

Business Segment Overview

Machinery



Business environment and performance

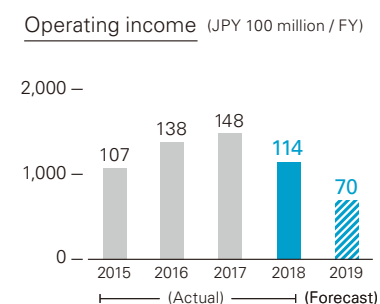
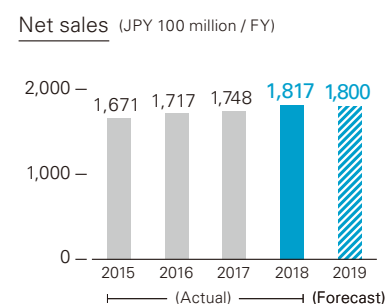
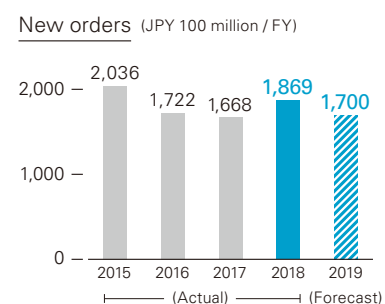
With regard to marine diesel engines, we secured sufficient work volume, although the environment for receiving new orders has been tough because the demand-supply gap of shipping fleet's tonnage has yet to be eliminated. The production volume was 146 engines/3,770,000 horsepower, reflecting an increase in the production ratio of large engines. It is expected to be around 3,880,000 horsepower in the next fiscal year. In addition, it was decided that a commercial machine of the large, low-speed marine diesel engine, which is equipped with an Exhaust Gas Recirculation (EGR) system to conform to the IMO NOx (Nitrogen Oxides) Tier III regulation and which will be adopted as well as last year. Regarding industrial machinery, the environment for receiving new orders has remained tough, although crude oil prices have been rising gradually and inquiries for reciprocating compressors, which are petroleum refinery equipment, have been increasing. On the other hand, we have received orders for axial compressors and top pressure recovery turbines from steel plants in Japan, and we are currently focusing our efforts on projects for India, where demand is strong.

Orders received for cranes increased significantly from the previous fiscal year, especially reflecting the strong demand in Southeast Asia and large projects for Vietnam. Because the demand is expected to remain strong, we have established a subsidiary that manufactures container cranes in Indonesia, which is close to the areas where the products are in demand. We have thus reduced not only the manufacturing costs but also the transportation costs in our efforts to improve our competitiveness.

In social infrastructure, both orders received and net sales increased significantly from the previous fiscal year, due in part to an order received for an elevated bridge for Sri Lanka and orders received for projects in Japan, including ones regarding large steel structures (immersed tunnel elements) and the restoration of bridges that were damaged in the 2016 Kumamoto Earthquake. We will continue to focus our efforts on this field because the ratio of maintenance projects, such as the renewal work of expressways (replacement of the floor slabs), is increasing among projects in Japan at present.

Concerning the LSS Service which has mainly after-sales services (Life-cycle Solution Service and Customer Oriented Service), orders received and net sales increased from the previous fiscal year. The reasons are as follows. (1) The shipping market is moderate recovery trend. (2) After-sales services (relocation, dismantlement and demolition work) have increased, associated with an increase in new crane installations. (3) Various renovation works have increased for stable operation.

Orders received increased by 20.041 billion yen (+12.0%) year on year, to 186.870 billion yen. This was due in part to the increase in orders received for marine diesel engines, container cranes, bridges, port structures, various industrial machinery, and after-sales services. Thanks to these products and businesses, net sales increased by 6.886 billion yen (+3.9%) year on year, to 181.733 billion yen. Operating income declined by 3.377 billion yen (-22.9%) year on year, to 11.394 billion yen.



Our Action Initiatives for innovation

Our Action Providing a new product portfolio with comprehensive cooperation agreements

Expansion of cooperation with MAN Energy Solutions SE

In May 2017, Mitsui E&S concluded a comprehensive cooperation agreement with MAN Energy Solutions SE (MAN-ES; formerly known as MAN Diesel & Turbo SE) to strengthen our cooperative relationship further. The two companies can look back at almost a century of successful cooperation in low-speed marine diesel engines, which is our core business. Further, we have also built a good cooperative relationship with them in recent years in fields such as medium- and low-speed diesel engines for onshore power plants. With this agreement, we will not only consolidate these cooperative efforts but also extend to other business fields such as the steam turbines and compressors.



Our Action Further strengthening and expansion of our crane business by establishing overseas production base

Establishment of a production base for container handling cranes in Indonesia

In October 2017, we established PT. MES Machinery Indonesia (=MMI), a subsidiary in Indonesia that produces container handling cranes, to strengthen and expand our crane business further. In 2015, we increased the production capacity of the Portainer by our Oita Works, from 22 units to 36 units annually. However, we decided to establish the subsidiary in Indonesia after determining that the further expansion of the production capacity is required to respond to strong demand, and to hedge exchange risks. The production capacity of MMI is planned to be 4 Portainer cranes and 30 Transtainer cranes annually.



PT. MES Machinery Indonesia

Our Action Providing advanced after-sales service

Conclusion of the group's first long-term, 20-year maintenance contract for marine main engines

In September 2017, MES Technoservice Co., Ltd., which is merged into Mitsui E&S Machinery in April, 2018, concluded a 20-year contract with MOL LNG Transport (Europe) Ltd. (MOL LNG) for the long-term maintenance of Mitsui MAN B&W marine diesel engines managed by MOL LNG, and began to provide services under the contract. CMAXS e-GICSX is also planned to be installed on the four target vessels. This will permit real-time abnormality diagnosis on the vessel as well as main engine performance status diagnosis on land, which is undertaken automatically by utilizing big data, allowing for the early detection of main engine abnormalities and the prevention of serious accidents.



LNG carrier

Message Message from the president of a new operating company

Mitsui E&S Machinery Co., Ltd. is developing marine diesel engines, various types of industrial machinery, social infrastructure facilities such as container cranes and bridges, and after-sales servicing of products. We seek to propose and provide services so that customers can use its products throughout their life cycle more economically and with a sense of security.

We are also responding actively to globalization and technical innovations, which are currently proceeding at a rapid pace. We are moving forward with many actions, including the start of overseas production of cranes, an early approach with eco-friendly dual fuel marine diesel engines including the world's first methanol- and ethane-operated two-stroke diesel engine, preventive maintenance systems for diesel engines, compressors for hydrogen refueling stations, automated container cranes and terminals, and the maintenance business of bridges and roads. With our motto, "Think from the customer's perspective and take actions with a sense of speed," we will provide more reliable, more economical and eco-friendly products and services.

Ryoichi Oka, President
Mitsui E&S Machinery Co., Ltd.