

Materials Handling Equipment Business of Toyota Industries Supporting Customers' Logistics

As development and growth of the world economy generate greater movements of goods, their smooth flow underpins the foundation of society, enriching people's lives. As a leading company in the field of lift trucks and other materials handling equipment that are essential in logistics operations, we leverage our comprehensive logistics-related strengths and provide optimal logistics solutions. In this way, we are contributing to the development of society through logistics by serving customers' diverse needs and always remaining the best partner of customers.



Responding to Changes in the Environment Surrounding Logistics by Leveraging the Strengths of Our Materials Handling Equipment Business

The world's rising population and economic growth driven by emerging countries have led to an increase in logistics volume, and consequently, an expansion of the lift truck market. At the same time, increasing e-commerce transactions have necessitated larger logistics sites and even more efficient logistics operations. Moreover, the recent advancement in information and communications technology (ICT) has created diverse applications for logistics sites. These factors have triggered significant changes in the environment surrounding logistics. As an industry leader, we strive to accurately respond to these changes and work closely with customers to satisfy their individual needs.

Toyota Industries' Materials Handling Equipment Business has total strengths covering both "hardware" and "software." Besides providing a broad lineup of products, including high-performance lift trucks with superior economic efficiency, we have extensive, global sales and service networks, knowledgeable and skilled service technicians, as well as the ability to offer solutions for a safe, secure and efficient logistics environment.

This special feature presents two case studies in which we showcase our excellent services that assist a customer in building a logistics environment and our advanced technologies that help another customer to improve logistics efficiency.

Strengths of Toyota Industries' Materials Handling Equipment Business

Global share of lift trucks (Survey by Toyota Industries Corporation)

No. 1 for 16 consecutive years **21%** (2015)

Global unit sales of Toyota Industries' materials handling equipment in fiscal 2016

239,000 units

Highly skilled and knowledgeable service technicians to support customers in each region

Japan
3,000 persons

North America
5,300 persons

Europe
4,500 persons

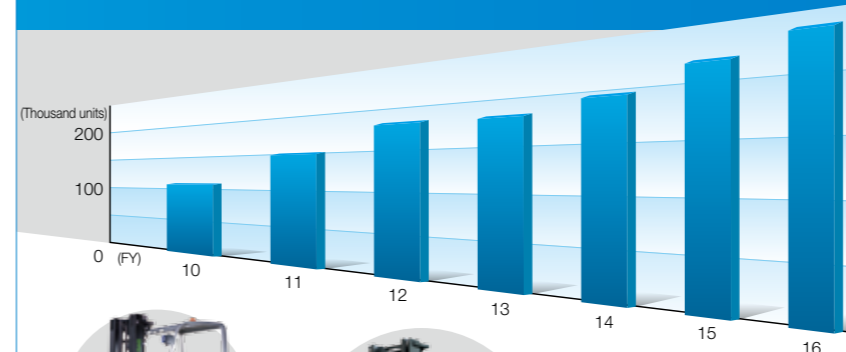
Numerous service facilities to swiftly respond to customers' needs

Japan
270 locations

North America
320 locations

Europe
350 locations

Unit Sales of Toyota Industries' Materials Handling Equipment Serving Global Logistics Needs



B315 [CESAB]



GENE0 [TOYOTA]



Reflex [BT]



GENE0-R [TOYOTA]



Levio P-series [BT]



GENE0-Ecore [TOYOTA]



8000 Series [RAYMOND]

Toyota Industries engages in business under the TOYOTA, BT, RAYMOND and CESAB brands.



Yonago Mokuzaï Ichiba Co., Ltd.
 Yonago Mokuzaï Ichiba hosts a semimonthly wood auction market in a mountainous area approximately an hour's drive from the center of Yonago City, Tottori Prefecture. Toyota Industries' lift trucks are used for sorting logs gathered for the auction and loading them onto trucks.

Toyota L&F/Toyota Material Handling Japan (TMHJ)
 TMHJ has nationwide sales and service networks, supporting and delivering safety and security to customers across Japan with 3,000 highly skilled and knowledgeable service technicians and 1,500 field service vehicles.

Customer Voice

Toyota Industries' lift trucks are both powerful and fuel efficient and generate less emissions. Our operators also appreciate the vehicles' good forward view and ease of getting on and off. We operate in a mountainous area in a harsh climate far from the central urban area, so how quickly we can receive support in case of vehicle trouble is very important. We find it very helpful that if we have a problem, TOYOTA L&F Okayama staff will come to us in an hour and provide on-site support. In addition, regular maintenance visits for checkups and guidance for safe operations also provide a sense of security.



Hiroaki Nagata
 Senior Managing Director
 Yonago Mokuzaï Ichiba Co., Ltd.

Swift Response Underpinning Daily Logistics Operations

Lift trucks operating at logistics sites are closely linked to customers' production activities. As such, it is crucial that they always remain available in optimal condition. Also, service technicians play an extremely important role, as our relationship with customers continues long after they select and purchase our lift trucks. Since the condition of lift trucks also depends on how operators use them, service technicians monitor the usage status of individual customers and offer proper care to ensure the safety of operations, while deepening communications with them so that they fully understand issues such as what care has been taken, what has caused a breakdown and how to prevent a recurrence.

We will continue to contribute to the creation of a better logistics environment for customers by not only developing products meeting diverse needs but also providing responsive services through our global support structure.

CASE STUDY 1

Thorough After-Sales Services to Contribute to the Creation of a Safe and Assured Logistics Environment

While developing its business globally, TMHJ provides extensive support to customers in Japan through an industry-leading nationwide service network, with highly skilled and knowledgeable service technicians. We aim to not only achieve an even higher level of after-sales services through such means as Service Skills Contests but also meet the diverse requests of customers by providing safety training and other support.

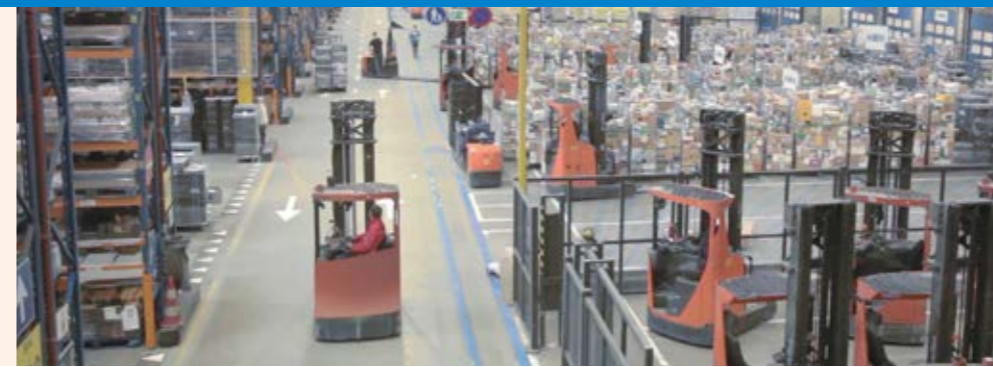
Supporting Customers Even in a Remote and Harsh Working Environment

At wood auctions held in a mountainous area, lift trucks work at full capacity to carry 2,000 tons of logs from dawn until dusk. In winter, sometimes having to deal with more than one meter of snow makes for a harsh environment. Therefore, one of the crucial issues for Yonago Mokuzaï Ichiba had been whether they could receive maintenance services at any time in order to ensure the continued operation of lift trucks.

TMHJ leverages a pool of resources, including a nationwide network, service technicians and field service vehicles, to respond to customers' needs in a well-executed manner. Service technicians of the Yonago Sales Branch of TOYOTA L&F Okayama Co., Ltd. visit Yonago Mokuzaï Ichiba and maintain their lift trucks about three times a month to prevent troubles before they occur. Such assured maintenance services allow the customer to operate lift trucks safely in good condition even in a remote area.



Providing services at Yonago Mokuzaï Ichiba Co., Ltd.



Albert Heijn
 Albert Heijn is the largest supermarket chain in the Netherlands, with 900 stores nationwide and more than 100,000 employees. The company is a subsidiary of Royal Ahold N.V., for which consolidated net sales exceeded €38 billion in 2015. TMHE has been providing electric lift trucks, racks and after-sales services to Albert Heijn's stores and distribution centers, thereby contributing to realizing efficient logistics operations.

CASE STUDY 2

Leveraging Advanced Technologies for Efficient Logistics Operations

In recent years, ICT has evolved in a remarkable way and brought a significant change in corporate activities as well as people's daily lives. Toyota Industries combines its expertise accumulated in various logistics sites with cutting-edge ICT to offer a fleet management system that supports the establishment of an efficient logistics site for customers mainly in Europe and the United States. In the future, we intend to extend the services to Japan and other regions to contribute to improving the logistics efficiency of more customers.

Solving Issues Inherent to Managing a Large Fleet

In dealing with the growing number of stores and commodities, Albert Heijn has added and expanded its distribution centers while seeking and introducing logistics equipment that can maximize operational efficiency. During this time TMHE has provided support to the company in order to ensure the continuity of logistics operations by performing a systematic checkup of each lift truck and providing forward-thinking after-sales services while reducing costs even after the fleet has grown to more than 1,500 units. The growing fleet, on the other hand, has raised several issues. One was that many lift trucks running around the vast space of a distribution center made fleet management difficult. Another issue involved an increase in the number of inexperienced operators and subsequent rises in accidents and repair costs. To counter the situation, TMHE



Toyota I_Site



Toyota I_Site's verification system

TMHE's Toyota I_Site is a solution based on the latest ICT to enable easier fleet management by customers. It visualizes on a tablet device the status of each lift truck, including the utilization rate and battery consumption, to eliminate *muda* (wastes) and ensure more efficient fleet operation. Moreover, it offers a feature to preregister operators, a function to perform a pre-operational safety check and a system to detect accidents. These features make Toyota I_Site effective in supporting the operational safety of the logistics site and reducing accident-related costs.

Toyota Material Handling Europe (TMHE)
 TMHE has Europe-wide sales and service networks, supporting customers with 4,500 experienced service technicians and 3,300 field service vehicles. In the Netherlands, TMHE operates an extensive service structure to quickly respond to customers' requests.

proposed introducing the Toyota I_Site fleet management system.

Customer Voice

The introduction of Toyota I_Site in 2014 has yielded a favorable outcome beyond our expectations.

Firstly, the system offers a feature to check the impact and level of each minor collision on a tablet device from anywhere and monitor the operational status in real time. This allows us to improve fleet management and successfully reduce costs.

Another benefit is an improvement both in terms of safety and the working environment in how operators drive lift trucks. A function that requires operators to perform a pre-operational safety check has served to raise their safety awareness and resulted in a major decrease in accidents and associated damage to lift trucks. A screen that shows the operational status of a lift truck while in operation has also improved operators' awareness toward appropriate and eco-friendly handling of lift trucks.

Toyota I_Site has provided many benefits, and we are truly glad to have introduced the system.



Dirk-Jan van Lienden
 Supervisor at Albert Heijn supply chain
 Albert Heijn

For Building an Even More Efficient Logistics Site

After the introduction of Toyota I_Site, Albert Heijn has been able to make its logistics site safer and attain a considerable reduction in costs that had been required for repairing damaged lift trucks and infrastructure. The company was very pleased with the results and consigns the management of the entire fleet of its lift trucks to TMHE. Looking ahead, TMHE will continue to provide training on safe operations and conduct analysis of collected data to make recommendations for even more efficient logistics equipment and operations. By doing so, TMHE will work to bring about a further improvement in the customer's logistics operations.