fueled by ammonia which does not emit CO2 during combustion.





Please see the website for details

Please see the catalog for details

MAmmoSS® modules (image)

Ammonia-Fueled Bulk Carrier

#### LNG Fuel Gas Supply System (LNG FGSS)

LNG FGSS enables marine diesel engines to be fueled by LNG.



I NG Euel Tank

EGSS Module

#### SOx Scrubber System DIA-SOx®

DIA-SOx<sup>®</sup> is easy to apply to existing marine diesel engines.

#### DIA-S0x®C-series

Cylindrical type for small output engines. Main Engine Output 5-30 MW

#### • DIA-SOx®R-series

Rectangular type for large output engines Main Engine Output 30-75 MW



Please see the catalog for details







DIA-Sox®R—series

#### Shipbuilding Engineering and Digital Transformation Technologies

shipyards. Additionally, variety of design and analysis services, propeller and energy-saving devices can be provided. • Hull form development • Various model testing menus • Propeller • Energy-saving devices (Reaction Fin) • Concept / basic / detail design • Structural / vibration / ventilation analysis • 3D Modeling • Power Prediction & Lines Selection (MiPoLin®) system using the huge database of model test results. • Sales of Mitsubishi Advanced Total Engineering system of Ships (MATES®) and 3D-Viewers (HullViewer®/FitViewer®) Other than above, flexible solutions can be provided upon requests.



Wave Shape from Model Test



Liquefied CO<sub>2</sub> Carriers Concept

#### Navigation Assistance System

Through the partnership with Marindows Inc., maritime start-up focused on DX, Mitsubishi Shipbuilding is delivering safety and security to the domestic shipping industry. We are tackling agendas such as improving the working environment for seafarers and preventing accidents at sea.

#### Digitalization of ship's system

- Portable navigation assistance system "Navin"
- Based on electrical sea-chart "new pec\*", GPS position of own-ship & AIS information of other ships are provided.
- Route planning, route tracking, grounding alert and collision alert and collision avoidance assistance.
- Audio input/output
- Plans to be connected to cloud system and other on-board devices such as on-board dash cam for further enhanced functions.





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Cloud server on shore

- Utilizing advanced CFD analysis and vast model test records, energy efficient hull form will be developed and provided to our customer



Power Prediction & Lines Selection (MiPoLin®)



MATES® Machinery Room 3D Design



Power managemen system of electrified ship