40th Anniversary - Special Issue

Mitsubishi Heavy Industries, Ltd.: Yesterday, Today and Tomorrow

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"Mitsubishi Heavy Industries Technical Review" is publishing its 40th anniversary issue this year, having made its first appearance in July 1964 just after Mitsubishi Heavy Industries, Ltd. (MHI) was reborn on June 1, 1964 following the consolidation of three companies*1. As a successor to the technical journals that had been issued individually by the three companies, "Mitsubishi Heavy Industries Technical Review" was launched with the aim of "presenting the results of internal experiments and research, new control techniques, etc. both inside and outside the company, seeking external understanding of MHI's technologies, providing our engineers with a means of research, and requesting people - whether or not connected with MHI - to give us their comments and guidance."

At the time when the Technical Review was first published, Japan was in the midst of its high economic growth era. In order to master aircraft, boiler, turbine and diesel engine manufacturing techniques, not to mention shipbuilding techniques, for which foreign licenses were inducted in quick succession, MHI was actively engaged in testing and research in various fields of industry. At the same time, the company was attempting to increase the number of its products and expand its business by enlarging the range of license induction from electrostatic precipitators to various types of industrial machines. Accordingly, the Technical Review carried articles on advanced technologies for products such as ships, boilers, and marine diesel engines, as well as basic technologies such as welding, and materials supporting such products.

Prior to and following the Tokyo Olympics Games of 1964 and the Osaka World Expo '70, Japan's traffic conditions worsened, giving rise to the need for dramatic changes. MHI introduced its technical capabilities to cope with the age of long bridges at home and abroad in some of the issues. The Technical Review also introduced MHI's products and technologies capable of meeting the needs of the times in issues such as the one dealing with pollution control equipment published in the 1970s, when air pollution was recognized as a social problem, and in other issues relating to resources and energies published around the time of the global oil crisis in 1973.

The purpose of this Special Issue "Mitsubishi Heavy Industries, Ltd.: Yesterday, Today and Tomorrow" is to discuss the past, present and future of MHI, which has been promoting Japan as a technology-based country.

During the 1950s and 1960s, Japan's manufacturing industry enjoyed enormous expansion through the introduction of new technologies developed in Western countries and new products created therefrom. In the 1970s, Japan's manufacturing industry established greater sophistication in production technology and applied technology to the point of depending less on foreign licenses and emphasising more independent technical development. In the 1980s, it was widely recognized that Japan had successfully caught up with the Western countries by consolidating its position as a technology-based country. However, the Japanese manufacturing industry did not yet have sufficient ability to lead the world in creating new technologies and products, and it was then subjected to severe price competition worldwide. For this reason, there were delays in technical innovation including basic and applied technologies and development/manufacture of new products. Therefore, at the end of the 20th century, the Japanese manufacturing industry became keenly aware of the necessity to recover its international competitiveness. The Japanese manufacturing industry must attempt to re-establish Japan as a technology-based country under the new slogan "Technical Creativity and Manufacture of Products."

Based on this awareness, MHI is making efforts to strengthen its technical and business abilities. Starting from the worldwide and long-term questions "What new products are required by society?" and "What technologies will make this possible?," MHI is intensifying its research and development activities.

In the medium-term business plan formulated at the end of 2001 (2002 business plan), MHI sets its sights on "Creation of technical abilities that can succeed under any conditions" and is now aiming to make itself technically capable of succeeding under any business circumstances during the next five to ten years. By establishing the four fields of "Energy," "Transportation & Distribution," "Environment & Social Facilities" and "Services" as prospective businesses and markets, and by mobilizing all its visible and invisible resources such as the wide variety of talents and technical abilities in its possession, MHI is investing actively in equipment, research and development for products of the next term and next generation, and is also giving strong encouragement to younger engineers. Moreover, in order to develop value creation-type technologies in the 21st century, MHI is putting to best-possible use the wide variety of revolutionary and advanced technologies in its possession.

In this Special Issue, MHI discusses the past, present and future of its major product businesses related to "Energy," "Transportation & Distribution," "Environment & Social Facilities." This Special Issue describes the firm resolution of MHI's entire personnel, reflecting upon the constant efforts and achievements of our predecessors made under the company's traditional management philosophy of "Recognizing its obligations as an innovative partner in society." With this in mind, I look forward to receiving continued encouragement and guidance from all concerned.

*1 Mitsubishi Shipbuilding & Engineering Co., Ltd., Shin Mitsubishi Heavy-Industries, Ltd. and Mitsubishi Nippon Heavy-Industries, Ltd.