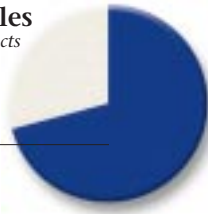




**D**uring the year ended March 31, 1999, sales of power transmission products decreased 11.4%, to ¥78.9 billion (US\$657.3 million), accounting for 71.1% of consolidated net sales. Overseas sales declined 1.2%, to ¥28.4 billion (US\$237.1 million), representing 36.1% of sales of power transmission products.

Although the Japanese economy continued to slump, domestic sales of automotive products were strong. Overall, however, domestic sales declined. Overseas, sales were strong in the key North American market and in Europe, but sales in Asia were adversely affected by the region's economic conditions.

Share of Net Sales  
Power Transmission Products  
**71.1%**



## Sales Breakdown

	Millions of Yen		% Change 1999/1998
	1999	1998	
<b>Domestic Sales</b>	¥50,429 (63.9)	¥60,250 (67.7)	-16.3
<b>Overseas Sales</b>	28,446 (36.1)	28,804 (32.3)	- 1.2
<b>Total</b>	¥78,875 (100.0)	¥89,054 (100.0)	-11.4

# Power Transmission Products

## ◆Chains

As one of the world's leading chain makers, Tsubakimoto Chain provides customers in a wide range of industries with advanced, high-performance products. Our quality and technical development capabilities are highly regarded by our customers.

In Japan, sales of chains were sluggish during the year under review, as the economy continued to slump, capital investment declined, and our customers reduced production. However, we introduced advanced networking software to augment our information-sharing capabilities and focused our marketing resources on key industries. As a

result, we secured new orders in the environment-related and machine tool industries. In addition, in the cement and other heavy industries, we reinforced our relationships with customers by expanding our chain inspection services. We generated new demand during the year with the introduction of environmentally friendly products, such as a highly corrosion resistant drive chain with non-chrome surface processing and a low-noise roller chain that reduces operating noise by 6 to 8 decibels. By strengthening the development and marketing of new products, we continue to make steady progress in raising the percentage of sales accounted for by new products.

Highly anticorrosive chains



Overseas, conditions were comparatively favorable in our mainstay North American market, in Europe, and in Australia. In particular, we recorded robust sales of strong chains to the Australian mining industry. In Asia, however, markets were extremely sluggish. Currently, in the United States we are developing an OEM strategy for the construction machinery, agricultural machinery, and forklift industries. In Europe, we are prepared to begin sales of an improved version of our BS chains, our best-selling product in Europe, and we expect to increase our share there.

To raise our productivity, we are building a state-of-the-art plant in Kyotanabe City, Kyoto Prefecture. We will give it the ability to function as a technical center providing support to the entire company



**Low-noise roller chains**

in technology and product development. During the year under review, prior to purchasing the land, we completed the basic building design and began the detailed design.

## ◆ Power Transmission Units and Components

In addition to chains, Tsubakimoto Chain provides a wide range of other power transmission products. These products include reducers, such as gear motors and gear boxes, and motion control units, such as Power Cylinders, couplings, and Cam Clutches.

In a difficult environment, favorable performances were recorded by such products as Power Locks and



**Hypoid Motor Minis**

**Lini Power Jacks**

Hypoid Motors. During the year, we increased the number of sales engineers working with these products and actively promoted sales of combinations of chains, belts, and other power transmission related products. We expanded our lineup of compact speed reducers with hypoid gears through the addition of a series of small-sized units ranging from 40W to 90W. Also, we completed our lineup of jacks with a model change and the addition of new models. We also

strengthened our attention to customer needs by distributing a complimentary CD-ROM catalog for our power transmission products and offering one-day delivery of semi-order-made gear motors.

Overseas, sales of couplings in North America were strong. In Europe, we improved our Cam Clutch inventory system, while in Australia we recorded increased sales of Power Cylinders and Cam Clutches.

In the health care market, we also expanded our product lineup. We complemented our units that convert hand-operated adjustable beds to electric operation with the launch of chairs that provide assistance in standing up and with floor-mounted lifts. The year under review was the third since we entered this field, and we have already sold more than 10,000 bed conversion units. Our name recognition in the health care market is steadily increasing, and sales during the year under review more than doubled from the previous year.

## ◆ Automotive Parts

Tsubakimoto Chain is one of the leading manufacturers of timing drive systems for automobile engines, and the Company provides products to leading automakers in Japan and overseas. For timing chains, we have a market share in Japan of more than 90% as well as the leading share of the U.S. market. In recent years, new automobile engine models have featured higher-output, higher-RPM operation, and as a result the use of steel chains, in which we have particular strengths,

is increasing.

In this market environment, we posted strong results despite the decline in domestic automobile production. Our Super Silent Chains, launched during the year under review, are used as power transmission components in timing drive systems and engines. Super Silent Chains feature low noise and compact size as well as excellent abrasion resistance, a weak point of previous silent chains, that was obtained through special surface processing. We have very high expectations for this product line.

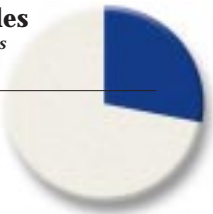
Overseas, sales in North America remain strong. U.S. Tsubaki, Inc., a local production company, was named a Supplier of the Year by General Motors Corporation for the fifth year in a row. Our reliability, production capacity, technical capabilities, and quality assurance system are highly evaluated in this market.

Also during the past year, we signed a contract with Jaguar Cars Ltd., of the United Kingdom, to supply entire timing drive systems. This new business relationship is a clear indication of the progress of our operations in Europe. From 2001, our timing drive systems will be installed on new Jaguar engines. Initially, these products will be supplied from our Saitama Plant through Tsubakimoto Europe B.V., but we are considering starting local production in Europe in the years ahead.



**Super Silent Chain**

Share of Net Sales  
Materials Handling Systems  
**28.3%**



Sales of materials handling systems declined 18.8% during the year under review, to ¥31.4 billion (US\$261.7 million), due primarily to the influence of adverse economic conditions in Japan and the rest of Asia. Materials handling systems accounted for 28.3% of consolidated net sales. Overseas sales increased 17.0%, to ¥10.9 billion (US\$90.8 million), representing 34.7% of our sales of materials handling systems.

Domestically, sales declined significantly due to weak private-sector capital investment and to the postponement of projects. Our overseas business was marked by strong sales in North America but weak sales in Asia, which is generally an important market for our materials handling systems operations.

**Sales Breakdown**

	Millions of Yen		% Change 1999/1998
	1999	1998	
<b>Domestic Sales</b>	¥20,502 (65.3)	¥29,349 (75.9)	-30.1
<b>Overseas Sales</b>	10,901 (34.7)	9,321 (24.1)	17.0
<b>Total</b>	¥31,403 (100.0)	¥38,670 (100.0)	-18.8

# Materials Handling Systems

Weak private-sector capital investment has resulted in poor results for this division. To raise efficiency and improve its performance in this field, Tsubakimoto Chain merged with two production subsidiaries on April 1, 1999, and in the current fiscal year the Company will consolidate materials handling systems production operations into the Saitama Plant. At the same time, we initiated a voluntary early retirement program aimed principally at this division and related subsidiaries. We expect these measures to begin to show results in the current year and to result in annual savings of ¥2.0 billion in labor and other fixed costs.

◆ **Factory Automation Systems**

Tsubakimoto Chain provides advanced factory automation systems to a wide range of industries, such as automobiles, electrical and electronic equipment, paper manufacturing, newspaper, and steel, and the technical strength of the Company's products is highly regarded.

During the year under review in the domestic market, we strengthened marketing to the automotive industry, a major customer. As a result, sales of the Traverser System series of body paint shop conveyor systems increased. We also stepped up marketing to the paper manufacturing and newspaper industries. Sales of AGV and ADS automatic roll paper feeding systems declined, but



*New Traverser System*

*Auto Dolly Super*



orders increased. Sales of systems to the steel and mechatronics industries were down significantly due to reduced capital investment in those



industries. Our plans call for continued reinforcement of marketing efforts directed at the automobile, newspaper, and paper manufacturing industries.

Overseas, our sales in North America increased due to the delivery of body paint shop conveyor systems to Japanese automakers. The performance of these systems has been highly evaluated by our customers, and we have received several inquiries from other companies as well, so the prospects are favorable. In Asia, sales to the steel industry increased, but sales to the electronics industry declined considerably due to the postponement or cancellation of capital investment plans. Operations in South Korea, which has been a large market for the Company, and in other Asian countries have been significantly affected by the currency crisis and other economic problems.

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## ◆ Physical Distribution Systems

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Tsubakimoto Chain offers a complete range of physical distribution systems to distribution centers in a wide range of industries, including publishing, shipping, apparel, sundries, and retail. Our advanced sorting systems, which use linear motor drives and computer control, are making a significant contribution to rationalization in the distribution industry.

Our mainstay products in this field include the Multi-Sorter, a printed materials sorting system for the publishing industry; the Lini Sort, a high-speed, multi-directional



Lini Sort V



Mail Sort

sorting system for the retail industry and shipping centers; and the Fashion Sort, which enables clothing to be distributed on hangers for the apparel industry. Each of these systems showcases our original technology and know-how and has been highly evaluated in its target industry. During the year under review, sales declined due to sluggish private-sector capital investment. However, in linear sorting systems—such as the Lini Sort S, for small objects, and the Lini Sort V, which features low price and compact size—our efforts to bolster marketing have taken effect, with sales to household goods makers and to the distribution industry doubling in the year under review.

We worked to increase the market penetration of our storage and conveyance equipment. For example, the Pak-U-Veyor, a revolving carousel-type storage and conveyor system; Power Column automatic

vertical shelves; and the Autran Vanguard, a ceiling-mounted automatic conveyance system, were the subject of sales campaigns.

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## ◆ Maintenance

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As materials handling systems become more advanced and use more computer control, a higher level of maintenance is required. In the year under review, Tsubakimoto Chain took the lead in the industry with the establishment of a maintenance services business.

We offer a wide range of services in accordance with customer needs, such as low-cost, on-call services; full maintenance services based on long-term contracts; and remote maintenance services where diagnosis and repairs are conducted through direct connections with the customer's control computers. In the future, we will extend the service to include materials handling systems from other companies and general machinery that incorporates our power transmission products.



Maintenance service