

The Source of Growth

Increasing Global Market Share with Outstanding, Unrivaled Technologies

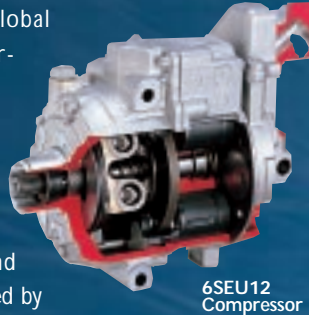
Toyota, a leading global manufacturer of car air-conditioning compressors, produced more than 10 million units during the fiscal year ended March 2000. The compressors

Toyota develops and manufactures are distributed by DENSO Corporation (DENSO) and are used not only by Toyota Motor Corporation (TMC) but also by other leading automobile manufacturers worldwide.

As a result of its unsurpassed product development and technologies, global automobile manufacturers continue to use Toyota's products. Furthermore, Toyoda prepares for the future by developing new products, thereby contributing to the innovative technology of automobile manufacturers.

In the 1980s, Toyoda succeeded in developing a compact and lightweight ten-cylinder swash plate fixed displacement type compressor, which displays excellent reliability at high operating speeds. In the 1990s, as concerns about global environmental problems grew, Toyoda developed a one-way swash plate variable displacement type compressor that reduces the burden on the engine, raises overall efficiency and lowers fuel consumption. Furthermore, Toyoda developed and marketed a clutchless variable displacement type compressor offering excellent acceleration and low fuel consumption. These products were developed and manufactured several years ahead of the competition, indicating the competitive superiority of Toyoda in the global marketplace. Toyoda is also moving ahead with the technological development of new refrigerants to replace chlorofluorocarbons (CFCs).

The forklift and car air-conditioning compressor businesses are aiming to capture an appreciable share of global markets by leveraging their technological superiority. Toyoda leads the world in developing and producing counterbalanced forklifts, with development efforts focused on the environmental and safety needs that



6SEU12 Compressor



GENE0-B (7FB)

will be essential for forklifts in the future. Forklifts are classified on the basis of their drive system into engine and electric-powered models. Toyoda is the only manufacturer to independently develop and manufacture engines dedicated to forklifts. Based on this strength, Toyoda has developed engines with high output and low fuel consumption to reduce their impact on the environment. On the other hand, growing environmental awareness has led to an increase in market demand for electric-powered forklifts. Toyoda has therefore developed the GENE0-B (7FB overseas), an electric-powered forklift that is the first in the world to be equipped with a dedicated alternating current (AC) drive system as standard equipment.

In the past, the conventional direct current (DC) drive system could not deliver enough power for a forklift. In order to overcome this problem, Toyoda has independently developed a dedicated low voltage and large current semiconductor, allowing forklifts with high output to operate for long hours on a single charge. As a result, Toyoda has realized a system that other forklift manufacturers have found difficult to emulate.

To enhance safety, the engine-powered counterbalanced forklift GENE0 (7 Series overseas), launched in 1998, was equipped with the "System of Active Stability" (SAS) and received wide acclaim as the next-generation in forklift safety technology. With an electronically controlled hydraulic system, the SAS is an advanced safety system that enhances the stability of the vehicle and prevents it from tipping over.

The GENE0-B won the Good Design Award in Japan, and is attracting great interest throughout the world.

As a result of these technologies, Toyoda captured a 40 percent share of the Japanese forklift market for the first time.



The AC controller developed for the GENE0-B

Global Development

Penetrating Global Markets by Analyzing Market Characteristics and Developing Optimum Strategies for Individual Markets

Toyoda analyzes market environments and characteristics throughout the world and establishes production and development strategies for each business sector, product and region. Furthermore, Toyoda plans, develops and manufactures new products targeted at global markets.

The car air-conditioning compressor business has already captured a substantial share of the global compressor market, and production exceeded 10 million units during the year ended March 2000. Of these, 81 percent were produced in Japan and the rest in the United States. For many years, Toyoda's compressor production bases were located only in Japan and the United States. With production beginning in Germany from April 2000, however, Toyoda now has production bases in the three main global markets of Japan, North America, and Europe. By placing manufacturing operations close to customers, Toyoda will be able to tailor its products swiftly to reflect the needs of local markets and minimize foreign exchange risks. Both overseas production bases — Michigan Automotive Compressor, Inc. (MACI) in the United States, and TD Deutsche Klimakompressor GmbH (TDDK) in Europe — are managed through joint ventures with DENSO Corporation.

In the last fiscal year, about 4.3 million compressors were sold to major automobile manufacturers in Japan, establishing Toyoda as the market leader. In North

America, 3.7 million compressors were sold to Japanese automobile manufacturers for locally manufactured cars as well as to major American automobile manufacturers. Sales in North America focused on fixed displacement type compressors, which have excellent reliability at high operating speeds. In Europe, Toyoda sold 2.7 million units, mostly variable displacement type compressors for luxury cars.

In the future, Toyoda plans to increase compressor sales in North America and Europe, which Toyoda believes have good prospects for expanded sales.

Because the number of air conditioning systems installed in cars, particularly in the European market, is expected to rise steadily, Toyoda anticipates that demand for compressors will increase accordingly. Therefore, Toyoda will strive to expand sales by developing and expediting the availability of products that meet the market's needs. Products such as compact variable displacement type compressors will attract new customers and open up new markets.

The forklift business is experiencing severe market competition as mergers, acquisitions and alliances take place on a global scale. The markets of advanced countries are mature, so the demand for materials handling equipment is cyclical. The demand for forklifts tends to reflect capital investment decisions of customers, which in turn follow economic trends.

Major Manufacturing Bases Outside Japan



1. Michigan Automotive Compressor, Inc. (MACI)/Compressor
2. Toyota Industrial Equipment Mfg., Inc. (TIEM)/Forklift
3. Toyota Industrial Equipment S.A. (TIESA)/Forklift

4. Toyota Industry Kunshan Co., Ltd. (TIK)/Foundry
5. Kirloskar Toyoda Textile Machinery, Ltd. (KTTM)/Textile Machinery
6. TD Deutsche Klimakompressor GmbH (TDDK)/Compressor

(As of March 31, 2000)

Growth Strategy

Toyoda has established production bases in Japan, North America and Europe to increase its presence in global markets. During the past fiscal year, Toyoda manufactured about 64,000 forklifts worldwide. The production base in the United States, Toyota Industrial Equipment Mfg., Inc. (TIEM), is a joint venture with Toyota Motor Corporation (TMC). In France, Toyota Industrial Equipment S.A. (TIESA) is a joint venture with both TMC and Manitou BF S.A. About 38,000 forklifts are manufactured in Japan, 18,000 in the United States and 8,000 in Europe.

Toyoda holds a competitive advantage in the manufacture of counterbalanced forklifts, enjoying a substantial share of world markets. However, Toyoda's

focus on counterbalanced forklifts has hindered the penetration of markets for warehouse equipment. The warehouse equipment market is large in North America and is especially important in Europe. To expand its share in the North American and European markets, Toyoda acquired distinguished forklift manufacturer BT Industries AB of Sweden in June 2000.

BT Industries has a competitive edge in warehouse equipment. Developing its business on a global scale, BT Industries has established firm bases, particularly in Europe and North America. Toyoda and BT Industries complement each other in market and product lineup. With a view to becoming the world's leading forklift manufacturer, this is a perfect match of strategic importance.

Strengthening Toyoda's Management Foundation

Accelerating Growth by Honing Production Technologies for Automobiles and Engines



Assembly line for the Vitz (Yaris)

In the Automobile Segment, the vehicle (automobile assembly) and engine businesses form Toyoda's foundation. As a member of the Toyota Group, Toyoda is responsible for continuously improving quality and reducing cost in these businesses, as well as proposing new areas to develop. Therefore, these businesses play an important role in expanding sales of the Toyota brand.

In the vehicle business, the Vitz (exported to Europe as the Yaris) met with such an enthusiastic response that orders surpassed expectations. In order to accommodate the increase in production of the Vitz (Yaris), Toyoda raised the capacity of the production line at the Nagakusa plant.

As a result, the annual production capacity of the Vitz (Yaris) increased from 170,000 to 220,000 units and makes a significant contribution to Toyota Motor Corporation's (TMC's) production plans.

Toyoda's sophisticated production technologies that enable efficient mixed production with the Sprinter Carib (exported as the Corolla Wagon), will be bolstered to respond quickly and flexibly to fluctuations in production

volume. In Toyoda's role as a manufacturer of small cars under the Toyota brand, Toyoda strives to enrich development functions further and reinforces its ability to produce new models based on the same platform as that of the small cars that Toyoda already assembles.

As a member of the Toyota Group, Toyoda works hard to build trust and a reputation as a highly efficient automobile production base by using advanced information technologies to effectively link all processes from development to production.

In the engine business, Toyoda currently manufactures more than 10 types of engines for automobiles and forklifts at the Hekinan plant, an engine production base of the Toyota Group.

The automobile engines Toyoda produces range from 1,500 cc to 4,500 cc gasoline engines. Toyoda also



Computer simulated virtual factories (V-Comm)

manufactures diesel engines with displacement volumes from 2,000 cc to 4,200 cc, including direct injection types, which are installed in a broad range of vehicles, including passenger cars.

Toyoda also develops engines for forklifts, and is currently manufacturing 1,500 cc to 5,000 cc or larger gasoline and diesel engines to power its forklifts. As these engines were developed solely for our forklifts and Toyoda is the only manufacturer to independently develop and manufacture forklift engines, competitors find them very difficult to imitate. This gives Toyoda a competitive edge in engines that deliver the performance forklifts require.

Another strength is Toyoda's flexible production technologies that allow the efficient manufacture of a variety of engines. Equipped with automatic guided vehicles,



Engine assembly line using automatic guided vehicle systems

Toyoda's unique production line permits different types of engines to be manufactured using the same assembly line.

Toyoda collaborates with TMC on a broad range of development functions including design and evaluation. As a supplier of engines to TMC, Toyoda's engine business plays an important role as the mainstay of its Automobile Segment and contributes to the steady growth and expanding sales of Toyoda.

New Businesses

A New Source of Growth

To develop new businesses areas, Toyoda is focusing on electronics. In 1997, Toyoda established ST Liquid Crystal Display Corp. (ST-LCD), a joint venture with Sony Corporation to manufacture low-temperature polysilicon thin film transistor LCD (poly-Si TFT-LCD) panels. With Sony's technical excellence and Toyoda's advantages in quality control and manufacturing technology, Toyoda aims to build an optimal production system.

Toyoda completed one of the world's largest low-temperature poly-Si TFT-LCD production plants and started production in April 1999. The unique mass-production line incorporating the Toyota Production System assures high quality and productivity. All poly-Si TFT-LCDs manufactured by ST-LCD are sold to Sony Corporation and used for Sony's video cameras and other products.

Distinctive characteristics of the low-temperature poly-Si TFT-LCDs mass-produced by ST-LCD include low electrical power consumption, high definition, fast response and compact size due to the unification of integrated circuits. Because of its advantages over the prevailing amorphous silicon TFT-LCD, the poly-Si TFT-LCD is suited to small-sized digital information devices. The poly-Si

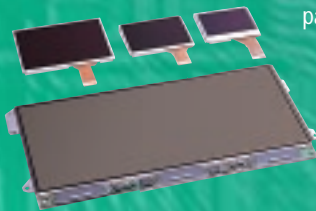
TFT-LCD is expected to be used for personal digital assistants (PDAs) and intelligent transport system (ITS)-related equipment, for which demand is currently increasing rapidly.

The LCD market is expanding, particularly for small-sized portable terminals. With outstanding characteristics, low-temperature poly-Si TFT-LCDs are positioned to become a next-generation LCD, and Toyoda expects the market to grow rapidly in the future. At present, comparatively few businesses are engaged in commercial production of low-temperature poly-Si TFT-LCDs. As a pioneer in these technologies, Toyoda is confident ST-LCD will have a bright future.

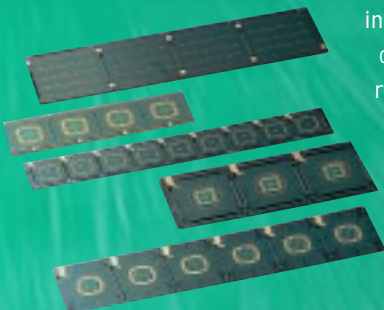
Toyoda has also begun manufacturing plastic package substrates for various types of IC chipsets. In a joint venture with Ibiden Co., Ltd. (Ibiden), Toyoda launched TIBC Corporation, which produces compact, lightweight ball grid array (BGA)-type plastic package substrates that respond to high-function IC chipsets. The plastic package substrates are distributed through Ibiden to the world's major semiconductor manufacturers for use in electronic equipment such as PDAs, mobile phones and personal computers.



ST Liquid Crystal Display Corp.



Low-temperature polysilicon thin film transistor liquid crystal displays (Poly-Si TFT-LCDs)



Ball grid array-type plastic package substrates