Securities Code: 6302

The 123rd Interim Business and Financial Report April 1, 2018 to September 30, 2018

#### **To Our Shareholders**

I would like to express our sincere gratitude for your continued support and patronage. I am pleased to present our business and financial report for the first half of the 123rd fiscal year (from April 1 to September 30, 2018) as follows.

#### **Business Principles**

#### **Corporate Mission Statement**

We will aim to become a machinery manufacturer that continues to provide excellent products and services to the world. With integrity being a key principle in the Group, we will contribute towards society by gaining high respect and confidence from all stakeholders.

#### **Our Values**

#### Customer First:

We exceed customer expectations by providing sophisticated efficient products and services, giving the utmost consideration to their needs and requirements.

Embrace Changes:

We will continue to drive and embrace changes without accepting the status quo.

Commitment to Technology and Innovation:

We are passionate about contributing to society by further developing our unique, in-house technologies.

**Respect People:** 

We will nurture an organizational climate that fosters mutual respect, tolerance and learning for growth.

#### Business Performance during the Half-Year Period under Review

During the six-month period ended September 2018, global machinery demand showed an upward trend as improved corporate performance led to a pickup in capital investment in Japan, production in the manufacturing sector in the United States continued to recover on a rebound in domestic and foreign demand and industrial production in China remained solid.

In light of this operating environment, the Sumitomo Heavy Industries (SHI) Group pursued priority measures including proactive investments for growth such as M&A and capital investment, improvement of operational quality, and the active promotion of corporate social responsibility (CSR).

As a result of our efforts, orders and net sales for the six-month period rose in almost all segments, resulting in a 20% yearon-year increase in orders, to ¥461.4 billion, and 19% growth in net sales, to ¥423.7 billion, both of which were record levels. In terms of profit, operating income rose 18% year on year, to ¥34.1 billion, ordinary income was 14% higher, at ¥33.1 billion, and net income attributed to shareholders of the parent company grew 8%, to ¥21.4 billion.

Given these first-half results, we have decided to increase the dividend by  $\pm 10$  per share<sup>\*1</sup> from the year-earlier period and pay an interim dividend of  $\pm 50$  per share.

#### Progress under the Medium-Term Management Plan 2019

The SHI Group began operating under the Medium-Term Management Plan 2019 from April 2017. The plan sets finalyear targets of net sales of \$800.0 billion, with operating income of \$60.0 billion and ROIC<sup>\*2</sup> of at least 7.5%, for the fiscal year ending March 31, 2020.

To achieve these financial targets, the plan designates five basic concepts of achieving "Steady Growth," converting to become a "High Profit Company," creating first-class products and services through "A Tireless Commitment to Improving Operational Quality," actively participating in "M&A and Formation of Business Alliances," and "Actively Pursue CSR Activities." We will strive to contribute to society by providing first-class products and services at the global level, thereby gaining respect and confidence from our stakeholders.

To achieve "Steady Growth," we are maintaining and strengthening our competitiveness by bringing forward our initial plan for capital investment, investment in development, and the securing of human resources where necessary, in line with

the functions of each business. Regarding the transformation to a "High Profit Company," we have set targets for all operating segments, including the Group's leading segments of Machinery Components and Precision Machinery, as we shift toward a high-profitability earnings structure. To create first-class products and services through "A Tireless Commitment to Improving Operational Quality," we are strengthening our business in the post-sales market, while at the same time pursuing projects involving information and communication technology (ICT) and the Internet of Things (IoT). In addition, our efforts to participate actively in "M&A and Formation of Business Alliances" included the acquisition of the Lafert Group, an Italian manufacturer of industrial motors, making it a subsidiary in June 2018. This made it possible to expand the business scope and strengthen the electric motors and controls areas of the Machinery Components segment, raise our presence in the European market, and offer uniquely competitive products.

With regard to our efforts to "Actively Pursue CSR," we are implementing measures as planned in the four key areas of "products and services," the "environment," "society," and "human resources," while striving to disclose information externally and instill the significance of CSR internally. Specifically, we engage in dialog with institutional investors to understand their expectations for our CSR and proactively disseminate information, while internally, the president engages in dialog with business managers to ensure a common understanding of the significance of businesses in terms of CSR and to enable those business managers to explain that significance to employees.

In the key area of human resources, our efforts to promote diversity resulted in our receiving "*Kurumin*" accreditation in March 2018 under the Act on Advancement of Measures to Support Raising Next-Generation Children, as a company supporting child-rearing. This fiscal year, we also began holding workshops led by women to consider how to promote active participation by women, with the aim of creating comfortable workplaces for female employees. In addition, we are working to create an environment in which male employees can actively participate in child-rearing by holding seminars on child-rearing leave for male employees and encouraging them to take child-rearing leave.

We will continue to strive to improve employees' work-life balance by reducing working hours and introducing a fullscale program for working from home, to create a workplace that gives each employee a sense of energy and vitality.

Regarding our outlook going forward, retail consumption and capital investment in Japan has recently been solid against a backdrop of favorable corporate earnings, and overseas, the U.S. economy is strong. However, trade friction between China and the United States is creating a growing sense of uncertainty regarding the future economic outlook. Given this situation, we will steadily implement the management strategies outlined in the Medium-Term Management Plan 2019, while working to contribute to social development by offering first-class products and services.

Going forward, the SHI Group will continue striving to contribute to the development of society through the provision of first-class products and services. The continued support and cooperation of our shareholders is greatly appreciated.

- \*1 The Company carried out a one-for-five common share consolidation effective October 1, 2017. The fiscal 2017 interim dividend was ¥8 per share with a record date of September 30, 2017, which was prior to the share consolidation. This translates to an interim dividend of ¥40 per share on a post-share-consolidation basis.
- \*2 ROIC (return on invested capital) is the after-tax profit margin on invested capital, showing the amount of profit generated as a percentage of invested capital (the total of shareholders' equity and interest-bearing debt), and indicating whether profitability corresponds to the cost of capital.

Shunsuke Betsukawa President and CEO

# Feature 1

# **CFB Boiler**—Environmentally friendly biomass-fueled power generation plant

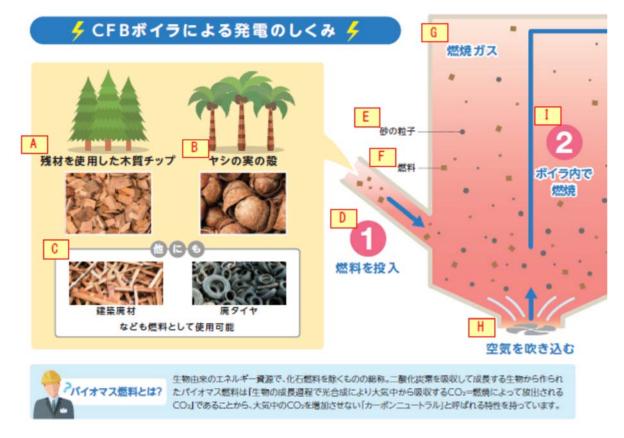
SHI offers Circulating Fluidized Bed (CFB) boilers as biomass-fueled power generation plants with a reduced environmental burden. Conventional thermal power generation uses fossil fuels, but CFB boilers can be adapted to a wide variety of fuels including biomass. This technology makes effective use of resources and helps to control global warming.

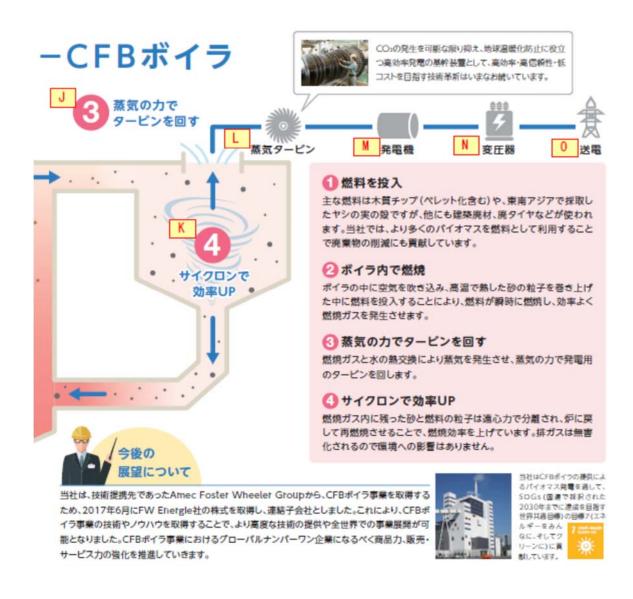
# How CFB boilers generate electricity

- A Wood chips from leftover lumber
- B Coconut shells
- $\overline{C}$  Also, building waste materials and discarded tires can be used as fuel.
- D (1) Adding fuel
- E Grains of sand
- F Fuel
- G Combustion gas
- H Air intake
- (2) Combustion in the boiler
- (3) Steam power turns the turbine
- K (4) Cyclone raises efficiency
- L Steam turbine
- M Power generator
- N Transformer
- O Power transmission

環境にやさしいバイオマス発電設備

当社では、環境負荷の低いパイオマス発電プラントとしてCFBボイラを提供しています。CFBとは、Circulating Fluidized Bedの略で、日本語では循環流動層といいます。従来の火力発電は化石燃料を使用していますが、CFBボイ ラはパイオマスを含む幅広い燃料に対応。資源の有効活用だけでなく、地球温暖化の抑制にも貢献する技術です。





### <Steam turbine>

We will continue to pursue technological innovation that aims to increase efficiency and reliability and reduce costs, as core systems for highly efficient power generation that limit  $CO_2$  emissions to the extent possible and helps to prevent global warming.

# (1) Adding fuel

The main fuels are wood chips (including in pellet form) and coconut shells harvested in Southeast Asia, while building waste materials and discarded tires can also be used. SHI is working to reduce waste materials by using a wider range of biomass as fuel.

### (2) Combustion in the boiler

By adding fuel to a boiler pulling in air with grains of sand heated to a high temperature, fuel burns quickly, and efficient combustion gas is emitted.

### (3) Steam power turns the turbine

Steam is produced from the combustion gas and water heat exchange, and the force of this steam turns the generator turbines.

### (4) Cyclone raises efficiency

The sand and fuel particles that remain in the combustion gas are removed using centrifugal force and returned to the furnace, increasing combustion efficiency. The exhaust gas is detoxified and does not impact the environment.

#### What is biomass fuel?

Biomass fuel refers to energy resources derived from living things other than fossil fuels. Biomass fuel is made from living things that absorb  $CO_2$  as they grow, and are seen as being carbon neutral because the amount of  $CO_2$  they absorb from the atmosphere through photosynthesis in the growth process is equal to the amount of  $CO_2$  emitted when they are burned, and do not increase the amount of  $CO_2$  in the atmosphere.

#### **Future developments**

SHI purchased the shares of FW Energie B.V. in June 2017, making it a consolidated subsidiary, to acquire the CFB boiler business of our technology partner, Amec Foster Wheeler Group. Acquiring the CFB boiler business' technology and expertise will allow us to provide more advanced technologies and develop the business globally. We will strive to strengthen our capabilities in products, sales, and service to become the world's No. 1 company in the CFB boiler business.

By supplying CFB boilers for generating power using biomass, SHI contributes to Goal 7 of the Sustainable Development Goals (SDGs). (SDGs are globally shared targets adopted by the United Nations for achievement by 2030; Goal 7 is "Affordable and Clean Energy.")

## **Interim Consolidated Financial Statements**

(Amounts less than	100 million yen	have been	rounded off)
		(D;	ling of you)

	(Billions of yen)
End of FY2017 As of March 31, 2018)	FY2018 End of interim period (As of September 30, 2018)
551.6	565.8
88.2	95.4
269.4	253.8
167.4	188.6
26.5	28.0
343.3	363.8
239.6	244.1
50.3	65.7
53.3	54.0
894.8	929.6
449 9	476.0
	192.6
	53.7
	67.9
	161.8
445.0	453.6
369.4	385.3
61.6	53.4
14.0	14.9
894.8	929.6
-2.7%	-3.0%
48.2%	47.2%
	As of March 31, 2018) 551.6 88.2 269.4 167.4 26.5 343.3 239.6 50.3 53.3 894.8 449.9 184.2 42.5 64.2 158.9 445.0 369.4 61.6 14.0 894.8 -2.7%

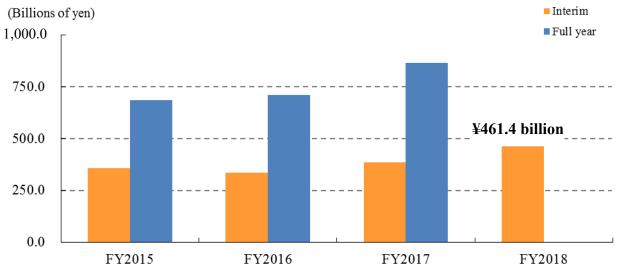
\*Items for the end of FY2017 have been reclassified as per the classifications used for the end of the interim period of FY2018.

Interim Consolidated Statements of Income (Summary)		(Billions of yen)
	FY2017	FY2018
Account Items	Interim period	Interim period
Account Items	(April 1, 2017 to September 30,	(April 1, 2018 to September 30,
	2017)	2018)
Orders	385.8	461.4
Net sales	355.3	423.7
Operating income	29.0	34.1
Operating income ratio	8.2%	8.0%
Ordinary income	28.9	33.1
Ordinary income ratio	8.1%	7.8%
Extraordinary gains (losses)	(0.1)	(0.2)
Income before income taxes	28.8	32.8
Net income attributed to shareholders of	19.8	21.4
the parent company	19.8	21.4
Ratio of net income attributed to	5 60/	5.6% 5.0%
shareholders of the parent company	5.078	3:078

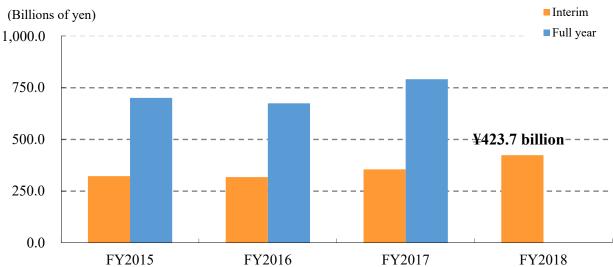
Interim Consolidated Statements of Cash Flow (Summary)		(Billions of yen)
	FY2017	FY2018
Account Items	Interim period	Interim period
Account Items	(April 1, 2017 to September 30,	(April 1, 2018 to September 30,
	2017)	2018)
Cash flows from operating activities	45.0	51.8
Income before income taxes	28.8	32.8
Depreciation	10.7	12.6
Working capital	15.4	14.6
Others (taxes etc.)	(9.8)	(8.3)
Cash flows from investing activities	(25.2)	(34.7)
[Free cash flow]	[19.9]	[17.1]
Cash flows from financing activities	(18.7)	(7.9)
Net increase (decrease) in cash and cash	0.0	7.6
equivalents	0.0	7.6
Cash and cash equivalents at end of the	61.1	93.1
period	01.1	

# **Consolidated Financial Highlights**

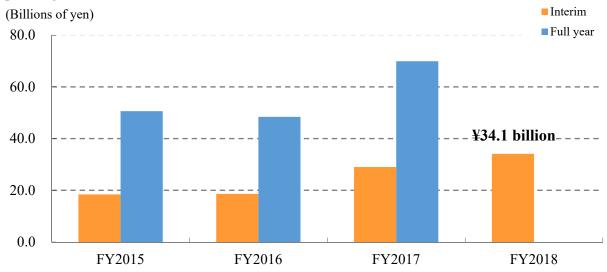
## Orders



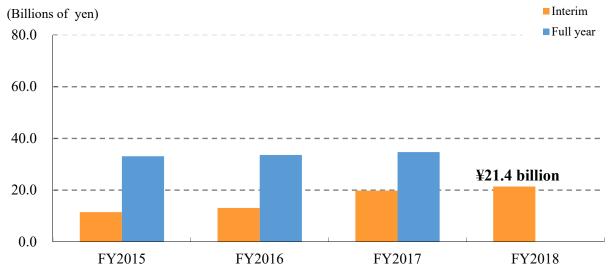
# **Net Sales**



# **Operating Income**



Net Income Attributed to Shareholders of the Parent Company



Note: Amounts less than one unit are rounded to the nearest unit.

# **Review of Operations by Segment**

# Net Sales Ratio by Segment

FY2017	Interim

Machinery Components	14.4%
Precision Machinery	21.6%
Construction Machinery	35.4%
Industrial Machinery	10.8%
Ships	5.1%
Environmental Facilities & Plants	11.6%
Others	1.1%

## FY2018 Interim

Machinery Components	14.7%
Precision Machinery	20.6%
Construction Machinery	34.0%
Industrial Machinery	9.8%
Ships	4.5%
Environmental Facilities & Plants	15.6%
Others	0.8%

# **Machinery Components**

Major Products: Power Transmission and Control Equipment, Motors

Net Sales: ¥62.4 billion Year-on-Year Change: +22%

Both orders and sales rose on solid markets for precision gear reducers for use in robotics in Europe and China and for small and medium-sized power transmission equipment, and also from the addition of the Lafert Group (Lafert S.p.A., etc.) to the scope of consolidation.

		(Billions of yen)
	FY2017	FY2018
	Interim	Interim
Orders	56.1	68.3
Net Sales	51.2	62.4
Operating Income	5.3	4.5



### **Precision Machinery**

Major Products: Plastic Injection Molding Machines, Extrusion Laminators Machines, Semiconductor Manufacturing Equipment, Laser Processing Systems, Cryogenic Equipment, Precision–Positioning Stages, Precision Forgings, Control System, Defense Equipment, Machining Tools

Net Sales: ¥87.0 billion Year-on-Year Change: +13%

Orders and sales rose in the plastic injection molding machine business on continued strong electric and electronic sector demand from China.

Other precision machinery businesses also recorded orders and sales growth from, among others, increased demand for medical-use cryogenic equipment.

		(Billions of yen)
	FY2017	FY2018
	Interim	Interim
Orders	86.5	98.1
Net Sales	76.8	87.0
Operating Income	7.8	7.7



#### **Construction Machinery**

Major Products: Hydraulic Excavators, Construction Cranes, Road Construction Machinery

Net Sales: ¥144.2 billion Year-on-Year Change: +15%

Both orders and sales rose in the hydraulic excavator business due to growth in demand from China and other overseas markets.

The construction crane business also recorded growth in orders and sales from the trend of recovery in the North American market and solid domestic demand.

		(Billions of yen
	FY2017	FY2018
	Interim	Interim
Orders	122.4	152.4
Net Sales	125.6	144.2
Operating Income	8.3	13.1



## **Industrial Machinery**

Major Products: Cyclotrons, Medical Equipment, Forging Machines, Material Handling Systems, Logistics & Handling Systems, Automated Parking Systems, Turbines, Pumps

Net Sales: ¥41.6 billion Year-on-Year Change: +8%

Orders declined in the turbine business, but rose in the material handling systems business on strong demand from steelmakers. Although sales declined in the turbine business, overall sales rose on growth in the industrial machinery business, primarily from order backlogs for forging machines.

		(Billions of yen)
	FY2017	FY2018
	Interim	Interim
Orders	40.2	43.2
Net Sales	38.5	41.6
Operating Income	3.0	3.0



# Ships Major Products: Ships

Net Sales: ¥19.0 billion Year-on-Year Change: +4%

With sluggish market conditions continuing, there were no orders for new ships, as in the year-earlier period, but orders for maintenance and repairs grew. In terms of sales, there were two deliveries, which was one fewer than in the year-earlier period.

		(Billions of yen)
	FY2017	FY2018
	Interim	Interim
Orders	7.9	12.1
Net Sales	18.3	19.0
Operating Income	2.0	1.1



## **Environmental Facilities & Plants**

Major Products: Power Generation Systems, Boiler Systems, Industrial Waste Treatment Plants, Air Pollution Prevention Equipment, Water Treatment Systems, Chemical Process Equipment & Plants, Pressure Vessels, Mixing Vessels, Air-Conditioner, Food Production Equipment

Net Sales: ¥66.0 billion Year-on-Year Change: +61%

Although orders for biomass-fueled power generation plants declined, overall orders and sales in the energy plant business rose from the addition of Sumitomo SHI FW Energie B.V. to the scope of consolidation. Orders in the water treatment plant business rose on orders for new construction projects, but sales declined.

		(Billions of yen)
	FY2017	FY2018
	Interim	Interim
Orders	68.8	83.6
Net Sales	41.0	66.0
Operating Income	1.6	3.6



Note: Numbers less than one unit are rounded to the nearest unit.

## Feature 2

# Expanding business scope with acquisition of industrial motor manufacturer Lafert Group

SHI acquired the shares of the Italian industrial motor manufacturer Lafert Group (Lafert S.p.A., etc.) in June 2018, making Lafert Group its subsidiary.

## **The Lafert Group**

Lafert, established in Italy in 1962, is an industrial motor manufacturer with a wide-ranging product lineup. Focusing on automation and energy conservation, its motors are used in industrial machinery, material handling equipment, fans, and pumps. Lafert also provides products and solutions individually tailored to its customers. The group has a particularly strong presence in Europe, with a strong customer base covering a broad range of industries.

Factories: 6 (Italy-4; Slovenia; China) Sales offices: 6 (Germany, United Kingdom; France; Spain; Australia; Singapore)

### **Future developments**

By acquiring the shares of Lafert, SHI will obtain the superior industrial motor technology in highly efficient permanent magnet motors, servo motors, and servo drivers that is the company's strength. We expect this to lead to the expansion and strengthening of the scope of the SHI Group's electric motors and controls businesses.

With regard to sales going forward, we are designating Robotics/Positioning, Material Handling, and Food and Beverage machinery as priority areas where growth is expected, and including inorganic growth and overseas growth in particular, we are targeting net sales of ¥200.0 billion.

## Priority areas for expected synergies

<Lafert Group> Highly efficient permanent magnet motors Servo motors Servo drivers

<Sumitomo Heavy Industries, Ltd.> Motion control drives Compact gear motors

- Integrated zero-backlash servo actuators
- Energy-saving highly efficient gear motors

Pumps, fans, compressors Energy Material handling Automation, robotics, machining tools Food and beverage machinery

# Company Information (as of September 30, 2018)

## **Corporate Data**

- Incorporated: November 1, 1934
- Paid-in capital: ¥30,871,651,300
- Number of employees (consolidated): 22,197
- Offices

ces	
Head office:	1-1, Osaki 2-chome, Shinagawa-ku, Tokyo, Japan
Business offices:	Chubu Office (Nagoya-shi) Kansai Office (Osaka-shi) Kyushu Office (Fukuoka-shi)
Plants:	Tanashi Works (Nishitokyo-shi, Tokyo) Chiba Works (Chiba-shi) Yokosuka Works (Yokosuka-shi, Kanagawa Pref.) Nagoya Works (Obu-shi, Aichi Pref.) Okayama Works (Kurashiki-shi, Okayama Pref.) Niihama Plant of Ehime Works (Niihama-shi, Ehime Pref.) Saijo Plant of Ehime Works (Saijo-shi, Ehime Pref.)
Laboratories:	Technology Research Center (Yokosuka-shi, Kanagawa Pref.)

# **Directors and Corporate Auditors**

Representative Director and Chairman of the Board	Yoshinobu Nakamura
Representative Director and President & CEO	Shunsuke Betsukawa
Representative Director	Yoshiyuki Tomita
Director	Toshiharu Tanaka
Director	Tetsuya Okamura
Director	Hideo Suzuki
Director	Eiji Kojima
Director	Shinji Shimomura
Director	Susumu Takahashi
Director	Hideo Kojima
Standing Corporate Auditor	Yuji Takaishi
Standing Corporate Auditor	Jun Nogusa
Corporate Auditor	Takeo Wakae
Corporate Auditor	Masaichi Nakamura

# **Executive Officers**

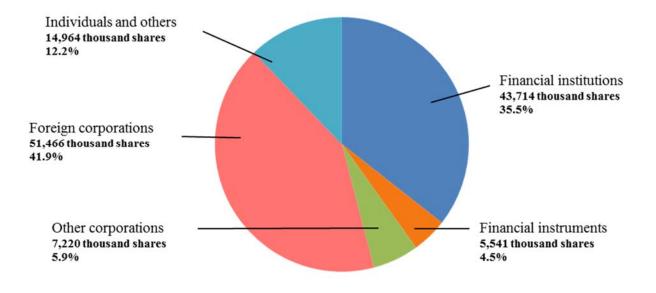
President & CEO	Shunsuke Betsukawa
Executive Vice President	Toshiharu Tanaka
Executive Vice President	Yoshiyuki Tomita
Executive Vice President	Tetsuya Okamura
Executive Vice President	Hideo Suzuki
Executive Vice President	Shinji Shimomura
Senior Vice President	Hiroo Morita
Senior Vice President	Kazuo Hiraoka
Senior Vice President	Tatsuya Endo
Senior Vice President	Taiji Tsuchiya
Senior Vice President	Eiji Kojima
Senior Vice President	Hiroshi Arito
Senior Vice President	Hideshi Shimamoto
Senior Vice President	Morihiro Kondo

## Stock Information (as of September 30, 2018)

## Stock Data

<ul> <li>Total number of authorized shares:</li> </ul>	360,000,000
Total number of issued shares:	122,905,481
Number of shareholders:	34,762

# **Breakdown of Shareholders**



Note: The number of shares and shareholding ratios are rounded to the nearest unit.

### **Shareholder Information**

Fiscal Year	April 1 each year through March 31 of the following year	
Ordinary General Meeting of	June (every year)	
Shareholders		
Record Dates	Ordinary General Meetings of Shareholders	March 31st
	Payment of Interim Dividends	September 30th
	Payment of Term-end Dividends	March 31st
Custodian of the Register of	Sumitomo Mitsui Trust Bank, Limited	
Shareholders and the Institution	1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	
that Manages the Special Accounts		
Handling Place of Register of Sumitomo Mitsui Trust Bank, Limited Stock Transfer A		ransfer Agency
Shareholders	Department 1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	
	[Mailing Address] Sumitomo Mitsui Trust Bank, Limited Stock Transfer Agency Department	
	2-8-4, Izumi, Suginami-ku, Tokyo 168-0063, J	apan
	[Telephone Inquiries]	
	Toll free number: 0120-782-031 Hours: 9:00-17:00 (except for Saturdays, Sundays, national ho and the New Year's holiday)	
	• /	
	[Website]	
	https://www.smtb.jp/personal/agency/index.html	
Method of Public Notice	To be posted on the Company's Website (http://www.shi.co.jp).	
	However, where required by unavoidable circumstances, public	
	notices will be made in the Nihon Keizai Shimbun	

[Notification or Inquiries about Change of Address with Respect to Shares]

Shareholders who have an account with a securities company are asked to give notification or make inquiries about matters such as change of address to the securities company at which he or she has an account. Shareholders who do not have an account with a securities company are asked to call the following telephone number.

[Special Accounts]

For shareholders who did not use the depository and book-entry transfer system (*Hofuri*) operated by the Japan Securities Depository Center prior to dematerialization of share certificates, we have opened an account (called a special account) at the transfer agent Sumitomo Mitsui Trust Bank, Limited. Inquiries about, or notifications of, matters such as change of address with regard to special accounts should be made to the following telephone number.

[Request for the Purchase or Sale of Shares of Less than One Unit]

Please contact the securities company at which you have an account for requests for the purchase or sale of shares of less than one unit (100 shares). In the case of requests regarding shares recorded in a special account, please call the following telephone number.

Contact: Stock Transfer Agency Department Sumitomo Mitsui Trust Bank, Limited Toll free number: 0120-782-031 Hours: 9:00-17:00 (except for Saturdays, Sundays, national holidays, and the New Year's holiday)

> Sumitomo Heavy Industries, Ltd. Website www.shi.co.jp