

# Koyo Seiko

## Ball bearings and steering assemblies

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### Senior Officers

Hiroshi Inoue, Chairman  
Koshi Yoshida, President  
Fumio Morishita, Vice President

### Products

ABS sensors, auto-tensioners, ball bearings, clutches, constant-velocity joints, drive shafts, electronic component systems, hydraulic components, intermediate shafts, manual steering systems, oil seals, one-way clutches, plastic functional parts, power steering systems, EPS systems, roller bearings, steering columns, and steering joints

### Plants

Argentina (1), Brazil (1), China (5), Czech Republic (1), France (6), India (1), Japan (7), Malaysia (1), Philippines (1), Romania (1), South Korea (1), Thailand (3), USA (4), UK (1)

### Sales

*Group:* ¥505.2bn (US\$4.78bn, 31 March 2004) (Year to 31.03.04)  
*Automotive:* ¥441.0bn (US\$4.18bn, 31 March 2004) (Year to 31.03.04)

### Employees

6,185 (2004)

**Koyo Seiko is a leading producer of ball bearings and auto steering assemblies, affiliated with Toyota Motor, through a 24.9% stake. The company is Japan's largest and world's second largest maker of steering systems for automobiles, with a 23% global market share. Koyo Seiko pioneered the world's first electric power steering system (EPS). Koyo Seiko is also the world's fourth largest producer of ball bearings. Over 80% of the company's sales are geared towards the automotive market.**

Koyo Seiko's business is divided into four distinct divisions, although two divisions, bearings and steering systems, make up 87% of Group sales. The four divisions are: bearings, steering systems, automotive products and mechatronic and factory automation products. Bearings make up 47% of Group sales, with bearings for automotive use making up 67% of Group bearing sales. Other non-automotive uses of bearings include computer hard drives, machine tools and electrical machinery. Steering systems make up 40% of Group sales. The other two divisions make up 13% of Group sales. The automotive products division includes such products as clutches, constant-velocity joints, oil seals and piston seals. The mechatronics and factory automation products division includes both automotive-related and non-automotive products and are primarily manufactured by Koyo Seiko's subsidiary, Koyo Machine Industries. Products include a range of factory automation (FA) Systems, heat technology products and electronic components systems, such as electronic counters and rotary encoders. Automotive-related products for this division include: precision ball screws, traction-drive acceleration units, drive shafts and magnetic screws.

Koyo Seiko has a capital tie-up with Fuji Kiko. The company owns 33.3% of Fuji Kiko's shares, making it the largest shareholder.

Geographically, Koyo Seiko has a significant exposure to the overseas market, which makes up over 50% of Group sales. Europe (France, Germany, Netherlands, Romania, Spain and the UK) makes up the largest share with 30%, this is followed by North America (Canada and the US) with 11%, Asia and Oceania (Australia, China, Malaysia, Singapore and Thailand) with 11% and other regions (Panama), with 1%. The company has been aggressive in expanding its business outside of Japan and currently has 41 consolidated subsidiaries worldwide: 16 in Japan and 25 across Europe, Asia, and the Americas. In terms of manufacturing capacity, Koyo Seiko boasts 11 bearing plants and 14 steering plants worldwide.

Koyo Seiko supplies Toyota and other Japanese car manufacturers. It also supplies foreign carmakers, such as Audi, Citroen, Peugeot, Renault and Volkswagen.

### Recent Developments

**Corporate strategy** Over the years, Koyo Seiko has successfully utilised its technical and manufacturing know-how from its bearings business to expand into other technologically related businesses. Currently, the company boasts a sizable share of the world's power steering market and is well-known for its development of the electrically-controlled steering systems. The following are Koyo Seiko's strategic goals, as outlined by its management:

- Bearing business to remain the company's core competency and the base for developments of a growing diversity of high-performance automotive components.
- Continue efforts to improve the EPS system product, such as to provide greater driving feel, less engine power loss and be more environmentally friendly.
- Expand production capacities of plants in the US, Europe and Asia, as well as strengthen manufacturing systems, primarily for steerings and EPS. Koyo Seiko wants to increase its market share of overall steerings in Europe from 30% to 40% by the end of 2005.

- Boost cost competitiveness by streamlining the manufacturing process, improve productivity, promote business alliances to realise cost savings from joint procurement and product development.

In line with these strategies, Koyo Seiko has undergone various key developments as follows:

**Acquisitions and divestments** In August 2003, Koyo Seiko announced that it would buy out Northrop Grumman's 51% stake in its US joint-venture TRW Koyo Steering Systems, for roughly ¥9bn (US\$77m, 31 August 2003). The company was re-named Tennessee Koyo Steering Systems and became a wholly-owned subsidiary of Koyo Seiko by 31 March 2004. The plant manufactures power steering systems for automobiles. This move goes hand-in-hand with Koyo Seiko's strategy to increase orders from the Big Three US carmakers and other local manufacturers.

#### **Joint-ventures**

- In November 2003, Koyo Seiko established a joint-venture company in Xiamen, Fujian (China), to manufacture steering columns. The partners in the joint-venture are: Fuji Kiko 35%, Shye Shyang (Taiwan) 35%, Koyo Seiko 20%, Chen Tai Fong (Taiwan) 5% and Toyota Tsusho 5%. The joint-venture partners are projecting annual production capacity to reach 600,000 units by 2007 with sales of around ¥1.2bn (US\$10.9m, 30 November 2003). The joint-venture will initially supply Japanese carmakers in China and later expand sales to include US and European carmakers. The joint-venture will initially employ 80 people and production is expected to begin in May 2005.
- In October 2002, Koyo Seiko announced that jointly with Toyota Motor, Toyoda Machine Works and Denso, it would establish Favess Co. Ltd., to develop and sell electric-hydraulic power steering systems. The new company is located in the technical development centre of Toyoda Machine Works in Okazaki (Japan). Koyo Seiko has a 45% stake, Toyoda Machine Works 35% and Denso and Toyota Motor, 10% each. The four companies hope to create an efficient development system for EPS equipment that will allow them to compete successfully in the global market. Favess is expected to generate ¥50bn (US\$407m, 30 October 2002) in sales by 2005.

#### **Investments**

- In April 2002, Koyo Seiko announced that it would boost production of EPS systems in France, in response to an increase in orders from the PSA Peugeot Citroen Group. In May 2002, Koyo Seiko began building a new factory on the site of an existing production subsidiary in Dijon (France). This has increased the production capacity by 60%, to 1 million systems a year. The new plant produces EPS systems for the Peugeot 206, with a target of 800,000 systems by 2004. Combined with scheduled production increases at another French subsidiary, the new plant will boost Koyo Seiko's annual output in France from 600,000 systems in 2001 to 1.5 million systems in 2004. The new plant in Dijon began production at the end of 2002.
- In March 2003, Koyo Seiko, jointly with Fuji Kiko, established a subsidiary in Plzen (Czech Republic), Fuji Koyo Czech, to manufacture steering columns. Fuji Kiko holds 66.6% and Koyo Steering Europe 33.4%. The plant will be located in the Borskapol Industrial Park, with a production floor of roughly 5,200 square metres in size, employ 125 people and have a capacity to produce 1.2 million steering column units per year. The plant is expected to begin production in 2005 and will primarily supply Peugeot and Renault.

#### **Contracts**

- In November 2003, Koyo Seiko received an order worth roughly ¥35bn (US\$319.3m, 30 November 2003) for EPS systems from BMW, for its Mini Cooper. BMW ordered 1.05 million systems and Koyo Seiko is to start supplying them by September 2006, roughly 220,000 a year over five years. French production subsidiary, Koyo Steering Dijon Saint Etienne, will make the power steering equipment.
- In April 2003, Koyo Seiko received an order for 350,000 EPS systems worth about ¥10bn (US\$83.5m, 30 April 2003) from DaimlerChrysler. The steering mechanisms are to be used in the A-Class Mercedes-Benz and are to be delivered starting June 2004. Koyo Seiko has announced that it will invest roughly ¥1bn (US\$8.4m, 30 April 2003) to build another production line at KSDSE, a subsidiary in France, to boost the unit's annual output capacity by 50%, to one million units. Koyo Seiko has so far supplied such

parts primarily to Renault and Peugeot. The company hopes that the supply contract from DaimlerChrysler will pave the way for supply contracts to other European and US carmakers to materialise.

- In November 2002, Koyo Seiko received an order from General Motors to supply 300,000 EPS systems for use in its Saturn line of vehicles. This will mark the first use by the US carmaker of EPS systems, as most US-made cars currently use hydraulic power steering. Koyo Seiko's manufacturing subsidiary in Virginia will handle production. It is expected that Koyo Seiko will expand its US production lines by the year ending 31 March 2005, targeting sales of ¥20bn (US\$163.2m, 30 November 2002) in the US for power steering systems.

**New Product Developments** Koyo Seiko places significant emphasis on its R&D operations and currently has five key technical research centres globally. The primary R&D is undertaken at Koyo Seiko's headquarters in Japan, at their Engineering and Technical Centre. This facility is supported in turn by four other technical centres, two each in Europe (France and the Netherlands) and the US (both in Michigan). One of the two centres in each location specifically focuses on steering systems – in Europe it is the technical centre in France. In the year ending 31 March 2003, Koyo Seiko spent ¥15.6bn (US\$130.2m, 31 March 2003) on R&D, a 2% increase over the previous year.

In 2003, Koyo Seiko was involved in developing the basic technology for a highly durable type of variator that will make it possible to install continuously variable transmission (CVT) systems in even large vehicles, such as trucks and recreational vehicles (RVs) with 5.5-litre engines. The new device is a full-toroidal variator, made from a roller positioned between a disc that transfers power from the engine and a disc that transfers the power to the axle. The transmission gear ratio is changed in a continuous manner, by altering the angle of this roller, and thus the relative rotation speeds of the two discs. By combining this full-toroidal variator with a set of reduction gears for finer control over power, it should be possible to design a CVT that does not require a torque converter, which tends to boost fuel consumption. Such a CVT would boast more than 20% better fuel consumption than a conventional automatic transmission system, according to Koyo Seiko. The company is now testing the new variator and aims to have a practical version ready for commercial vehicles in 2008. It will supply the device to British CVT developer Torotrak Plc.

**Financial Overview** For the year ending 31 March 2004, Koyo Seiko posted Group sales of ¥505.2bn (US\$4.78bn, 31 March 2004), up 13.1%. The company saw strong sales across its product line-up. For example, bearing sales increased 4.6% to ¥221.0bn (US\$2.09bn, 31 March 2004), reflecting rising demand for bearings from carmakers in both domestic and the overseas markets. Also, steering sales surged 22.1% to ¥219.5bn (US\$2.08bn, 31 March 2004), primarily due to expanded sales in Japan and Europe. Koyo Seiko was able to restore strong profits, as reflected in an impressive 85.1% rise in the operating profit to ¥21.5bn (US\$203.6m, 31 March 2004) and a 80.7% increase in pre-tax profit of ¥21.8bn (US\$206.4m, 31 March 2004). These results were mainly due to the stronger than expected sales and successful implementation of its cost cutting campaign. However, net profit declined 5% to ¥7.9bn (US\$74.8m, 31 March 2004), due to an adjustment in the provision for corporate tax.

**Outlook** Koyo Seiko, as with most automotive suppliers, will continue to experience a difficult business environment. However, the company has fared better than many of its competitors, by starting its internal restructuring and building its overseas production network fairly early on. Koyo Seiko's management have stated that they will continue to improve profitability by networking their overseas production bases in an efficient manner. The company will benefit from the growing demand for EPS systems, which are more energy efficient than hydraulic systems, both domestically, as well as in Europe and the US. In conjunction with targeted R&D, cost reduction and high product quality, Koyo Seiko should be able to boost its competitive position in this specialised field in the long-term.