

## 2 Review of Operations

### Review of Operations by Region | Japan

#### Review of Fiscal 2016

In Japan despite positive factors of increases in new orders, transfer of production from overseas facilities and higher sales of aftermarket parts, total orders declined because of weak sales of automobiles in the first half, decreased production of compact trucks for overseas markets, and lower exports of industrial machinery application products. As the result, sales declined by 2.7% year-on-year to JPY80.9 billion. With regard to profits, efforts to rationalize manufacturing and procurement functions, cost reductions, and reductions in development expenses of overseas group companies allowed operating profit to rise by 26.5% year-on-year to JPY4.1 billion.

#### Outlook for Fiscal 2017

The Japanese economy is projected to grow slightly year on year, reflecting expectations for gradual economic expansion and the disappearance of fuel efficiency scandals that arose last year. Nevertheless, Akebono forecasts domestic net sales will decline 5.4% year-on-year to JPY76.5 billion in fiscal 2017. The Company also expects operating profit to decrease due to the decline in net sales and higher labor costs, in spite of efforts to rationalize operations and reduce costs.

#### Received “Best Innovation” Award in Sixth French Business Awards 2017

Akebono received the “Best Innovation” award for the development and mass production of high-performance automotive brakes in the Sixth French Business Awards 2017 sponsored by the France Chamber of Commerce and Industry in Japan. These brakes are used in the McLaren P1™ ultra-high-performance road car that came to market in 2013. The French Business Awards were created to honor excellence among members of the French Chamber of Commerce and Industry in Japan. Five members on the panel of judges, including the President of the French Chamber of Commerce and Industry in Japan, opinion leaders, and journalists evaluate companies based on the success of their products and services, innovation, social contributions, and corporate ethics. The awards ceremony was

attended by Thierry Dana, the French Ambassador to Japan, who personally awarded the trophy.



French Business Awards Ceremony

### Review of Operations by Region | North America

#### Review of Fiscal 2016

Results of various restructuring measures for the North American operations have been achieved earlier than expected and new business inquiries have recovered in the wake of the production issues. Consequently, orders continued to trend at high levels and sales in local currency rose 1.3% year-on-year. However, sales in yen terms fell by 8.2% year-on-year to JPY153.1 billion due to the impact of the stronger yen (-JPY16.0 billion). In addition, the production issues, which caused large losses to be incurred in the previous term, are approaching an end due to the success of various measures, and a subsequent considerable improvement in profitability has allowed the operating loss to contract to JPY3.2 billion in the current term from JPY11.2 billion in the previous term.

#### • Progress in Key Measures for North America Business

##### 1. Fundamental organizational reforms

A new Chief Executive Officer and Chief Financial Officer, new plant and marketing managers, production division managers and purchasing division managers have been hired to renew the core management and overall organizational structure, and strengthen the organizational and supervisory structure. In addition, efforts to change the awareness of associates and improve the working environment implemented in the current term are expected to yield results and lead to large improvements in earnings from the coming term onwards. In February 2017, restructuring of the organizational and supervisory structure has been completed with the hiring of a new executive responsible for the human resources division. Furthermore, measures

will be implemented to strengthen collaboration within the Akebono Group, and restructure the manufacturing function by promoting production efficiency improvements and increasing production capacity based upon a return to the basic philosophy of Akebono's corporate culture of "Monozukuri" (manufacturing excellence) to achieve stability of operations and further improvements in earnings.

### 2. Productivity improvement

Akebono Brake is promoting optimization of manufacturing functions on a global basis by considering Akebono Group's various production facilities' capacity utilization and reviewing logistics conditions, and by transferring production of some friction material products to overseas facilities within our group (Japan and Thailand) to optimize manufacturing on a global basis. Manufacturing lines had been operating at full capacity three shifts per day, seven days a week in response to the prolonged period of strong demand. But optimization efforts have allowed our company to reduce the work load to three shifts for six days a week, and to begin reducing the number of shifts to two per day at some lines. Consequently, facility maintenance and repairs can now be implemented as planned and expenses for expedited freight of parts because of production delays have been reduced by a large margin and earnings improvements are being achieved. Akebono Group will conduct efforts to achieve further improvements in manufacturing optimization and stability.

### 3. Manufacturing capacity increase

In response to the growing demand for aluminum brake

calipers in North America and Europe, new manufacturing facilities have been introduced to increase production capacity to the Columbia Plant in South Carolina in April 2016, and a new line began full scale operation in October 2016. Moreover, the expanded manufacturing facilities for friction materials as part of the highly profitable aftermarket parts business at the Glasgow Plant in Kentucky were expanded in February 2017. Furthermore, output capacity of products responding to strong demand from pickup trucks and sports utility vehicles (SUVs) applications will be increased with a view to customer needs and market trends.

### 4. Optimization of sales and purchase prices

Efforts to improve manufacturing costs, and reviews of optimization of sales and purchase pricing were undertaken to improve the earnings generating structure of the North American operations. The results of these efforts are expected to contribute to improved earnings of the North American operations from the current term onwards.

### Outlook for Fiscal 2017

While effective pricing revisions were achieved during fiscal year ended March 2017, our sales are expected to decline due to slow automobile sales in North America and the influence of termination of some platforms. With regard to profits, pricing revisions, productivity improvements, success of North American operations restructuring efforts, and large declines in consulting and expedited shipment fees recorded during the previous fiscal year are expected to allow operating profit to improve by a large margin.

## Akebono Brake Corporation's (ABC) EURO® Ultra-Premium Ceramic Disc Brake Pads Named Best Overall Import Aftermarket Product Award

Akebono Brake Corporation's EURO® Ultra-Premium ceramic disc brake pad line was awarded "Best Overall Import Aftermarket Product or Product Line" by the Import Vehicle Community, an automotive group in the United States. This marks the second time ABC has won this award (the first time was in 2014).

EURO® Ultra-Premium ceramic disc brake pads were designed for European vehicles to realize the excellent braking performance expected in European vehicles, control characteristics and smooth pedal feeling. These brake pads offer the highest levels of performance in terms of reducing noise, vibrations and harshness, which are common problems with brakes. They also drastically reduce brake dust, which helps to keep wheels clean. In addition, these brake pads contribute to the environment by minimizing the content ratio of copper, which is being regulated as a chemical substance in some states in the United States.

Akebono's EURO® Ultra-Premium ceramic disc brake

pad was selected from among hundreds of European car parts sold in the United States and honored with this award based on a comprehensive evaluation of its commercial success, quality, level of demand, distribution process, packaging and sales network.



EURO® Ultra-Premium ceramic disc brake pads

## 2 Review of Operations

### Review of Operations by Region | Europe

#### Review of Fiscal 2016

While aftermarket friction materials products sales declined, expansion in products sold to global platform applications (common platforms for global distribution) and full scale sales of disc brake calipers for mass produced high performance vehicles allowed sales to grow by 6.5% year-on-year to JPY11.6 billion. With regard to profits, the increase in one-off expenses arising from preparations for increased production at the newly established Slovakia Plant and deterioration in the product sales mix due to declines in the friction materials business caused operating loss to expand to JPY1.3 from JPY0.9 billion in the previous term.

#### Outlook for Fiscal 2017

The start of full scale production at the Slovakia Plant, which is a manufacturing center for disc brake calipers

in Europe, increases in capital investments to facilitate a stable supply structure to satisfy future growth, and expenses for support provided from Japan are expected to contribute to a continued operating loss. The Slovakia Plant is the most important manufacturing facility in the midterm business plan of expanding the brake calipers business for high performance vehicles, and efforts will be made to establish a firm foundation for this business. In addition, the responsibility of the company overseeing all operations in Europe located in Belgium will be divided and transferred to three companies located in France, Germany and Slovakia, and supervision will be provided directly from the headquarters as part of the restructuring of the European operations. These measures are being undertaken to strengthen the global network and improve earnings of the European operations.

#### Akebono Europe S.A.S. (AESA) Exhibits at Automechanika

AESA presented an exhibition booth at Automechanika Frankfurt 2016, held in Frankfurt, Germany in September 2016. Automechanika is one of the world's largest exhibitions held for companies that provide services to the automotive industry. This time, there were 4,820 exhibitions from companies representing 74 countries, ranging from major corporations to workshops and retailers involved in the automobile industry. AESA's booth was visited by more than 300 people from 30 countries in Europe, the Middle East, and Africa. AESA displayed its current production model brake pads and calipers, in addition to new copper-free brake pads, which offer improved braking performance, less noise,

and better pedal feeling, along with exceptional anti-fade performance and comfort, all while helping keep wheels clean.



Akebono Booth at Automechanika Frankfurt 2016

### Review of Operations by Region | Asia

#### Review of Fiscal 2016

In China orders grew due to favorable sales of SUVs and compact cars on the back of special tax incentives and sales rose by 2.8% year-on-year to JPY20.0 billion. With regard to profits, changes in sales composition arising from increases in orders for friction materials and cost reduction efforts allowed operating profit to rise by 1.7% year-on-year to JPY2.6 billion despite increases in labor cost and depreciation related to environmental responses and an increase in manufacturing lines.

In Thailand increases in production of exported compact cars, start of production of newly ordered parts, optimization of production within the Akebono Group arising from transfer of production from North America and increases in orders

in general allowed sales to rise by 10.1% year-on-year to JPY6.6 billion. With regard to profits, higher depreciation accompanying the start of new businesses for compact cars, increases in labor expenses and start-up expenses arising from the start of production at a new foundry caused operating profit to fall by 9.5% year-on-year to JPY0.4 billion despite higher sales.

In Indonesia orders within Indonesia associated with new business for multi-purpose vehicles (MPVs) that meet low-cost green car (LCGC) regulations, and shipments of products for global platform vehicle applications in Europe remained favorable and allowed sales in local currency terms to grow. However, the negative influence of the stronger yen (-JPY1.8 billion) caused sales to decline

by 1.3% year-on-year to JPY16.3 billion. With regard to profits, higher materials expenses caused by a weakening of the Indonesian rupiah and increases in labor expenses caused operating profit to decline by 17.9% year-on-year to JPY1.4 billion.

### Outlook for Fiscal 2017

In China, net sales are set to increase as tax breaks for compact cars have been extended by another year, albeit

on a reduced scale, and demand for SUVs is growing stronger. In the ASEAN region, we anticipate growth in the automobile market in Indonesia, supported by government investment in infrastructure. In Thailand, the Company forecasts higher sales as the economy recovers. Altogether, Akebono expects sales to increase further year on year in the Asia business. The Company is focusing efforts on improving earnings by strengthening management amid intensifying market competition.

### Akebono Brake (Thailand) Co., Ltd. (AKBT) Celebrates 10th Anniversary

In August 2016, AKBT celebrated its 10th anniversary. During the event, awards were given for in-house contests and a commemorative tree was planted, and other activities were held for the 400 or so associates who attended.

AKBT was established in 2006 as a production base for automotive disc brakes and pads. In 2011, severe flooding in Thailand halted customers' operations, creating a difficult situation that AKBT was able to overcome thanks to the combined efforts of its associates. In 2012, local production of pistons, a key component in brakes, commenced at AKBT, contributing to the development of Thailand's automotive industry. AKBT will continue working toward the realization of sustainable growth along with local communities.

#### Overview of AKBT

Associates	427 (342 direct employees, 85 indirect employees) *As of July 2016
Business	Production and sale of disc brakes and pads, etc.
Work hours	Two shifts per day (8am-5pm, 8pm-5am)
History	<p><b>2006</b> Company founded, caliper manufacturing plant construction started</p> <p><b>2007</b> Finished construction of caliper manufacturing plant, started production of calipers, began construction of brake pad plant</p> <p><b>2008</b> Finished construction of brake pad plant, held grand opening ceremony, began deliveries of calipers and brake pads</p> <p><b>2012</b> Finished construction of piston manufacturing plant, began production of pistons</p>



The Anniversary Event

### PT. Akebono Brake Astra Indonesia (AAIJ) Wins Customer Improvement Contest

AAIJ has undertaken a companywide initiative to make various improvements with the aim of enhancing the skills and abilities of each associate and for the Group as a whole. This initiative has had measurable results, with AAIJ scoring highly at customer improvement contests held in 2016. AAIJ won the Astra Daihatsu Motor Supplier Clubs Contest held in February 2016, and in September finished the Yamaha TVP Lean Kaizen Festival 2016 among the top five best suppliers. Moreover, AAIJ won the Astra Group's Automotive Division Contest held the same month, going on to enter the main event, which includes various industries gathered together. In December, AAIJ was a winner at the Toyota Kaizen Festival. While continu-

ing to refine skills and abilities, AAIJ aims to become a truly global supplier out of Indonesia.



The Toyota Kaizen Festival