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Highlights of General Heavy Machinery Manufacturers' Financial Results for Fiscal Year 2022

The following is Japan Credit Rating Agency, Ltd. (JCR)'s perception of the current status and highlights for rating concerning the financial results for the fiscal 2022 (FY2022) and earnings forecasts for FY2023 of Japan's six general heavy machinery manufacturers (collectively, the "Companies"): SUMITOMO HEAVY INDUSTRIES, LTD. ("SHI"), MITSUI E&S Co., Ltd. ("MITSUI E&S"), Hitachi Zosen Corporation ("Hitachi Zosen"), Mitsubishi Heavy Industries, Ltd. ("MHI"), Kawasaki Heavy Industries, Ltd. ("KHI") and IHI Corporation ("IHI").

1. Industry Trend

General heavy machinery manufacturers operate in wide-ranging business domains, which can be roughly categorized into: aerospace; ship and ocean; and land.

In the aerospace sector, the business environment of commercial aircraft-related businesses, which was strongly affected by the COVID crisis, is improving along with recovery of passenger demand. According to IATA (the International Air Transport Association), RPK (revenue passenger kilometers indicating passenger demand) showed a decrease of 65.9% in 2020, 58.4% in 2021 and 31.5% in 2022 each from 2019, pre-pandemic. In 2023, RPK is expected to fall 12.2% from 2019. In relation to this, demand for aircraft engine spare parts, which closely links to passenger demand, is showing rapid recovery. On the other hand, joint aircraft production products for The Boeing Company ("Boeing") handled by MHI and KHI is expected to take time for full swing recovery because production rates of core models, B777 and B787, have been substantially reduced due to the COVID crisis.

In the ship and ocean sector, harshness in orders intake environment for new ship building has been alleviated from the past; however, uncertainty still remains in the future. Performance of new ship building is susceptible to fluctuations in the market conditions such as exchange rates and steel prices; therefore, profit / loss still needs to be closely watched in the future. Having said that the Companies have downsized the business scale of the new ship building and risk of incurring a large amount of loss as before has become lower. In contrast, demand for ship diesel engines, which is the main product of MITSUI E&S, has been steady on the back of accumulated orders intake by the shipyards in Japan.

The land sector can be roughly divided into mass-production businesses with shorter lead time and order-based businesses with longer lead time. Turbocharger for vehicles of MHI and IHI; power transmissions/control equipment and construction machinery of SHI; and robots and two- / four-wheeled vehicles of KHI fall in the former. The latter include MHI's prime movers, and construction of different types of plants handled by each company. Among the products mentioned above in the mass-production businesses, demand for two- / four-wheeled vehicles is strong primarily in North America. Demand for construction machinery decreased in the China market due to the economic slowdown and lockdowns; however, it has been relatively steady in other regions. Demand for turbocharger for vehicles is sluggish due partly to the impact of production adjustments of vehicles caused by the semiconductor shortage and others. In addition, the Companies are working on price pass-on measures, production cost reductions and others as they are affected by the impact of rising raw material prices by and large. Contrarily, in the order-based businesses, the Companies concentrate the projects into their respective specialty areas and carry out strict control from the early stage; therefore, a large amount of loss, which affects the overall performance, will unlikely be incurred.

2. Financial Results

Orders received for FY2022 was 9,949.3 billion yen for the Companies combined. The four companies, except SHI and MITSUI E&S, made a year-on-year increase. The main factors of decrease for the two companies were that the results were based on nine-month period for SHI and the domestic subsidiaries due to change in the accounting period, and deconsolidation of MODEC, Inc., the major subsidiary, for MITSUI E&S. In order-based businesses, orders intake remained steady for prime movers, nuclear power, and incineration facilities, among others. Trends in demand for the mass-production businesses varied by product as mentioned above; however, orders intake was generally steady.

For FY2022, net sales (revenue for MHI, KHI and IHI) and operating income (figures derived from gross profit less SG&A expenses for MHI, KHI and IHI) of the Companies combined were 8,890.4 billion yen and 431.9 billion yen respectively. Although SHI's results were based on the nine-month period for FY2022, both net sales and operating income grew for the Companies combined. This was attributable to robust performance of the order-based businesses including the construction of plants, the mass-production businesses also increased sales of power transmissions/control equipment, robots and two- / four-wheeled vehicles. Performance of engines for commercial aircraft has also made a largely improvement contributed by sales increase of spare parts for aero engines in relation to the passenger demand recovery, cost reductions and others.

As regards to the financial structure of the Companies combined at the end of FY2022 (SHI at the end of December 2022, the five other companies at the end of March 2023), the equity ratio came to 29.9% and DER stood at 0.59x as opposed to 28.9% and 0.62x at the end of the previous fiscal year (equity attributable to owners of parent for equity capital of MHI, KHI and IHI). Although interest-bearing debt increased due partly to expansion of working capital requirements and others, financial structure improved as equity capital increased through profit accumulation and others (interest bearing-debt: based on the figure in the material of financial results briefing for KHI / corporate bonds, CP and borrowings for the five other companies).

3. Highlights for Rating

For FY2023 forecast, the five companies, except KHI, expect a higher operating income (business profit) (SHI also expects a higher operating income compared to the published comparable performance for twelve months covering from January 2022 to December 2022). Performance of the order-based businesses are expected to be steady by and large, and the mass-production businesses will also likely make certain progress in reflecting increased costs arising from rising raw materials prices, etc. in the sales prices. KHI expects to a decrease in business profit reflecting an increase in sales promotion expenses for two- / four-wheeled vehicles and other factors. The key factors by domain are as noted below.

In the land sector, trends in demand vary depending on the business categories and geographical locations of customers for the mass-production businesses. Therefore, JCR will check sales status by product. Due partly to economic slowdown in Europe and the U.S., future demand also needs to be watched for the products, which sales have been good so far. Particularly, in the case where a degree of dependent to certain products is high, changes in demand for such products may give a larger impact on the overall performance of a company. For the order-based businesses, JCR will continue to watch trends in orders intake and project management status. In the ship and ocean sector, some improvements are observed in the orders intake environment for new ship building due partly to turnaround in the shipping market. Having said that, for the second half of 2022 onward, a gap between new ship building prices, which has been hovering high, and the charter fees has become widened, and this has made ship owners taking cautious stance in ordering new ships. Going forward, attention needs to be paid to the trend in new ship building market. Lastly, in the aerospace sector, the key factor is still the trend in performance of commercial aircraft-related businesses. An improvement in profit and loss of the engines for commercial aircrafts is expected along with recovery of passenger demand. As for joint aircraft production products for Boeing, production rates remain low and attention needs to be paid to the recovery trend in the future.

JCR also watches the impact of active investment on financial structure. In the midst of rising momentum of decarbonisation around the world, the Companies are becoming more aggressive in making investments for reducing emission of carbon dioxide in producing and using existing products, and developing new businesses relating to clean energy, etc. Going forward, growth of investment burden may work negatively for the financial foundation; therefore, JCR will watch the balance between investment and operating cash flow.

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(Chart 1) Orders Received and Earnings

(JPY 100 mn)

		Orders Received	Net Sales	Operating Income	Net Income Attributable to Parent's Shareholders
SHI (6302)	FY2021	10,752	9,439	656	440
	FY2022 (nine-month period)	9,847	8,540	448	57
	FY2023 (F)	10,800	10,500	640	380
MITSUI E&S (7003)	FY2021	5,110	5,793	(100)	(218)
	FY2022	3,223	2,623	93	155
	FY2023 (F)	3,200	2,800	100	30
Hitachi Zosen (7004)	FY2021	6,779	4,417	155	78
	FY2022	7,375	4,926	200	155
	FY2023 (F)	5,300	5,200	220	120

		Orders Received	Revenue	Profit from Business Activities / Business (Operating) Profit	Gross Profit less SG&A Expenses	Profit (Loss) Attributable to Owners of Parent
MHI (7011)	FY2021	40,677	38,602	1,602	991	1,135
	FY2022	45,013	42,027	1,933	1,413	1,304
	FY2023 (F)	46,000	43,000	3,000	-	1,900
KHI (7012)	FY2021	16,021	15,008	303	421	126
	FY2022	20,374	17,256	823	815	530
	FY2023 (F)	19,000	19,000	780	-	470
IHI (7013)	FY2021	12,612	11,729	814	328	660
	FY2022	13,661	13,529	819	808	445
	FY2023 (F)	15,000	14,500	900	-	500

		Orders Received	Net Sales	Operating Income	Net Income Attributable to Parent's Shareholders
Total of the Companies	FY2021	91,952	84,992	3,432	2,223
	FY2022	99,493	88,904	4,319	2,649
	FY2023 (F)	99,300	95,000	-	3,400

Notes:

1. MHI, KHI and IHI have adopted IFRS. MHI and KHI's profit from business activities / business (operating) profit derived using the following calculation formula: revenue less cost of sales, SG&A expenses and other expenses, and add share of profit of investments accounted for using the equity method and other income. That of IHI was derived using the following calculation formula: revenue less cost of sales, SG&A expenses and other expenses, and add other income.
2. Since SHI has changed the end of accounting period from March 31 to December 31, and the results for FY2022 were based on the nine-month period for SHI and the subsidiaries in Japan. Figures in Total section was derived based on SHI's results for the nine- month period for FY2022.
3. For the total net sales, figures of revenue were used for MHI, KHI and IHI.
4. For the total operating income, the figures derived from gross profit less SG&A expenses were used for MHI, KHI and IHI.

(Source: Prepared by JCR based on financial materials of above companies)

(Chart 2) Financial Structure

(JPY 100 mn, %, times)

		Equity Capital	Interest-bearing Debt	Equity Ratio	DER
SHI	End-FY2021	5,513	1,112	50.4	0.20
	End-FY2022	5,692	1,607	49.5	0.28
MITSUI E&S	End-FY2021	570	1,423	14.0	2.49
	End-FY2022	1,064	1,415	24.2	1.33
Hitachi Zosen	End-FY2021	1,412	778	30.6	0.55
	End-FY2022	1,496	724	31.2	0.48

		Equity Attributable to Owners of Parent	Interest-bearing Debt	Ratio of Equity Attributable to Owners of Parent	DER
MHI	End-FY2021	15,766	7,349	30.8	0.47
	End-FY2022	17,409	7,424	31.8	0.43
KHI	End-FY2021	5,054	5,539	23.2	1.10
	End-FY2022	5,762	5,898	23.4	1.02
IHI	End-FY2021	3,821	3,722	20.3	0.97
	End-FY2022	4,312	3,936	22.2	0.91

		Equity Capital	Interest-bearing Debt	Equity Ratio	DER
Total of the Companies	End-FY2021	32,140	19,925	28.9	0.62
	End-FY2022	35,737	21,006	29.9	0.59

Notes:

1. End-FY2022: At the end of December 2022 for SHI and at the end of March 2023 for the other five companies.
2. Interest-bearing debt of KHI includes lease liabilities based on the figure in the material of financial results briefing. Interest-bearing debt of the five other companies includes corporate bonds, commercial paper and borrowings (excluding lease obligations, etc.).
3. Figures of Hitachi Zosen shown above reflect the evaluation of equity content of subordinated loans.
4. MHI, KHI and IHI have adopted IFRS.
5. Total of the Equity Capital: Sum of Equity Capital for the Companies under JGAAP and Equity Attributable to Owners of Parent for those under IFRS.

(Source: Prepared by JCR based on financial materials of above companies)

<Reference>

Issuer: SUMITOMO HEAVY INDUSTRIES, LTD.
Long-term Issuer Rating: A+ Outlook: Stable

Issuer: MITSUI E&S Co., Ltd.
Long-term Issuer Rating: BB+ Outlook: Stable

Issuer: Hitachi Zosen Corporation
Long-term Issuer Rating: BBB+ Outlook: Positive

Issuer: Mitsubishi Heavy Industries, Ltd.
Long-term Issuer Rating: AA- Outlook: Stable

Issuer: Kawasaki Heavy Industries, Ltd.
Long-term Issuer Rating: A Outlook: Stable

Issuer: IHI Corporation
Long-term Issuer Rating: A- Outlook: Positive

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