

Materials Handling Equipment

TOYOTA Material Handling Company

A Solid Presence in World Markets

TOYOTA Material Handling Company ("TMHC") was established as an in-house company in April 2001 when Toyota Industries took over Toyota Motor Corporation's ("TMC's") Industrial Equipment Sales Division and integrated it with the Industrial Vehicle Division and the Materials Handling System Division.

Note: TMHC is an in-house company (a division of Toyota Industries) and not a legally incorporated entity.

TMHC is a world leader in forklift trucks, with a full lineup of internal combustion and electric models ranging in capacity from 0.5 to over 40 tons. TMHC also develops and manufactures other industrial vehicles, including skid steer loaders and tow tractors for use at airports.

TMHC also manufactures and markets materials handling systems; i.e., products for storing, conveying, sorting and picking.

TMHC offers customers improved efficiency in their materials handling operations by developing a variety of materials handling systems such as automatic guided vehicle systems and automated storage and retrieval systems. Its wealth of know-how in materials handling, which has been accumulated and developed based on the Toyota Production System, helps TMHC provide customers with optimal materials handling solutions.

Note: Toyota Industries' materials handling systems such as racks, automated storage and retrieval systems, and automatic guided vehicle systems are sold only in Japan.

■ Products for the Japanese Market — Industrial Vehicles



Internal Combustion Counterbalanced Forklift Truck



GENEO-B (7FB15) Electric Counterbalanced Forklift Truck



GENEO-E (7FBE15) Three-Wheel Electric Counterbalanced Forklift Truck



Skid Steer Loader (4SDKL8)

■ Products for the Japanese Market — Materials Handling Systems



Partner Rack (Rail-Less Mobile Type) Rail-Less Mobile Rack



Rack Sorter B Automated Storage and Retrieval System (Plastic Container Type)



Rack Sorter P Automated Storage and Retrieval System (Pallet Type)



Automatic Guided Forklift Truck



Road Sorter H (ACBH10) Automatic Guided Vehicle System

■ Products for the North American Market



7FBEU20 Three-Wheel Electric Counterbalanced Forklift Truck



7FBCU25Electric Cushion Tire Counterbalanced
Forklift Truck



7FGCU25Internal Combustion Cushion Tire
Counterbalanced Forklift Truck



7FGU70Internal Combustion Counterbalanced Forklift Truck



7FGCU55-BCSInternal Combustion Cushion Tire
Counterbalanced Forklift Truck —
Boxcar Special Model



6BPU15Electric Order Picker Truck

■ Products for the European Market



7FGF/FDF25Internal Combustion Counterbalanced
Forklift Truck



7FBMF25 *Electric Counterbalanced Forklift Truck*



7FBRE16Coldstore Reach Truck



7PML20Electric Pallet Truck



7FBEF18Three-Wheel Electric Counterbalanced Forklift Truck

These are only a few of the products Toyota Industries has introduced into each market.

Materials Handling Equipment

BT Industries AB

Global Supplier of Warehouse Trucks

Headquartered in Sweden, BT Industries AB ("BT Industries") is the world's leading supplier of warehouse trucks. BT Industries manufactures in seven plants in Europe and North America, where the company has particularly strong customer bases. BT Industries' products contribute to efficient materials handling operations for customers in

approximately 70 countries. BT Industries meets the needs of the entire spectrum of materials handling, with products including hand pallet trucks, electric pallet trucks, reach trucks, very narrow aisle trucks and counterbalanced forklift trucks. Some examples are shown below.





BT REFLEX AC Reach Truck



BT LIFTER Hand Pallet Truck

BT OPUS

Low Level Order Picking



BT MINIMOVER



Electric Pallet Truck





BT ORION Electric Pallet Truck



BT IXION



High Level Order Picking



BT VECTOR Very Narrow Aisle Truck



BT CARGO Counterbalanced Truck





Raymond **Reach-Fork Truck** Reach Truck



Raymond Model 112 Pallet Truck Electric Pallet Truck



Raymond EASi Pacer Stand-Up Counterbalanced Truck Electric Counterbalanced Truck



Raymond EASi Orderpicker Truck Order Picking Truck



Swing-Reach Truck Very Narrow Aisle Truck

Compressor Division

Compressors — the Core of Car Air Conditioners

Toyota Industries is a leading manufacturer of car air-conditioning compressors with outstanding, unrivaled technologies. Such products include a 10-cylinder compressor with swash plate and fixed displacement, one-way swash plate compressor with continuous variable displacement, scroll-type and vane-type compressors, and electric compressors for electric vehicles.

In fiscal 2003, the Division succeeded in developing jointly with DENSO Corporation a car air-conditioning compressor that uses carbon dioxide (CO₂), a natural refrigerant.



■ Fixed Displacement Type



10S17 Compressor (Fixed Displacement, Swash Plate Type)



SCS06 Compressor (Scroll Type)



SV07 Compressor (Vane Type)

■ Continuous Variable Displacement Type



7SBU16 Compressor (Variable Displacement, Swash Plate Type)



7SEU16 Compressor (External Signal-Controlled, Variable Displacement, Clutchless Type)

■ For Electric Vehicles



ES25 Electric Compressor (Hermetic Scroll Type)

■ Auxiliary Car Heater



Viscous-Type Power Heater (Vehicle Cabin Supplementary Heater)

Vehicle Division

Building Safe, Environment-Friendly Cars

Toyota Industries currently assembles the Vitz (Yaris in Europe), RAV4 and Corolla Sedan under consignment from TMC. The fuel-efficient, environmentally friendly Vitz is TMC's

strategic small car in global markets. The RAV4 sport utility vehicle is exported to North America and Europe, while the Corolla Sedan is exported to North America.







Vitz (Yaris in Europe)

RAV4

Corolla Sedan

Engine Division

From Small Cars to Large Industrial Vehicles

Toyota Industries manufactures diesel and gasoline engines ranging in capacity from 1500 to 5200cc. All the car engines we manufacture are sold to TMC and then fitted in TOYOTA cars. Developed together with TMC, our diesel engines for automobiles feature high power and light weight, as well as

low noise and vibration. Superior in output and environmental impact, our industrial vehicle engines are fitted in forklift trucks and other industrial vehicles manufactured by TMHC.

■ Diesel Engines



1CD Diesel Engine (Displacement: 2.0 Liters, Used in the RAV4 for Europe and Corolla)



1HD-FTE Diesel Engine (Displacement: 4.2 Liters, Used in the Land Cruiser)

■ Gasoline Engines



2UZ Gasoline Engine (Displacement: 4.7 Liters, Used in the Lexus LX470)



1FZ-FE Gasoline Engine (Displacement: 4.5 Liters, Used in the Land Cruiser)

Electronics

Corporate Technical Center

The Corporate Technical Center carries out product planning, design and manufacture of products related mainly to power supply and communications. The Center manufactures DC-AC inverters that convert 12V DC car battery current to 100V AC (standard Japanese household current) and DC-DC converters fitted in TOYOTA Prius hybrid cars. It also develops and manufactures SS wireless modems.

Serving as Toyota Industries' R&D base, the Center is engaged in basic R&D in the materials field as well as research in the latest technologies, such as electronics.

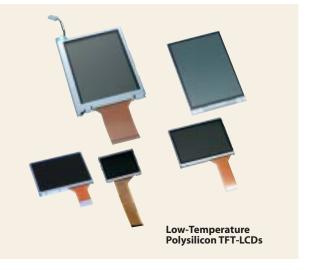


Electronics

ST Liquid Crystal Display Corp.

ST Liquid Crystal Display Corp. ("ST-LCD"), established in October 1997 as a 50-50 joint venture with Sony Corporation ("Sony"), manufactures low-temperature polysilicon TFT-LCD panels. Taking advantage of Sony's superb LCD technology and Toyota Industries' expertise in quality control and manufacturing technology, ST-LCD produces high-quality, high-performance LCD panels on the unique Toyota Production System.

ST-LCD's panels are expected to create huge demand for a wide range of display device applications, including mobile phones, digital video and still cameras and personal digital assistants (PDAs).



Electronics

TIBC Corporation

TIBC Corporation ("TIBC") was formed in 1998 as a joint venture between Toyota Industries and Ibiden Co., Ltd. TIBC makes ball grid array (BGA) plastic package substrates, an indispensable component of PCs, mobile phones and video game systems. TIBC also manufactures flexible printed circuit (FPC) substrates for smart cards.



Ball Grid Array (BGA) Plastic Package Substrates



Flexible Printed Circuit (FPC)

Textile Machinery Division

Innovation and Creativity in the Global Textile Industry

Toyota Industries traces its roots back to Sakichi Toyoda's invention of the automatic loom over 75 years ago. Since then, we have developed and manufactured spinning, weaving and other textile machinery, which we have marketed to customers around the world. To stay ahead of ever-advancing market needs, the Textile Machinery Division is enhancing its products with the latest communications,

mechatronics and other technologies. Toyota Industries is a global leader in the manufacture of air-jet looms, ring spinning frames and roving frames.

The Textile Machinery Division continues its commitment to customer satisfaction with a complete range of high-quality products that meet the needs of today's global textile industry.

■ Weaving Machinery



JAT710 Air-Jet Loom



LW600 Series Water-Jet Loom

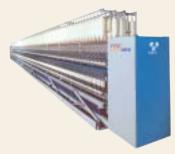


Mackee Eagle Sizing Machine for Spun Yarn



Filamaster Express 610 Sizing Machine for Filament Yarn

■ Spinning Machinery



RX240NEW Ring Spinning Frame



FL100 Roving Frame

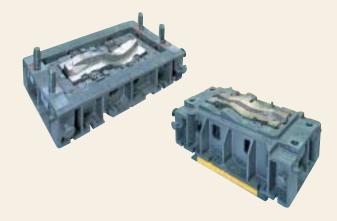


DX8 Drawing Frame

Sub-Division

Machinery & Tools Sub-Division

Superior Press Die Manufacturing Technology



The Machinery & Tools Sub-Division designs and manufactures high-precision, high-quality automobile press dies for TMC. We will continue to contribute to TMC's business with press dies that offer excellent quality, cost efficiency and fast delivery times.

The Machinery & Tools Sub-Division manufactures various types of automobile press dies and distributes them to Toyota Industries' Vehicle Division and TMC.

Sub-Division

Mechatronics Engineering Sub-Division

Designing and Producing Manufacturing Equipment for Toyota Industries

Toyota Industries has promoted in-house manufacture of the all-important machining and assembly equipment. The Mechatronics Engineering Sub-Division designs and produces superior production equipment for Toyota Industries' divisions and Group companies, giving all of our businesses a competitive edge.





Equipment developed and manufactured by the Mechatronics Engineering Sub-Division is utilized by Toyota Industries' compressor business and ST-LCD, enhancing the productivity and competitiveness of these operations.