

## REVIEW OF OPERATIONS

# TIRE group

### FISCAL 2003 IN REVIEW

Sales of Yokohama tires expanded, centered on Asia and Europe, and overseas subsidiaries improved their profitability. As a result, sales of the Tire Group increased 1.0%, to ¥287.0 billion, and operating income advanced 10.8%, to ¥17.3 billion.

### RESULTS IN JAPAN

#### SALES UNCHANGED IN JAPAN

Domestic sales of the Yokohama Group center on tires for passenger cars, and for trucks and buses. In fiscal 2003, both unit- and value-based sales were almost unchanged from the previous year.

Original equipment (OE) sales of tires expanded in unit and value terms. Automobile manufacturing in Japan recovered for the first time in two years, increasing 5.3%, to 10.3 million units. In addition, in April 2002 we established Yokohama Continental Tire Co., Ltd., a joint venture with Continental. This company began promoting OE tires from both partners to Japanese automakers during the year under review. These and other dynamic activities supported the increase in OE tire sales.

Although we released various replacement models for passenger cars, and trucks and buses, a 1.7% drop in overall demand in the marketplace held unit- and value-based sales for the Yokohama Group at around fiscal 2002 levels. On the



*Top: Our new high-performance ADVAN NEOVA AD07 sports tire is based on state-of-the-art motor sports technologies.*

*Bottom: Yokohama markets a full lineup of DNA passenger car tires, which help lower fuel consumption, for vehicles from luxury import cars to family cars.*



*Top: Yokohama's iceGUARD studless tires feature heightened water absorption to greatly improve braking on icy surfaces.*

*Bottom: Increased sales of high-performance passenger car tires, such as the AVS Sport, contributed to improved profitability at YTC in the United States.*



positive side, aggressive marketing of our DNA series of low-energy-consumption tires and other high-value-added products helped us raise the average price per unit of replacement tires. Demand was, and remains, favorable for our DNA map tires, released in January 2002 for minivans and one-box cars, and for flagship ADVAN NEOVA AD07 sports tires introduced in February 2003. We also improved our mix of tires for trucks and buses. Sales rose for high-value-added offerings featuring proprietary technologies, including the long-life, highly durable PRO FORCE Tough TY787, released in October 2002.

#### CONSTRUCTING A NEW-CONCEPT TIRE PLANT

In March 2003, we announced plans to construct a new passenger car tire plant south of the Shinshiro Plant in Aichi Prefecture. The aim is to strengthen the Group's high-performance tire business. The new plant will focus on high-performance tires for passenger cars and sports utility vehicles (SUVs) with inside diameters of 18 inches or more, for which demand is growing worldwide. This plant will employ our New Manufacturing System, which enables small-run production of diverse models, and other concepts. Construction will be in several phases from 2003 to 2005. We plan an initial annual capacity of 300,000 tires when the plant opens, raising it to 750,000 units a year by the end of fiscal 2006.

### RESULTS IN NORTH AMERICA

#### POISED FOR PROFITABILITY

Our operations in North America center on passenger car tires produced at YTC and on truck and bus tires.

In 2001, YTC posted a loss of \$19.1 million, which it reduced to \$550,000 in 2002. That subsidiary has succeeded in its strategy of raising the ratio of high-value-added "Yokohama" brand passenger car tires to total sales. Higher sales of tires for trucks and buses also contributed to YTC's performance improvement. Unit-based production fell as YTC deemphasized tires with low margins, so overall profitability per unit increased. Reduced interest, logistics and personnel expenses absorbed cost increases from the drop in YTC's rate of output. YTC still faces several challenges, including price hikes in raw materials, but it will continue to restructure its sales mix and increase sales of tires for trucks and buses to regain profitability in 2003.

## RESULTS IN ASIA AND OCEANIA

### NUMEROUS HIGH-PERFORMANCE TIRES LAUNCHED

Our operations in Asia center on sales of passenger car tires exported mainly from Japan and the Philippines. In fiscal 2003, demand for new products was favorable amid a regional economic recovery, thus increasing sales.

Demand for the AVS ES100 (DNA GRAND PRIX in Japan) sports tire, which we released in spring 2002, led our sales expansion in Asia. This tire reduces fuel consumption and offers excellent handling. Sales of this model were strong in Thailand, Malaysia, Singapore, and other markets. In Thailand, where we opened a representative office in Bangkok in 2002, the popularity of new products and vigorous efforts to expand sales channels helped to nearly double unit sales.

In spring 2003, we released the AVS dB EURO passenger car tire, popular in Europe for its quiet and comfortable ride, in Asian markets. We aim to keep improving regional results by concentrating sales activities on this tire and the AVS ES100.

### CHINESE PLANT COMMENCES OPERATIONS

The new tire plant of Hangzhou Yokohama Tire in Zhejiang Province started to make passenger car radial tires in May 2003. This facility's replacement tires match the high quality of counterparts produced in Japan, and we aim to use them to establish Yokohama as a high-class brand in China. This plant has an annual capacity of 750,000 tires, but plans are to double output in the next two or three years. In line with our production startup in China, we intend to set up a nationwide sales network in that country, centered on exclusive retail outlets.

### YOKOHAMA TIRE PHILIPPINES INCREASES CAPACITY

Yokohama Tire Philippines is primarily a production and sales base for passenger car tires, exporting most of its output to Europe, the Middle East, and other countries in Asia. In the year under review, exports to Europe increased, allowing Yokohama Tire Philippines to raise sales and profits. This subsidiary is responding to the growing popularity of passenger car tires with high inside diameters by expanding capacity for tires with 16-inch and higher inside diameters. By fiscal 2004, Yokohama Tire Philippines expects to increase its annual output of these models from two million, to 2.5 million units.



*Top: Our passenger car tire plant in China commenced operations in May 2003.*

*Bottom: In developing the AVS ES100 sports tire, we focused on enhancing driving performance and fuel efficiency.*





Top: Our AVS S/T type-1 tire for SUVs was selected as standard for the G55 AMG, a high-performance car in the Mercedes-Benz G Series.

Center/Bottom: At the 71st Le Mans 24-hour race in France, Yokohama was official sponsor of the ADVAN KONDO Racing team and supported three other teams. The ADVAN KONDO Racing team, which received media attention for its "all-Japan" chassis, engine, tires, and drivers, placed 13th overall and 8th in its class. The center photo shows the team's ADVAN KONDO S101, and the bottom photo features, from the right, drivers Masahiko Kondo, Ryo Fukuda, and Ukyo Katayama

#### FAVORABLE DEMAND IN AUSTRALIA

Although inexpensive imports from Southeast Asia rapidly penetrated the Australian replacement tire market, we improved our sales in this country on the strength of the AVS ES100 sports tire and the new AVS dB, which contributes to quiet driving.

### RESULTS IN EUROPE AND OTHER REGIONS

#### STRONG SALES OF HIGH-PERFORMANCE TIRES

In Europe, we concentrate on selling imports from Japan and the Philippines. We mainly market tires for passenger cars, and truck and bus tires through sales subsidiaries in Germany, Italy, the United Kingdom, Austria, Switzerland, Sweden, and Denmark, and through regional retail outlets.

In the year under review, new passenger car registrations dipped 2.7% overall in the 18 largest European markets, thereby contracting demand for OE tires. Our operating environment worsened as competition intensified in the replacement tire market. Nonetheless, sales of high-performance tires were strong and, reflecting the strong euro, our regional sales increased significantly. Our AVS dB high-performance tire was particularly well received after its launch in spring 2002. High demand for these tires contributed significantly to our sales gains in Europe.

#### OPENING MORE CONCEPT SHOPS

We will continue to introduce SUV and snow tires to increase sales in Europe. In fiscal 2004, we began to expand our regional sales network by opening two model concept shops that primarily offer our products. Yokohama has participated in such events as the Frankfurt Motor Show in Germany and the Geneva Motor Show in Switzerland to raise its brand awareness. In August 2003, we are also participating in the Moscow Motor Show to boost sales in Russia and Eastern Europe.

#### DIFFICULT ENVIRONMENT IN THE MIDDLE EAST

Our business in the Middle East, where awareness of the Yokohama brand is relatively high, centers on sales of passenger car, truck and bus tires. In fiscal 2003, sales of premium truck and bus tires increased, but the Iraq crisis and war in the second half constrained overall tire demand, lowering overall sales.

## REVIEW OF OPERATIONS

# MB group

### FISCAL 2003 IN REVIEW

Sales of automobile-related products, such as windshield sealants and hoses, increased in fiscal 2003. However, demand was down for conveyor belts, antiseismic rubber bearings for bridges, and aircraft components. As a result, MB Group sales decreased 1.8%, to ¥113.5 billion, and operating income dropped 13.4%, to ¥6.3 billion.

### SEALANTS AND ADHESIVES

#### WINDSHIELD SEALANTS SUPPORT SALES

Yokohama markets sealants for buildings and homes, automotive adhesives, and coatings under the HAMATITE® brand. This brand leads the Japanese markets for building sealants, as well as that for windshield sealants supplied to automakers on an OE basis.

In the year under review, sales declined for construction sealants, a major product in this category, owing partly to a slowdown in large urban redevelopment projects in metropolitan Tokyo. However, higher domestic automobile production boosted sales of windshield sealants, while demand expanded for our multiple-layer glass sealants and urethane waterproofing materials. In this situation, overall sales of the HAMATITE® line increased. Demand was particularly strong for our multiple-layer glass sealant, which enjoys a strong reputation for its weather resistance and adhesive performance. Leading home construction companies began to use this sealant in the year under review.



*Numerous high-rise buildings at Shiodome Shiosite, a large residential and commercial urban redevelopment project in Tokyo's Minato Ward, incorporate Yokohama building sealants.*

## HOSES

### TRAILBLAZING NEW APPLICATIONS

Yokohama leads the Japanese market for hoses for construction equipment and machine tools, with a share of approximately 40%. Our power-steering and car air conditioning hoses also hold large shares in their markets.

In fiscal 2003, sluggish demand for construction equipment slowed our sales of related hoses, but our automotive hoses were adopted for popular new car models, supporting a major increase in sales. Overall sales of hoses thus improved.

Efforts to pioneer new applications for our hoses led to our entry into new businesses, including DPF (diesel particulate filter) Teflon hoses for equipment that eliminates particulate matter expelled by diesel-engine vehicles, and metallic hoses for gas heat pumps in gas-powered air-conditioning units. Our revolutionary new continuous production line, which reduces hose production lead times from four days to three hours, started full-scale operations in fiscal 2003. This line also slashes production costs and has enabled us to win a large order for car air-conditioner hoses.

### MARINE HOSES AND PNEUMATIC FENDERS

#### SALES EXPAND SIGNIFICANTLY

We mainly export our proprietary marine hoses and pneumatic fenders, and have a large share of the global market. The generally weak yen in fiscal 2003 supported large sales gains. As rising oil prices led to active production, we launched and marketed new marine hose offerings, winning a large order during the year.

Demand was strong for our fenders for ship-to-ship transfer operations for super tankers, reflecting expanded shipping traffic.

### ANTISEISMIC RUBBER BEARINGS AND JOINTS

#### FIRM DEMAND FOR JOINTS

With public-sector investment declining and prices and orders falling, our sales of antiseismic rubber bearings for bridges decreased. However, demand was favorable for our Big Joint model, which fits between girders to compensate for contraction and expansion between sections of raised highways. Big Joints can handle spaces as wide as 60 centimeters.

*Top: For our automotive hoses operations, which performed well in fiscal 2003, we are formulating plans to commence business in China.*

*Bottom: Our pneumatic fenders are popular for pressure holding strength and their durability of up to 30 years.*



## GOLF PRODUCTS

### NEW DRIVER MASSIVELY SUCCESSFUL

In Japan's market for golf products, shipments were down for the sixth consecutive year, creating a harsh operating environment for the Yokohama Group. Since its launch in January 2003, sales have soared for the TR DUO driver, the head of which employs titanium and carbon fiber-reinforced plastics. However, as this product was launched only three months before the fiscal year-end, revenues were insufficient to raise category sales.

## AIRCRAFT COMPONENTS

### MAJOR ORDERS SECURED

The aftermath of the 9/11 terrorist attacks continued to dampen demand for new aircraft in fiscal 2003, lowering our sales of aircraft components. On the other hand, we won several large orders, including common lavatory modules for the Boeing 737 and 757 and water tanks and waste tanks for the Airbus A380, and we look forward to better results in the year ahead.

## OVERSEAS PRODUCTION

### STRONG OVERSEAS OPERATIONS

Our overseas production centers on plants for hoses and sealants in the United States and Asia. Foreign subsidiaries enjoyed strong sales in fiscal 2003. U.S.-based SAS Rubber increased sales on larger orders for automotive hoses from Ford Motor, DaimlerChrysler, and the car maintenance market. YH America also expanded sales of automotive hoses, sustained by favorable demand from the U.S. operations of Japanese automakers, as well as of windshield sealants and hotmelt sealants for automotive lamps, leading to an overall rise in sales for the year.

In Asia, SC Kingflex Corporation, our hose production and sales subsidiary in Taiwan, significantly expanded sales through export increases to China and the United States. Yokohama Rubber (Thailand) Co., Ltd., experienced falling exports of windshield sealants to Southeast Asia. However, this subsidiary was able to raise overall sales thanks to significantly improved demand for construction equipment and automobile hoses.



*Top: The head of the DUO, our newest driver, which employs a carbon fiber-reinforced plastic crown, is more flexible and resilient than full titanium, to extend distances. The DUO is attracting wide attention as a next-generation driver.*

*Bottom: The first Airbus A380s—with a standard 555 seats, making them the world's largest passenger aircraft—will go into operation in 2006. Yokohama will supply water tanks and waste tanks for these aircraft from March 2004.*

