

Toyota Towing Tractors

The BT Movit and Toyota Tracto Ranges



BT Movit and Toyota Tracto

the complete range of towing tractors from Toyota Material Handling

BT Movit W-series Pedestrian towing tractors



Easy-to-use tow trucks with quick carrier connection, ideal for roll cages
0.8 – 1.5 tonne load capacities
Travel speed up to 4.5 km/h

Pages 4-5

BT Movit N-series Light-duty stand-in towing tractors



Narrow chassis trucks for light-duty towing or order picking
1.0 – 1.5 tonne load capacities
Travel speed up to 12 km/h

Pages 6-7

BT Movit S-series Heavy-duty stand-in towing tractors



High-performance tow trucks with easy on/off, for heavy-duty towing and order picking applications
3.0 – 5.0 tonne load capacities
Travel speed up to 12 km/h

Pages 8-9

Toyota Tracto S-series Heavy-duty stand-in towing tractors with pneumatic tyres



Compact stand-in towing tractors for horizontal transport, especially short distance with frequent on/off
2.0 – 4.0 tonne load capacities
Travel speed up to 13 km/h

Pages 10-11

Toyota Tracto R-series Heavy-duty rider-seated towing tractors with pneumatic tyres



High-performance tow tractors for long travel distances and heavy-duty towing
2.0 – 6.0 tonne load capacities
Travel speed up to 18 km/h

Pages 12-13

Toyota Tracto R-series Heavy-duty rider-seated towing tractors with pneumatic tyres



Electric and engine-powered trucks for long travel distances and heavy loads
20.0 – 49.0 tonne load capacities
Travel speed up to 30 km/h

Pages 12-13

Typical applications

The BT Movit W-series is a flexible tool that can be used to move a variety of loads quickly and efficiently. Different connection hooks are available to suit varying applications.



These pedestrian-operated units can be used as part of an integrated handling process, to take care of heavy load movement.



The BT Movit model TWE080N is a low-cost compact version which is shorter, and features a differential gearbox giving a tight turning circle. This model is also lightweight making it easy to handle.

The optional remote control for shopping trolley transport allows the operator to guide a train of nested trolleys from the front while the BT Movit pushes from the back.



	Safety	Durability	Productivity	Driveability	BT Movit TWE100	BT Movit TWE080N	BT Movit TWE150
Truck features							
Automatic parking brake					●	●	●
Choice of chassis widths					●	●	●
Choice of connections and hooks					●	●	●
Electronic speed control		●			●	●	●
High performance models					●	●	●
Controls and instruments							
Automatic deceleration		●			●	●	●
Folding steering arm					●	●	●
Emergency cut-off		●			●	●	●
Battery status display					●	●	●
Hour meter					○	○	○
Remote control for shopping trolley transport					○	○	○
Operator features							
Driver-adapted programmable performance		●			●	●	●
Maintenance features							
Easy access for maintenance			●		●	●	●
Battery management features							
Battery change facility					○	○	○
Battery status indicator		●			●	●	●

BT Movit W-series

Pedestrian towing tractors

The BT Movit W-series is a pedestrian-operated towing solution that takes the strain out of moving loads, with a choice of handling capacities from 0.8 t to 1.5 t.

The right connection

A variety of hooks allows connection to all common manual load carriers.

A flexible solution

- TWE080N is an extra compact variant for retail applications
- Remote control option for transport of nested shopping trolleys
- Gel batteries standard for TWE080N and optional for TWE100, TWE150



TWE100/150



TWE080N



- Control handle is comfortable and easy to use with a clear and concise battery status display
- Maintenance-free gel batteries are fitted standard on the TWE080N
- Load connection is easy, with a variety of attachments available

Load capacity: 0.8, 1.0, 1.5 t
Maximum travel speed: 4.5 km/h

Typical applications

BT Movit N-series trucks are particularly suited to order picking and towing in smaller stores or areas with limited space. The wide choice of load carriers includes step-up versions, allowing easy and secure picking from higher levels. Other carriers such as shelf carriers or specially designed units with compartments can allow sortation during the picking process – ideal for on-line shipping processes.



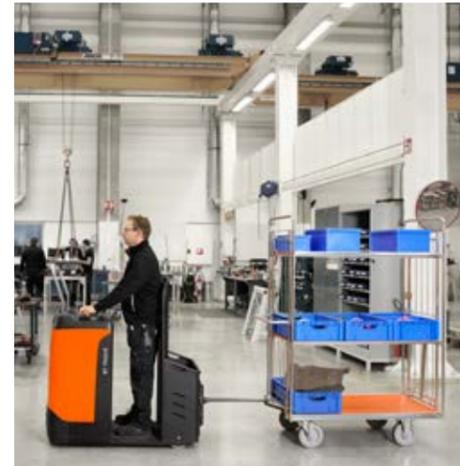
The compact overall size and lightweight design of these trucks allows work in confined areas, whilst towing capacities up to 1.5t mean multiple loads can be transported. The use of secure-path carriers can ensure that all carriers follow the same path for safe and accurate load movement. They are also particularly suited to non-industrial environments such as hospitals, offices and retail space.



TOWING TSE100/150



ORDER PICKING TSE100W



Typical load carriers that can operate with the BT Movit N-series include:



PARCEL carrier
Designed for carriage of items of multiple sizes and shapes, with easy to open gates



PLATFORM carrier
Fast, easy and flexible transportation of stable goods



SHELF carrier
Allowing sortation of items during the transportation process



STEP carrier
Step-up facility allowing order picking from higher levels

	Safety	Durability	Productivity	Driveability	BT Movit TSE100	BT Movit TSE150	BT Movit TSE100W
Truck features							
Automatic parking brake	●	●	●	●	●	●	●
Choice of chassis widths	●	●	●	●	●	●	●
Choice of connections and hooks	●	●	●	●	●	●	●
Choice of load carriers	●	●	●	●	●	●	●
Electronic braking system	●	●	●	●	●	●	●
Electronic speed control	●	●	●	●	●	●	●
High performance models	●	●	●	●	●	●	●
Integrated front bumper	●	●	●	●	●	●	●
Controls and instruments							
180°+ steering	●	●	●	●	●	●	●
Access Control (PIN codes)	●	●	●	●	●	●	●
Automatic deceleration	●	●	●	●	●	●	●
Emergency cut-off	●	●	●	●	●	●	●
Hour meter	●	●	●	●	●	●	●
Information display	●	●	●	●	●	●	●
On-board data terminal mount	●	●	●	●	●	●	●
Travel AC control	●	●	●	●	●	●	●
Operator features							
Driver detection system	●	●	●	●	●	●	●
Driver-adapted programmable performance	●	●	●	●	●	●	●
Choice of standing or sitting	●	●	●	●	●	●	●
Low step-in	●	●	●	●	●	●	●
Storage compartment	●	●	●	●	●	●	●
Vibration-damped platform	●	●	●	●	●	●	●
Writing table	●	●	●	●	●	●	●
Maintenance features							
Easy access for maintenance	●	●	●	●	●	●	●
Fault diagnosis facility	●	●	●	●	●	●	●
Battery management features							
Battery change facility	●	●	●	●	●	●	●
Battery discharge prevention system	●	●	●	●	●	●	●
Battery status indicator	●	●	●	●	●	●	●

BT Movit N-series

Light-duty stand-in towing and order picking trucks

BT Movit N-series are lightweight and very compact, suitable for use in a great range of environments. They feature a very low step-in and easy trailer connection. There are two types machine in the BT Movit N-series range. TSE100/150 models work with traditional hook-on trailers, whereas the TSE100W model is designed to dock with a variety of trailers, creating a stable integrated unit ideal for order picking in working in confined areas.

Integrated, secure-path and free-path load carriers

The N-series is designed to work with three types of load carrier chassis.

- Integrated load carriers dock directly into the truck (TWE100W model), creating a very small and manoeuvrable unit, which can accommodate additional facilities such as steps for higher-level picking. Forward and reverse movements are safe and easy, as is the docking process.
- Secure-path load carriers are fitted with four-wheel steering systems, which means that tow-trains always follow exactly the same path for safe and accurate driving.
- Free-path load carriers feature two-wheel steering, which means that they have a short turning radius for tight U-turns and can be easily moved and steered manually.

Bespoke load carriers

Toyota offers a wide choice of standard load carrier configurations, but is also able to work with customer-developed solutions – or special load carriers can be designed and built to match specific requirements.

Special variants include a care equipped truck designed for mobility support in hospitals that helps staff to move patients easily.

Quick battery change

The BT Movit N-series' battery can be changed in under a minute thanks to the convenient battery drawer.



- Fast and easy battery change
- 'Spinner wheel' steering and PIN-code access
- LED front light
- Easy carrier docking

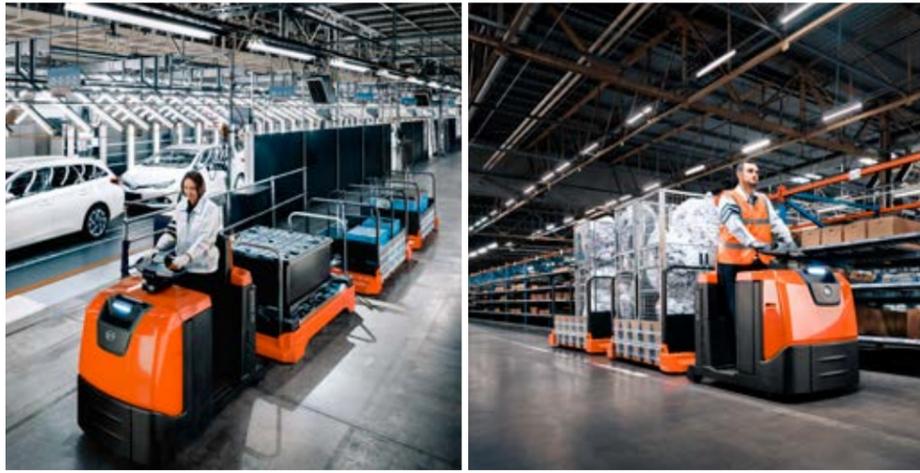
Load capacity: 1.0, 1.5 t
Maximum travel speed: 12 km/h



Typical applications

BT Movit S-series tow trucks offer an effective solution for advanced order picking, transporting multiple loads within standard aisles. Using 4-wheel steering taxi carriers to transport roll cages, secure-path transportation is assured, without the need for very wide aisles to manoeuvre traditional long-forked trucks. Towing capacities up to 5 tonnes also mean that multiple loads can be assembled, for maximum order picking efficiency. An optional remote control system can allow the driver to advance the truck whilst picking to further accelerate the order picking process.

Toyota is established as the leading company for lean production, pioneered with the Toyota Production System. A key part of TPS is just-in-time delivery of components to ensure that assembly and stock management is optimised. Using specially-designed trailers to suit the application, BT Movit tow trucks are perfect for high speed transportation of materials, with travel speeds up to 12 km/h.



Typical load carriers that can operate with the BT Movit S-series include:



TAXI carrier
Transporting subsidiary load offering train solutions for full-pallets and half-pallets



PLATFORM TAXI carrier
Designed for easy and flexible transport of loads of different sizes like containers or roll cages



HEAVY-DUTY TAXI carrier
Allowing transportation of full-pallets and half-pallets up to 1200 kg

	Safety	Durability	Productivity	Driveability	BT Movit TSE300	BT Movit TSE500
Truck features						
Automatic parking brake	●				●	●
BT Powerdrive		●			●	●
Choice of connections and hooks					●	●
Choice of load carriers					○	○
Electronic braking system	●				●	●
Electronic regenerative brakes (motor)	●				●	●
Electronic speed control					●	●
High performance models					●	●
Protective bumpers	●				○	○
Controls and instruments						
200°+ steering					●	●
Access Control (PIN codes)					●	●
Adjustable E-man control console					○	○
Automatic deceleration					●	●
E-bar					○	○
Emergency cut-off	●				●	●
Hour meter					●	●
Information display					●	●
On-board data terminal mount					○	○
Power/Electronic steering	●				●	●
Travel AC control					●	●
Smart Access (electronic card)					○	○
Operator features						
Driver detection system	●				●	●
Driver-adapted programmable performance					●	●
Folding seat					○	○
Low step-in	●				●	●
Shrinkwrap holder					●	●
Storage compartments					●	●
Writing table					○	○
Maintenance features						
Easy access for maintenance					●	●
Fault diagnosis facility					●	●
Historic fault log					●	●
Battery management features						
Battery change facility					○	○
Battery discharge prevention system					●	●
Battery status indicator					●	●

Platform lift version for 2nd level picking with reduced towing capacity available as special option

BT Movit S-series Heavy-duty stand-in towing tractors

The BT Movit S-series is a high-performance tow truck, offering capacities up to 5 tonnes and travel speeds up to 12 km/h. Towing solutions offer significant benefits for advanced order picking, long-distance load transportation, or specialised transports within lean manufacturing. Also available with lithium ion battery system for long working shifts with opportunity charging.

Secure-path and free-path load carriers

The S-series is designed to work with different types of load carrier chassis.

- Secure-path load carriers are fitted with four-wheel steering systems, which means that tow-trains always follow exactly the same path for safe and accurate driving.
- Free-path load carriers feature two-wheel steering, which means that they have a short turning radius for tight U-turns and can be easily moved and steered manually.

Toyota offers a wide choice of standard load carrier configurations, but is also able to work with customer-developed solutions - or special load carriers can be designed and built to match specific requirements.

Smooth operation for the driver

The E-man control system allows smooth operation with touch sensitive activation of the drive function and effortless electronic steering. The steering arm can be moved left and right to allow pedestrian control, walking alongside. BT Movit S-series trucks also have the option of Frequency-Adapted Suspension, based upon a special system that combats vibration at various frequencies - geared to meet legislative requirements.

Optional remote control

For accelerated order picking, the BT Movit S-series can be upgraded with remote control, allowing the operator to advance the truck forwards whilst picking and placing goods. The remote control system incorporates sensors to eliminate the risk of collisions, and to navigate around obstructions.

Optimised truck performance

The optimised truck performance system on the BT Movit S-series automatically adapts speed when cornering to allow fast yet safe driving in all conditions.

TPS-based reliability

Like all Toyota trucks, BT Movit tow trucks are built according to the Toyota Production System, assuring the highest levels of quality, durability and reliability.



- Low step-in and optional vibration-damped floor
- E-man control system can be moved to either side of the truck to facilitate 'walk-with' operation
- E-bar incorporates a power supply and allows easy attachment of essential equipment such as terminals and barcode scanners
- Superelastic rear wheels (special option)

Load capacity: 3.0, 5.0 t
Maximum travel speed: 12 km/h

Typical applications

Toyota Tracto S-series electric towing tractors feature a stand-in design – ideal for applications that demand frequent mounting and dismounting, such as order picking.



Pneumatic tyres mean smooth driving on uneven surfaces, to aid operator comfort. The compact design of Toyota Tracto S-series models allows them to work efficiently in confined spaces, and the narrow chassis width is ideally suited to driving in narrow traffic lanes where multiple load movements are taking place.

Remote control to allow movement of the tractor and load during order picking and even driverless operation over longer distances is available with the 4CBTYR model.

Typical load carriers that can operate with the Toyota Tracto S-series include:



HEAVY-DUTY TAXI carrier
Allowing transportation of full-pallets and half-pallets up to 1200 kg



Compact 4CBTY models are available with capacities of 2 and 4 tonnes – ideal for work in confined areas with a width of just 800mm



Heavy-duty CBTY models offer capacities of 4 and 6 tonnes and are particularly suited to applications with gradients

	Safety	Durability	Productivity	Driveability	Toyota Tracto CBTY4	Toyota Tracto 4CBTY2/M/4	Toyota Tracto 4CBTY2R/k/4R
Truck features							
Automatic travel					●	●	●
Electronic regenerative brakes (motor)					●	●	●
Headlights	●						
High performance models					●	●	●
Obstacle sensor					●	●	●
Pin-type single-stage drawbar					●	●	●
Pneumatic tyres					●	●	●
Rear combination lights					○	○	○
Safety bumper						●	●
Controls and instruments							
Automatic deceleration					●	●	●
Dual-action parking brake					●	●	●
Emergency cut-off					●	●	●
Floor parking pedal					●	●	●
Hour meter					●	●	●
Maximum-speed limit switch					●	●	●
Remote control facility						●	●
Travel AC control						●	●
Operator features							
Adjustable operator backrest					●	●	●
Driver detection system (Toyota OPS)					●	●	●
Low step-in					●	●	●
Storage compartments							
Maintenance features							
Easy access for maintenance					●	●	●
Fault diagnosis facility					●	●	●
Battery management features							
Battery change facility					○	○	○
Battery discharge prevention system					●	●	●
Battery status indicator					●	●	●

Toyota Tracto S-series Heavy-duty stand-in towing tractors with pneumatic tyres

The Toyota Tracto S-series are compact stand-in electric trucks for indoor and outdoor use. With capacities up to 4 tonnes they are suitable for intensive applications, meaning constant use over typical shifts.

Easy on/off

Toyota Tracto S-series models feature a low step-in height, making them ideal for applications in which the operator must frequently mount and dismount.

Battery roll-out

The four-tonne CBTY4 model has battery rollerbed as standard, for safe and quick changes.

Easy trailer docking

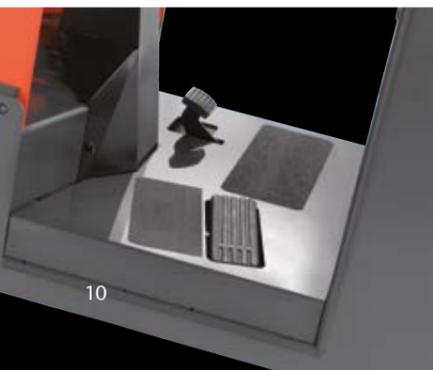
S-series models are all designed to dock / undock with Toyota load carriers quickly and easily.

Remote control or automated travel options

The Toyota Tracto R-series can be equipped for remote control (4CBTYR), allowing the operator to advance the tractor unit whilst concentrating on the picking process – or for point-to-point automated travel over longer distances. Guidance is achieved through wired induction loop or magnetic tape on the floor, and speed reduction markers can be used to ensure safety in operation.

TPS-based reliability

Like all Toyota trucks, Toyota Tracto towing tractors are built according to the Toyota Production System, assuring the highest levels of quality, durability and reliability.



- S-series' low step-in height makes getting on and off easy. The Operator Presence System (left-hand pedal) ensures that the truck cannot be driven unless the operator is standing in the correct position
- The backrest is height-adjustable to accommodate different operators in comfort
- The control layout on the 4CBTYR is straightforward and easy to use
- Battery roller-bed is standard on CBTY4 model

Load capacity: 2.0, 4.0 t
Maximum travel speed: 13 km/h

Typical applications

Toyota Tracto R-series towing tractors are ideal for heavy-duty applications involving longer travel distances and towing capacities up to 49 tonnes. The seat and controls offer comfort to the operator and the trucks themselves are designed for intensive work such as supplying production lines and cross-docking. The Toyota Tracto R-series includes both electric and engine-powered models and are suitable for indoor and outdoor applications.

The 4CBT and CBT models in the Toyota Tracto R-series and the 2TE model offer capacities of up to 25 tonnes, therefore able to handle significant loads but with a compact design and simple operation. The 4CBTR model is adapted to allow remote control so the tractor can be moved forward during order picking, or full automation over a wire- or tape-guided route.

With the ability to tow trains totalling up to 49 tonnes Toyota Tracto IC-engine tractors offer exceptional pulling power. The choice of diesel or LPG engines makes them suited to both indoor and outdoor use.

See page 10 for typical load carriers that can operate with the Toyota Tracto R-series.



4CBT



CBT



2TD/G



Compact 4CBT models have a narrow 800 mm chassis and are available in capacities of 2, 3 and 4 tonnes



For high performance and frequent work on gradients, CBT models offer 4 and 6 tonne capacities and travel speeds up to 18 km/h



Heavy-duty 2TG/D models are equipped with either diesel or LPG engines, and offer towing capacities up to 49 tonnes, with travel speeds up to 30 km/h



2TE electric models provide towing capacities up to 25 tonnes, and travel speeds up to 28 km/h

	Safety	Durability	Productivity	Driveability	Toyota Tracto CBT4/6	Toyota Tracto 4CBT2/3/k4	Toyota Tracto 4CBT2R/3R/k4R	Toyota Tracto 2TG20/25, 2TD20/25	Toyota Tracto 2TE15/18
Truck features									
Automatic travel									
Electronic regenerative brakes (motor)									
Headlights									
High performance models									
Obstacle sensor									
Pin-type double-stage drawbar									
Pin-type single-stage drawbar									
Pneumatic tyres									
Protective bumpers									
Rear combination lights									
Safety bumper									
Steel cabin									
Controls and instruments									
Automatic deceleration									
Dual-action parking brake									
Emergency cut-off									
Hour meter									
Information display									
Maximum-speed limit switch									
Power/Electronic steering									
Remote control facility									
Tilt steering column									
Travel AC control									
Operator features									
Adjustable operator backrest									
Driver detection system									
Storage compartments									
Maintenance features									
7" cyclone air cleaner									
Easy access for maintenance									
Fault diagnosis facility									
Battery management features									
Battery change facility									
Battery discharge prevention system									
Battery status indicator									

* Toyota OPS on Toyota Tracto models (on 2TG20.25, 2TD20.25, OPS only present on automatic transmission models)

Toyota Tracto R-series

Heavy-duty rider-seated towing tractors with pneumatic tyres

The Toyota Tracto R-series is a comprehensive range of electric and engine-powered models for heavy-duty applications demanding longer travel distances and greater towing capacities.

Designed for driver comfort

This ergonomic suspension seat is adjustable to suit all sizes and shapes of driver, offering a high level of comfort for long distance driving. It provides excellent lumbar support as well as having side wings to support the operator's back when reversing.

Toyota industrial engine

Designed to transport loads from distant points outside a factory or baggage and cargo movement at airports, 2TD/2TG models' high torque output allows the trucks to easily cope with steep gradients. The 2TD is diesel powered. The 2TG version is a gasoline powered* alternative matching the performance of the diesel-powered machine.

*LPG version available as special modification

Weather protection

Option including rear-view mirrors, combination lights, rear bumpers, and a fully enclosed steel cab with windscreen wiper, which allows 2TD/2TG to work in all weathers.

Easy trailer docking

R-series models are also designed to dock / undock with Toyota load carriers quickly and easily.

Remote control or automated travel options

The Toyota Tracto R-series can be equipped for remote control (4CBTR), allowing the operator to advance the tractor unit whilst concentrating on the picking process – or for point-to-point automated travel over longer distances. Guidance is achieved through wired induction loop or magnetic tape on the floor, and speed reduction markers can be used to ensure safety in operation.

TPS-based reliability

Like all Toyota trucks, Toyota Tracto towing tractors are built according to the Toyota Production System, assuring the highest levels of quality, durability and reliability.



- Toyota ORS seat
- 4CBTY offers easy battery access
- 2TD20 with all-weather steel cab
- All Toyota Tracto R-series models feature simple, car-like controls

Load capacity: 2, 3, 4, 6, 20, 25, 26¹, 33² t
Maximum travel speed: 30 km/h

1) Load capacity with one trailer. Load capacity with a train of two or more trailers: 39 t.
2) Load capacity with one trailer. Load capacity with a train of two or more trailers: 49 t.

How we plan your operation

Toyota Material Handling has a clear approach to create effective and profitable relationships:

- Your local sales contact aims to be your trusted business advisor for all handling and logistics operations, to support your activities at both the planning and operational phases
- Our challenge is to analyse and understand your requirements and find efficient handling solutions – in short to fulfil our commitment to ‘Kaizen’ – which means continuous improvement
- A complete range of Toyota products – counterbalance trucks, warehouse trucks, tow trucks and automated solutions

Financial options

A choice of financial options to suit your exact needs, including finance lease and fully-inclusive long term rental programmes

Quality approved used trucks are also available giving Toyota build-quality at a very competitive cost level

Forward planning with short-term rental options to handle peak periods of activity

How we build quality trucks

The Toyota Production System has a world-wide reputation for manufacturing quality products:

- Having identified the right equipment for your operations, you have the confidence that it will be manufactured to the highest quality standards – that means reliability
- TPS is built around a process of continuous improvement (Kaizen) which is achieved by following a clear set of values
- All trucks are produced to ISO 14001 quality standards, ensuring minimum environmental impact
- Furthermore, one of the driving values within TPS is the elimination of waste at every stage of the process
- Over 90% of trucks sold by Toyota Material Handling in Europe are built within our European factories in Sweden, France and Italy

Toyota Production System – the strong foundation for quality in manufacturing

Taking care of you and your trucks

The Toyota Service Concept has been developed on TPS principle and is unique in the industry:

- Service means total lifetime support – maintenance, repairs, back-up with extra trucks, driver training and management information
- Real-time information is one of the core values that makes Toyota’s service concept unique. It means everyone in the process has instant on-line access to updated, integrated information – technical support, truck history, parts, truck availability and for data for effective time and route planning
- TSC also means exact-fit in terms of parts and people, with structured training and accreditation processes
- Smart truck telemetry with GPRS/3G communication is also unique to Toyota, and available on almost every truck we produce. This allows better safety standards including driver management and, with Toyota I_Site, complete fleet control for improved safety, efficiency and cost reduction

Toyota Service Concept – for unique, forward-thinking lifetime support

RELIABILITY
CONFIDENCE
AVAILABILITY
PRODUCTIVITY
QUALITY
SAFETY

These are the expectations of our customers, alongside cost efficiency, sustainability and respect for the environment.

We check these expectations by regularly talking to truck users through surveys, sales discussions and over 3.5 million service visits every year.

We work with customers from one-off users up to the largest fleet operations.

Because our network extends across Europe we are always local.

Understanding customer needs is at the heart of our operations.

We call it CUSTOMER FIRST.

This page describes the unique processes that we follow, from working with you to plan your handling requirements, through building high quality reliable products, then delivering the best possible lifetime support.



For more information about:

- Toyota Production System (TPS)
- Toyota Service Concept (TSC)
- Finance and rental plans
- Service and parts programmes
- Smart truck technology
- Toyota I_Site fleet management
- Environment & sustainability policies

please ask your Toyota representative, or visit www.toyota-forklifts.eu

Toyota Material Handling in Europe

Total coverage

The Toyota Material Handling network extends to over 30 countries in Europe with more than 4500 mobile technicians.

Always local – with global support

Wherever you are located in Europe, we are always local, due to our extensive coverage, but with the stability and back-up of a worldwide organisation.

Made in Europe

Over 90% of trucks we sell are built in our own European factories, in Sweden, France and Italy – all to TPS quality standards. We employ over 3000 production staff in Europe and work with over 300 European suppliers.

Approximately 15% of our European production is exported to other parts of the world.

Pictures used are for illustration purposes only. Availability and specifications are determined regionally, and are subject to change without notice. Please consult your Toyota Material Handling representative for details.