

# Business Activities



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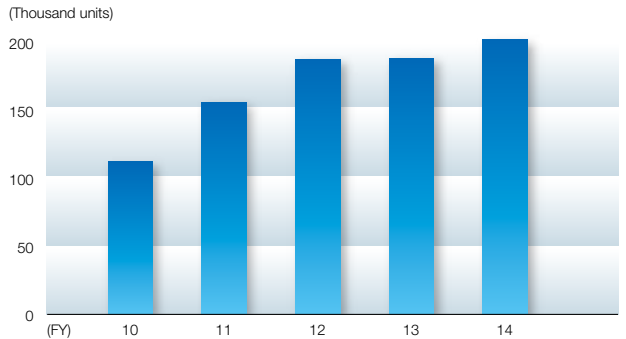
# Materials Handling Equipment

As a market leader with extensive knowledge of global logistics needs, Toyota Industries provides a range of advanced materials handling equipment, including lift trucks, and outstanding logistics solutions to customers worldwide.

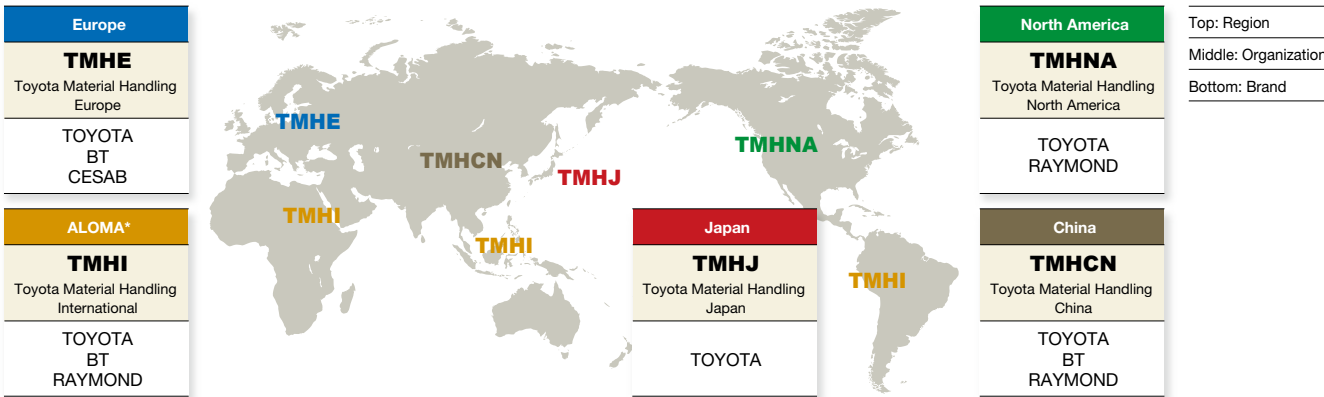
## Business Overview in Fiscal 2014

In the materials handling equipment market, sales remained strong in Japan and expanded overseas, reflecting growth in China and North America and a recovery in Europe. Based on the conditions of respective markets, Toyota Industries augmented its production and sales structures and launched new products. At the same time, we undertook efforts to expand our business domain. As one example, we made U.S.-based Cascade Corporation, a manufacturer and distributor of lift truck attachments, into Toyota Industries' consolidated subsidiary in March 2013. As a result, unit sales for fiscal 2014 increased 14,000 units, or 7%, to a total of 199,000 units over the previous fiscal year. Net sales rose ¥212.8 billion, or 36%, to ¥809.2 billion.

### Materials Handling Equipment Sales



### Toyota Material Handling Group Organization and Brands



## Toyota Material Handling Group (TMHG)

As a market leader with extensive knowledge of logistics needs across the world, Toyota Industries provides a full range of lift trucks and other materials handling equipment as well as logistics solutions to customers worldwide. Under the TMHG management structure, we engage in business under the TOYOTA, BT, RAYMOND and CESAB brands. Mutually utilizing the sales and development strengths of each brand, TMHG is promoting business expansion on a global scale.

## Business Activities in Fiscal 2014

With the global economy continuing to recover moderately, the lift truck market in 2013 posted a mild increase in sales in Japan, Europe and some emerging countries while showing drastic year-on-year growth in North America and China. In Japan, an upturn in corporate earnings pushed up capital investment, and we proactively implemented various sales expansion activities. In North America, we reinforced our ability to accept large orders covering expansive geographical areas by leveraging the appeal of the TOYOTA and RAYMOND brands. We also focused on expanding sales in Europe primarily through the enhancement of our sales networks in Russia and other countries. Our efforts in emerging countries involved boosting our capabilities both in

terms of manufacturing and sales. We strived to enhance our sales structures and accelerated sales promotion activities in China and India, while commencing operations at a new lift truck production plant in Brazil. We also set up bases to provide financing services in Mexico and France. Integrating these services into the existing sales and after-sales services structures, we now have a comprehensive system in both countries to satisfy the needs of our customers throughout the product lifecycle, from purchase of products to maintenance and replacement.

As for the Materials Handling Engineering Business, which is represented by automated storage and retrieval systems and automatic guided vehicles (AGVs), we worked to meet a wide range of needs by providing consulting services for customers' logistics-related issues as well as assisting them with installation and operation of equipment and promoted sales in the mail order, health care, pharmaceutical and other industries that are performing well. In response to the growing need for greater efficiency in the handling of shipping containers spurred by a rise in port logistics volume, we are aiming for sales expansion of AGV systems for cargo containers based on a pool of technologies we have accumulated in the field of AGVs over the years.

In the field of aerial work platforms, demand fell in the electric power industry, our principal customer in Japan, as power companies cut back on capital investment. In the leasing and railway industries, however, demand grew in line with various factors, such as an upturn in capital investment in the leasing industry and increasing demand for mechanization of work processes in the railway industry. Accordingly, Aichi Corporation, which possesses the top brand of aerial work platforms in Japan, posted higher sales. Aggressive sales promotion activities also led to a rise in sales outside Japan. On the whole, sales exceeded the previous fiscal year's level.



Aichi Corporation's aerial work platform

## Japanese Market

### New Record High for No. 1 Market Share\*1 in Lift Truck Sales

In 2013, the Japanese lift truck market expanded moderately. Toyota Material Handling Japan (TMHJ) sought to increase sales in the manufacturing industry, in which there has been an upswing in capital investment, primarily for transportation equipment. In such steadily performing industries as warehousing, TMHJ proactively promoted sales of the GENEIO-R and High Pick Lift electric lift trucks released in 2012. As a result, unit sales in fiscal 2014 increased 11% year-on-year to 37,000 units. TMHJ achieved a record-high share of 46.6% in the Japanese market, topping the previous year's record for the second consecutive year in 2013, and maintained its top position\*1 for the 48th consecutive year.

\*1: Surveys by Japan Industrial Vehicles Association and Toyota Industries Corporation, 2013



GENEIO-R High Pick Lift

### Container Transport AGV System Receiving Design Awards in Asia

In December 2013, Toyota Industries' container transport AGV system was a dual winner of the Design for Asia Award 2013\*2, receiving the DFA Grand Award and the DFA Special Award for Technology. This AGV system comprises AGVs, which carry containers between container berths and storage yards, and software programs that control the scheduling of these AGVs. The system went into operation in April 2012 at a container terminal operated by Tobishima Container Berth Co., Ltd. within the Port of Nagoya.

\*2: An international award program sponsored by the Hong Kong Design Centre to recognize the most influential and outstanding designs within Asia. Held every year since 2003.



These two awards were given to the AGV system in recognition of its contribution in greatly improving the operational efficiency of cargo handling at seaports as well as its futuristic design.



Container transport AGV system

### Initiative to Achieve Greater Customer Satisfaction

In November 2013, TMHJ held the 2nd TMHJ Service Skills Contest, in which a service representative from the 40 dealers across Japan participated. The aim of this contest is to enhance dealer service to ensure that our products are always used by customers in the best possible condition.

In addition to offering a broad product lineup, TMHJ will continue to contribute to improvement of customers' logistics efficiency by providing meticulous services and a range of logistics solutions.



Service Skills Contest

## North American Market

### Maintaining Top Market Share\*

The North American lift truck market expanded in 2013 on the back of a strong economy. Toyota Material Handling North America (TMHNA) remained the market share leader\* in fiscal 2014 with combined unit sales of TOYOTA and RAYMOND brands of approximately 67,000 units, up 14%.

Toyota, as a full-line supplier of lift trucks, remained the market share leader\* for the 12th consecutive year, and Raymond continued to hold its number one\* market share position in narrow aisle electric lift trucks.

\* Survey by Crist Information & Research, LLC, 2013

### Proactively Launching New Products

Toyota expanded its product offering in fiscal 2014 with the 3.5- to 8.0-ton capacity 8-Series lift trucks powered by new Toyota designed and built engines. Thanks to new engineering design advancements in engines, TOYOTA's 8-Series lift trucks feature downsized displacement and provide the same or greater horsepower and torque compared with previous models, while achieving greater fuel savings and fewer emissions. (See Special Feature 1 on pages 16–19 for details.)

In fiscal 2014, iMonitor was introduced to further support the iWarehouse fleet management system by Raymond.



8-Series internal-combustion lift truck

Able to be simply installed on any lift truck, iMonitor is a Raymond-manufactured fleet management product that also features the daily operator checklist, vehicle access control and impact detection. Raymond upgraded the iWarehouse user interface in other areas as well to take the entire system to a higher level.



iMonitor fleet management device

### Strengthening Production and Sales Structures

In November 2013, Toyota Material Handling, U.S.A., Inc. (TMHU), a sales base for TOYOTA-brand products in North America, relocated its head office from California to a site adjacent to Toyota Industrial Equipment Mfg., Inc. (TIEM), a production base located in Indiana.



Opening ceremony for TMHU's new head office

Placing the production and sales bases in close proximity will enable a quick and accurate response to customer needs through an integrated chain of processes from development and production to sales and after-sales services.

Since commencing operations in 1990, TIEM has been continuously and efficiently producing high-quality lift trucks. In addition, it plays an important role as a mother plant for

the lift truck production plant in Brazil that started operations in October 2013, providing instructions in such areas as production and quality management. TIEM also exports components for the Brazilian plant, progressively increasing its importance within the Toyota Industries Group's global lift truck production structure.

### Aiming for Industry-Leading Product Offerings and Customer-Oriented Solutions

The North American market is expected to show continued growth in 2014. TMHNA will continue to explore ways to enhance synergies by maximizing the strengths of the TOYOTA and RAYMOND brands. Through leading products and innovative solutions, TMHNA aims to offer energy efficiency and customer productivity benefits, thereby maintaining its leadership position in North America.

## European Market

### Increasing Unit Sales by Leveraging Market Recovery

Sales units in the lift truck market in 2013 were on par with the previous year as European economies turned the corner on a recession and started to return to positive growth. Amid these conditions, Toyota Material Handling Europe (TMHE) engaged in sales expansion activities and worked to strengthen services. As a result, TMHE posted sales of 59,000 units, up 1%.

### Enhancing Product Offering

In addition to the conventional torque converter transmission, TMHE introduced a hydrostatic transmission as an option on the Toyota Tonero internal-combustion lift truck. The hydrostatic transmission supports agile materials handling and ensures a responsive engine brake. The Toyota Tonero is highly acclaimed for its ease of operation, durability and reliability.

Following successful field tests with customers that confirmed the product's quality and durability, TMHE released a broad range of lithium-ion lift trucks, including BT Levio electric low lift trucks and BT Optio order pickers. Equipping the lift trucks with lithium-ion batteries reduces the frequency of recharging and battery changes, thereby



contributing to the improved work efficiency of customers who operate lift trucks for long hours while at the same time realizing energy savings.



Toyota Toner



Lithium-ion lift trucks

### Proactively Participating in Exhibitions and Making Appeals to Customers

TMHE proactively attends various exhibitions to pitch its full-line products and excellent servicing capabilities directly to customers. In fiscal 2014, TMHE exhibited products and services at numerous logistics fairs, including CeMAT Russia, the International Materials Handling Exhibition (IMHX) (UK) and LogiMAT (Germany), as well as *inter airport* Europe (Germany). At these exhibitions, TMHE appealed its comprehensive capabilities, including a wide range of products, tailor-made service system and logistics solutions.



TMHE booth at IMHX 2013

### Further Enhancing Product Appeal and Service Quality to Expand Market Share in Europe

TMHE completed the 1-channel, 2-brand structure\*1 of distributors in primary countries in Europe in its efforts to realize stronger sales and service networks that include a newly established sales subsidiary in Russia. This structure is designed to expand TMHE's market share through enhanced appeal of its products and service quality.

\*1: To integrate separately operated sales channels for TOYOTA- and BT-brand lift trucks

### ALOMA\*2 and Chinese Markets

#### Increasing Unit Sales through Proactive Market Development

Toyota Material Handling International (TMHI) covers the ALOMA\*2 markets of Asia, Latin America, Oceania, the Middle East and Africa, while Toyota Material Handling China (TMHCN) covers the Chinese market.

Despite a deceleration in emerging countries, the growth rate still outperformed that of developed countries in 2013. As a result, TMHI and TMHCN markets remained strong. Supported by the continuous efforts by both organizations to develop these markets, annual sales in fiscal 2014 reached 36,000 units, an increase of 3% compared with the previous fiscal year.

\*2: ALOMA is a Toyota Industries term for Asia, Latin America, Oceania, Middle East and Africa.

### Reinforcing Production and Sales Operations in Growing Markets

Brazil is the largest industrial vehicle market in Latin America and is expected to grow further. In October 2013, the new plant in São Paulo state commenced production of internal-combustion lift trucks, for which there is strong market demand. In addition to raising the local procurement rate, TMHI will work to reinforce sales and service structures by taking such measures as establishing new sales bases in areas where demand for lift trucks is rising.



Ceremony for completion of first lift truck at the Brazil plant



Production line at the Brazil plant

In India, TMHI's continued efforts to strengthen its sales and service capabilities through Toyota Material Handling India (TMH India) and augment sales expansion led to a significant increase in unit sales.

In China, Toyota Industry (Kunshan) Co., Ltd. (TIK) engages in production of TOYOTA-brand lift trucks. In



TIK's new plant

response to an expansion of the Chinese market and an increase in exports to emerging countries, in June 2013 TIK relocated its plant and augmented its production capacity. TIK will continue to expand production in China as a crucial supply base of TOYOTA-brand lift trucks. On the sales side, Toyota Material Handling (Shanghai) Co., Ltd. (TMHS) is enhancing the roles of Tianjin, Guangzhou and Dalian branches in its efforts to further strengthen sales and service networks in key regions.

### Responding to Market Expansion

In 2014, demand for lift trucks is expected to steadily expand in the ALOMA and Chinese markets. TMHI and TMHCN will work to provide products closely matched to local market needs, further improve after-sales services and enhance activities to support customers' logistics efficiencies.

### TOPIC

The TMHI Distributor Conference held in Nagoya, Japan, in March 2014 was attended by 78 representatives from trading companies and Toyota, BT and Raymond distributors spanning 35 countries. The conference included the confirmation of the mid- to long-term vision and specific action plans, along with a common approach for future directions. Also on the agenda was the awards ceremony for the 2013 TMHI Distributor Award Program. During the conference, participants pledged to work harder to achieve objectives based on the slogan, "Lift Beyond Together."



TMHI Distributor Conference





# Automobile

In the fields ranging from vehicle assembly to engines, car air-conditioning compressors and car electronics, Toyota Industries continues to meet the expectations and trust of its customers.

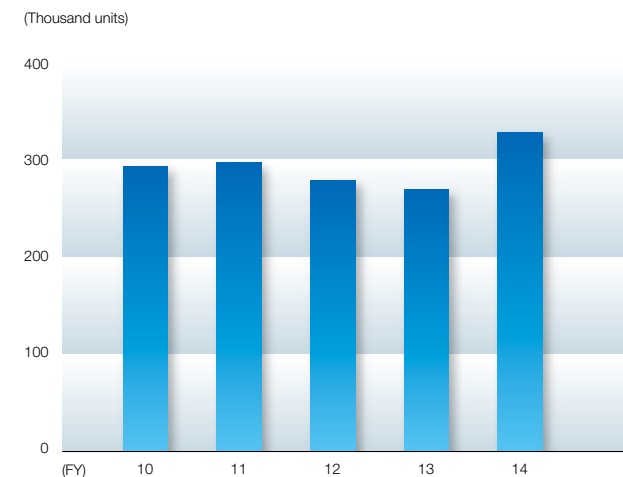
## Vehicle

### Business Overview in Fiscal 2014

In the automobile industry, the Japanese market returned to a path to recovery in the latter half of fiscal 2014, overcoming stagnation in the first half. Overseas, increases in sales in China and North America served to drive continued growth in the global market.

In fiscal 2014, unit production increased by 59,000 vehicles, or 22%, from the previous fiscal year to 328,000 vehicles as a result of an increase in sales of the RAV4 despite a decline in sales of the Vitz (Yaris outside Japan). Net sales were up ¥110.3 billion, or 31%, to ¥467.0 billion.

#### Vehicle Production



### Cumulative Unit Production Reaches 9 Million

Since initiating production of the Publica pickup trucks in 1967, we have been undertaking vehicle assembly for 46 years as a production site of compact to midsize automobiles of Toyota Motor Corporation (TMC). Currently, we engage in production of the Vitz and RAV4 and achieved cumulative unit production of 9 million in July 2013.



Ceremony commemorating cumulative unit production of 9 million

### Plastic Glazing Panoramic Roof for the Prius α (Prius v in North America and Prius + in Europe)

Toyota Industries engages in production of a panoramic roof made of plastic glazing for the Prius α, a hybrid vehicle marketed by TMC in May 2011. The roof is currently a standard feature of Prius + vehicles marketed in Europe.

This product retains the beautiful surface quality typical of a glass roof yet is approximately 40%\* lighter than its glass counterpart, improving vehicle fuel efficiency and thus contributing to the reduction of CO<sub>2</sub> emissions. Toyota Industries will continue to develop attractive new products that leverage the distinctive characteristics of plastic glazing.

\* Survey by Toyota Industries Corporation

### “Our Vitz and RAV4” Initiative for Enhancing Appeal of the Two Car Models

As the sole producer of the Vitz in Japan and with the aim of turning the vehicle into a long-selling series, Toyota Industries collaborates with TMC and its dealers to make various suggestions under the banner “Make Our Vitz More Attractive by Ourselves.” Similarly, to boost the appeal of the RAV4, we plan and develop special-edition vehicles that directly reflect the voice of our customers. Through these endeavors, we seek ways to create more appealing and satisfying vehicles for customers worldwide.

At the same time, we also undertake activities to expand our customer base by enhancing the appeal of the Vitz through our support to motorsports events.

### Highest-Level SEQCD to Contribute to Production of Attractive Toyota Cars

In recognition of Toyota Industries' comprehensive strengths in vehicle quality, delivery, cost and safety as the highest among all Toyota-affiliated automobile body manufacturers, we received from TMC an award for excellence under the Toyota Quality Control Award program for two consecutive years. In the face of the shrinking automobile market in Japan, we are further strengthening our already superior level of safety, the environment, quality, cost and delivery (SEQCD). We also are working to leverage our ability to quickly start up production and a flexible structure in terms of vehicle models and production volume to contribute to production in Japan of Toyota vehicles.

## TOPIC

We participated in the 43rd Tokyo Motor Show held in November 2013 and displayed a concept model of a platform dedicated for use with electric vehicles (EVs). This platform ensures greater safety, achieves body weight reduction and has fewer components through the adoption of a streamlined structure. We also promoted a multifunctional plastic glazing roof that takes advantage of the characteristics of plastic glazing and integrates various functions. In addition, we exhibited products developed based on 3Es (Energy, Environmental protection and Ecological thinking), including car electronics products, an electric compressor for car air conditioners and a turbocharger for industrial diesel engines, as well as a Vitz rally car.



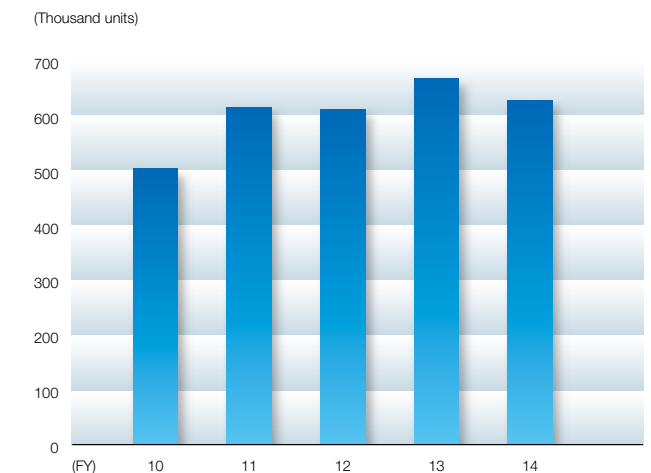
Toyota Industries' booth at Tokyo Motor Show 2013

## Engine

### Business Overview in Fiscal 2014

Production volume in fiscal 2014 declined 40,000 units, or 6%, from the previous fiscal year to 626,000 units. This was attributable mainly to a decrease in production of KD diesel engines despite an increase in production of AR gasoline engines. Net sales dropped ¥14.2 billion, or 7%, from the previous fiscal year to ¥202.5 billion.

#### Engine Production



### Toyota Industries' Diesel Engines Highly Acclaimed by Customers Worldwide

We started production of engines at the Kariya Plant (Aichi Prefecture) in April 1953. In June 2013, cumulative production reached 15 million units.

Toyota Industries' diesel engines, fitted in a variety of Toyota vehicles sold around the world, have gained high market recognition for their cleaner emissions, greater fuel efficiency and higher performance. KD diesel engines, for which production started in 2005, are installed in TMC's Innovative International Multi-Purpose Vehicle (IMV) series and sold mainly in Asia and Latin America. The V-type 8-cylinder VD diesel engine, which was developed primarily by Toyota Industries, is installed in the Land Cruiser selling particularly well in Australia, Russia and the Middle East.

## Developing Competitive Diesel and Gas/ Gasoline Engines in Non-Automotive Fields

Toyota Industries' engines are highly renowned for their excellent environmental performance in non-automotive fields as well. These engines are used for a wide variety of applications, including GENE0-HYBRID diesel-powered internal-combustion hybrid lift trucks, and adopted by GHP\*1 manufacturers in Japan and CHP\*2 manufacturers worldwide.

In March 2013, we developed the Toyota 1KD, a new industrial diesel engine equipped with a turbocharger developed in-house, and the Toyota 1FS, a new gas/gasoline engine.



Toyota 1KD new industrial diesel engine

We further expanded our lineup of industrial engines in December 2013 with the addition of the Toyota 1ZS also equipped with an internally developed turbocharger. These three new engines offer downsized displacement compared with conventional models with equivalent output, which results in higher fuel efficiency, cleaner emissions and a reduction in size. (See Special Feature 1 on pages 16–19 for details.)

\*1: Short for gas heat pump; air conditioner driven by a gas engine

\*2: Short for combined heat and power; co-generation system

## Aiming to Bring Satisfaction to More Customers

Toyota Industries has been making efforts to achieve shorter development cycles with improved efficiency. At the same time, we have been carrying out development of next-generation automobile engines that can clear Euro 6 and other stringent emission standards, as well as engines for materials handling equipment and general purposes, featuring greater fuel efficiency and lower costs.

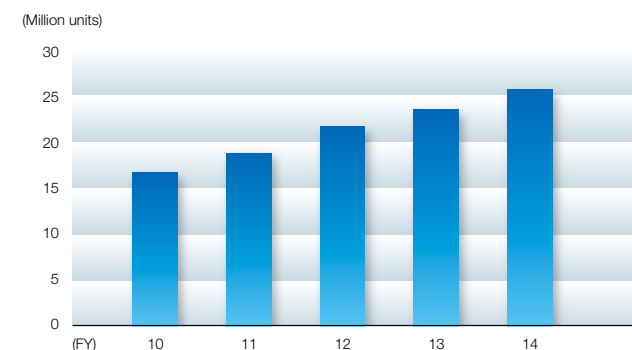
For our general-purpose engines, we will plan, develop and produce a lineup of products matched to customers' needs while actively promoting sales activities.

## Car Air-Conditioning Compressor

### Business Overview in Fiscal 2014

Unit sales of car air-conditioning compressors increased both in and outside Japan, pushing up overall unit sales by 2.06 million units, or 9%, to 25.48 million units. Net sales rose ¥47.6 billion, or 21%, over the previous fiscal year to ¥275.7 billion.

#### Compressor Sales



## Development Efforts Based on 3Es (Energy, Environmental Protection and Ecological Thinking)

More stringent fuel efficiency standards have been enforced in North America, Europe, Japan and China, requiring automobiles to provide extremely high fuel efficiency performance.

Against this backdrop, in the field of car air-conditioning compressors to be fitted in internal-combustion vehicles, the need for fuel-efficient models is increasingly growing for both fixed- and variable-displacement type compressors. In North America, in particular, a shift from a fixed-displacement type to a variable-displacement type is accelerating.

In response, we concentrated on development of a variable-displacement type compressor with considerably greater fuel efficiency while also focusing on an optimum balance between product performance and prices of products targeting emerging countries.

In the field of variable-displacement type compressors, we developed the SES series that simultaneously offers greater fuel efficiency and a reduction in weight, and it has been adopted by TMC in its latest Corolla, as well as by Daimler AG, General Motors Company and Volkswagen AG.



6SES14 compressor (variable-displacement type)



ESA34 compressor (electric type)

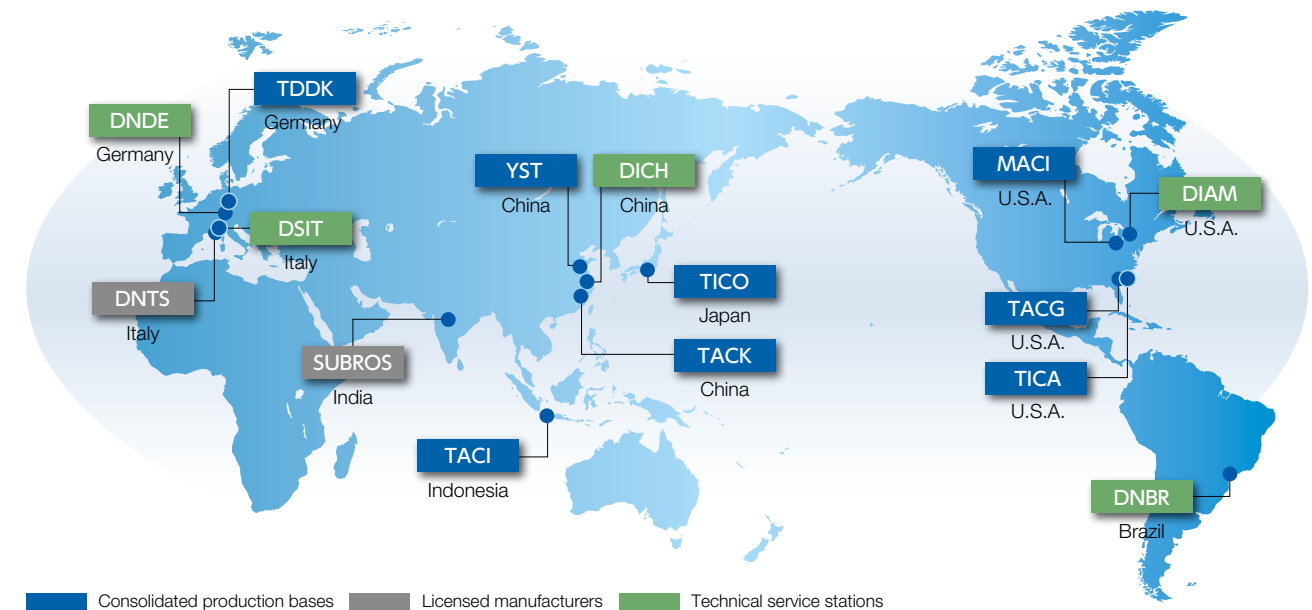
Since initially being installed in the second-generation Prius, our electric compressors for hybrid vehicles (HVs) and EVs have been fitted in all of TMC's HVs from the third-generation Prius to the LS600h.

To offer attractive products to the growing number of automakers worldwide now actively engaged in the development of HVs, we developed the ESA series, which is even more compact and fuel efficient. In addition, a change in its structure makes it easier to mount on vehicles. The ESA series has been installed in HVs of Ford Motor Company, Volkswagen AG and Honda Motor Co., Ltd. Looking ahead, we will accelerate our efforts to expand sales to automakers in Japan, the United States and Europe.

## Establishing Optimum Global Production and Supply Structures

In response to growing demand for variable-displacement type compressors triggered by the anticipated enforcement of more stringent fuel efficiency standards, we are proceeding with augmentation of production capacities of our production bases in North America. In addition, with the aim of increasing the ratio of local procurement, Toyota Industries Compressor Parts America, Co. (TICA), a consolidated subsidiary in North America that produces car air-conditioning compressor parts, commenced

#### Worldwide Bases of Car Air-Conditioning Compressors (As of March 31, 2014)



Consolidated production bases Licensed manufacturers Technical service stations

Toyota Industries' car air-conditioning compressors are widely adopted by automakers around the world, garnering the No. 1\* position in global sales.

\* Survey by Toyota Industries Corporation



production of key functional parts in September 2013.

In Europe, the ASEAN countries and China as well, we are expanding production capacities and increasing the ratio of locally procured parts to accommodate growing demand for car air-conditioning compressors.

In China, in particular, in order to respond to the country's growing automobile market, we established Yantai Shougang TD Automotive Compressor Co., Ltd. (YST), a subsidiary engaged in the production of compressors, in Yantai in Shandong province, with production getting underway in December 2013. In the Kunshan Economic & Technological Development Zone in Jiangsu province, we also constructed a new plant of TD Automotive Compressor Kunshan Co., Ltd. (TACK), another subsidiary that produces compressors, which is slated to go into operation in October 2014.



Yantai Shougang TD Automotive Compressor Co., Ltd. (YST)

In line with our increasingly globalized production operations, the Compressor Division established the Global Training Center of Compressor (GTCC) to maintain and improve product quality and promote the development of human resources. GTCC is a place for manufacturing personnel of our production bases outside Japan to learn the spirit of *monozukuri* (manufacturing) and improve their skills levels. It also gives Japanese staff who will provide skills guidance at production bases outside Japan the opportunity to refine their teaching techniques. The center has thus far accepted personnel from the United States, China and Indonesia.



GTCC training

## Car Electronics

### Business Overview in Fiscal 2014

**Net sales of car electronics products grew steadily due primarily to strong sales of DC-DC converters for the Toyota Prius, Aqua and other HVs as well as an increase in sales of DC-AC inverters.**

### Expanding Experience and Role in Electric-Powered Vehicle Field

Toyota Industries develops and produces electronic components and devices for electric-powered vehicles, including HVs, plug-in hybrid vehicles (PHVs) and EVs. In addition to TMC, we are pursuing business expansion to other automakers in and outside Japan.

### Auxiliary Power Source Devices

A DC-DC converter converts the high voltage of HV batteries to a lower voltage level suitable for operating lights, wipers, horns and other auxiliary devices. In September 2013, we leveraged our technologies accumulated in the field of DC-DC converters for HVs and successfully developed a DC-DC converter for use with start-stop systems, which can suppress a voltage drop at the time of engine restart. Since being adopted in the first-generation Prius, we have continuously developed more compact and lighter weight models, and cumulative production hit 6 million units in October 2013.

A DC-AC inverter is equipped to use home electric appliances in a vehicle, and has drawn a great deal of public recognition for its use as an emergency power source following the Great East Japan Earthquake. Since commencing production in 1995, we have achieved cumulative production of 12 million units in March 2014.

We have developed an on-board charger based on our technologies and cultivated know-how regarding EV chargers developed since the 1990s. The resulting on-board charger is fitted in the Prius Plug-in Hybrid.

Since 2003, inverters for electric compressors for car air conditioners have been supplied internally to the Compressor Division, and cumulative production reached 6 million units in March 2014.



DC-DC converter fitted in the Aqua

### Core Components for Drive Systems

Since first developing inverters for materials handling equipment in 1967, we have been making steady efforts to refine our power electronics technologies.

Utilizing such technologies, Toyota Industries applied its proprietary direct-cooling method to develop a device with significantly higher cooling performance in 2009. We have entered the field of core components for drive systems such as power control units (PCUs) for the third-generation Prius.

In addition to inverters for drive systems utilizing this direct-cooling method, we have developed a powertrain unit for EVs and other core components. For the powertrain unit for EVs, we integrated designs of functional components, such as an inverter, motor and reduction gears, into one package and successfully reduced the size and weight. By integrating hardware with an electronic control unit (ECU),



Powertrain unit for EVs

including control software, we are working to increase the added value as an entire system.

### Charging Infrastructure

Jointly with Nitto Kogyo Corporation, we developed public-use charging stands and home-use charging units for PHVs and EVs. These chargers have been successfully launched on the market.

Our public-use charging stands are being installed primarily in commercial facilities and local government buildings. We supply home-use charging units mainly to Toyota Home and have sold more than 3,000 units, including both wall-mounted and pole-mounted types.



Charging stand

### Accelerating Development Activities to Contribute to Low-Carbon Society

Demand for environment-friendly products with high energy efficiency is expected to increasingly grow, with the trend toward electrification likely to expand not only for automobiles but also for non-automotive products such as materials handling equipment. Enhancement of the charging infrastructure will also take a greater role in promoting the spread of PHVs and EVs.

Targeting the high-growth, electric-powered vehicle market, we will accelerate development of technologies and products in the fields of auxiliary power source devices, core components and systems for drive systems and charging infrastructure, thereby making a significant contribution to the realization of a low-carbon society.





# Logistics

Toyota Industries offers customers highly advanced, efficient logistics services to respond to their diverse needs, including consigned operation of distribution centers; land transportation services; cash collection and delivery and cash proceeds management services; and data storage, management, collection and delivery services.

## Business Overview in Fiscal 2014

Both the logistics services business and the land transportation services business for automotive parts increased. As a result, net sales in fiscal 2014 increased ¥2.3 billion, or 2%, over the previous fiscal year to ¥95.3 billion.

### Planning, Design and Operation of Distribution Centers

Toyota Industries operates distribution centers for various industries and customers. During fiscal 2014, operation of existing distribution centers generated a relatively steady logistics volume. We continued to promote improvement activities at logistics sites based on the thinking embodied in the Toyota Production System (TPS) to enhance the level of services to customers and strengthen our profit structure.

With an aim of optimizing the entire supply chain of each customer, we continued our proactive sales activities by making proposals that leverage the maximum use of the Toyota Industries Group's resources in collaboration with the Materials Handling Equipment Division. As a result, we successfully obtained five new orders for the consigned

operation of distribution centers.

Looking ahead, we will continue to facilitate our proactive sales activities for both increasing orders from our existing customers and acquiring new customers in industries having high growth potential.

### Land Transportation Services

The Taikoh Transportation Group provides land transportation services under consignment from many automotive parts manufacturers. The group collects finished parts from manufacturers, compiles them by their destination and delivers to automakers "what is needed, when it is needed and in the quantity needed."

During fiscal 2014, favorable business conditions in the automobile industry, our principal customer, have generated a steady logistics volume in the transportation of automotive parts.

Under these circumstances, we continued our profit improvement activities by promoting efficient cargo transport while at the same time aggressively undertaking activities to ensure safe and environment-conscious operations.

Aiming to expand business operations, we will continue to further reinforce our sales activities to capture new customers.



Taikoh Transportation Co., Ltd.'s land transportation services

### High Value-Added Services Including Cash Collection and Delivery and Cash Proceeds Management and Data Storage, Management, Collection and Delivery

#### Cash Collection and Delivery and Cash Proceeds Management

Asahi Security Co., Ltd. provides cash collection and delivery and cash proceeds management services throughout Japan on a 24/7 basis to about 2,700 customers mainly in the retail sector, service industries, post offices and financial institutions.

In addition to cash collection and delivery services tailored to each customer's specific needs, Asahi Security offers comprehensive services that include management of gift certificates and accounting operations at customers' retail outlets. Furthermore, the company provides security services integrating the monitoring by security devices and dispatch of security guards on a 24/7 basis. By providing these comprehensive services, Asahi Security aims to become a unique, distinctive company in the primary field of cash collection and delivery and cash proceeds management services.

Asahi Security operates 19 cash collection and delivery centers and 10 logistics sites from Hokkaido to Okinawa Prefecture, thereby setting up a system to respond to customer needs throughout Japan. In fiscal 2014, the company reinforced its service and support networks by relocating and expanding its Sendai Center.

At each business base, Asahi Security conducts regular training on its own as well as emergency training jointly with local police departments in order to provide safe and trusted services to customers.



Asahi Security Co., Ltd.'s cash collection and delivery and cash proceeds management services

#### Data Storage, Management, Collection and Delivery

Wanbishi Archives Co., Ltd. provides support to about 4,000 companies and organizations, including large financial institutions and government agencies, to ensure the security and efficient use of their information assets. Under its robust security structure, Wanbishi Archives offers a comprehensive range of services covering the entire lifecycle of critical information assets in electronic, paper or other forms, from storage and utilization to destruction. These services allow customers to reduce risks, achieve higher business efficiency, and ultimately, to focus on their core businesses.

In the wake of the Great East Japan Earthquake that occurred in 2011, there has been an ever increasing awareness toward placing importance on effective business continuity management (BCM), and Wanbishi Archives has undertaken various initiatives tailored to such needs. As one example, the company established Tohoku Center 2 in Fukushima Prefecture as its 13th business base in Japan. We will continue to open and upgrade facilities, equipment and appropriate operational structures to provide support to customers nationwide.

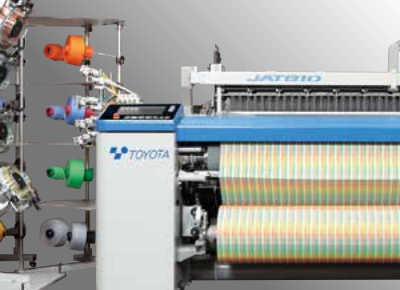
With the use of so-called big data beginning to become more widespread, the volume of data handled by companies and organizations has been growing at an explosive pace. As such, they are now showing a renewed interest in fault-tolerant, cost-effective magnetic tapes to store their data. Wanbishi Archives is responding to the need for ensuring the security of their information assets by adopting various data storage forms and technologies.

Outside Japan, Wanbishi Archives' subsidiary in China provides services to local companies as well as Japanese companies doing business in China. Capitalizing on its experience and know-how accumulated in Japan, Wanbishi Archives will accelerate its efforts to capture business opportunities in growth markets.



Wanbishi Archives Co., Ltd.'s data storage, management, collection and delivery services





# Textile Machinery

Based on the philosophy of founder Sakichi Toyoda, which reflects his strong commitment to manufacturing, Toyota Industries responds to a broad range of needs with its extensive product lineup, from air-jet looms, for which we enjoy the world-leading market share\*1 in unit sales, to spinning frames and roving frames.

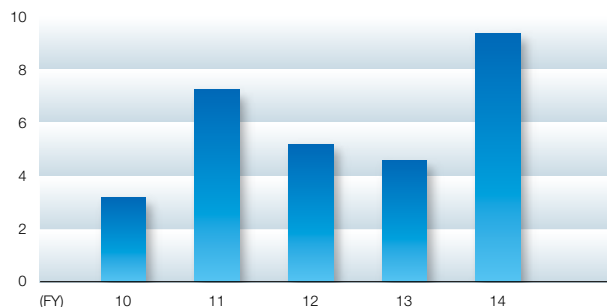
\*1: Survey by Toyota Industries Corporation

## Business Overview in Fiscal 2014

The textile machinery market remained on its path to recovery with an upswing in capital investment in China and India backed by an increase in demand in these countries. Reflecting such circumstances, we posted increases in sales of both spinning and weaving machines, our mainstay products. Unit sales of air-jet looms increased 4,700 units, or 101% year-on-year, to 9,300 units. Net sales were up ¥33.2 billion, or 83%, over the previous fiscal year to ¥73.1 billion.

### Air-Jet Loom Sales

(Thousand units)



## Business Activities in Fiscal 2014

In the field of weaving machinery, we implemented a model change for our widely used JAT710 air-jet loom, which boasts the world-leading market share in unit sales and is highly recognized by customers for its outstanding performance and reliability. We commenced production of a new model, the JAT810, in August 2013. To meet the growing need for higher energy efficiency, the JAT810 is equipped with our newly developed weft yarn inserting system that reduces the amount of air required to carry the weft yarn by 20%\*2 compared with the preceding model, thereby offering unparalleled energy-saving performance. Its productivity has also been improved with the introduction of a higher-speed electronic shedding device that enables the weaving of fabrics with complex patterns. (See Special Feature 2 on pages 20–24 for a related article.)

In the field of spinning machinery, Toyota Industries and Truetzschler GmbH & Co. KG, a German manufacturer of spinning machinery founded in 1888, co-developed the

TCO12 comber, which has been on the market since January 2014. Combining Toyota Industries' weaving machinery technology and know-how accumulated over the years and Truetzschler's spinning machinery technology and expertise which have earned high acclaim among customers worldwide, the new comber provides improved yarn quality as well as excellent stability during high-speed operation.

\*2: Survey by Toyota Industries Corporation

## Further Enhancing Product Appeal

As one initiative to create innovative products, we have been accelerating our R&D activities to integrate the world-class sensor and information processing technologies owned by Swiss-based Uster Technologies AG, which became a Toyota Industries subsidiary in 2012, into our weaving and spinning machinery. By commercializing these technologies in the future, we intend to achieve higher energy savings and improved spinning and weaving quality in order to provide products that are even more satisfying to our customers.

## TOPIC

Toyota Industries displayed and demonstrated our new JAT810 air-jet loom to show how a towel is made at "The Secret behind the Softness—Towels and Towel Looms" exhibition held for about two months from September 28 to November 24, 2013 at the Toyota Commemorative Museum of Industry and Technology in Nagoya, Aichi Prefecture. The program was enjoyed by adults and children alike, who learned the history of towels and their weaving process while actually touching towels and feeling their soft, fluffy texture.



JAT810 at "Towels and Towel Looms" exhibition  
(Photo courtesy of the Toyota Commemorative Museum of Industry and Technology)