

BT Orion

2.0 – 2.4 tons
Electric Powered Pallet Trucks





BT Orion

Productivity – Safety – Durability

BT Orion powered pallet trucks from Toyota Material Handling Europe combine high load capacities with operator platforms and class-leading compactness, for heavy-duty pallet handling in intensive applications.

This compactness, combined with high top speeds make BT Orion trucks exceptionally manoeuvrable in busy applications. For maximum safety, fixed sideguards or a fixed backrest/guard can be specified on all models. The BT Powerdrive integrated drive and control system ensures a smooth and intuitive response to driver inputs as well as excellent energy efficiency.

BT's Powertrak system ensures that drive-wheel grip is always optimised according to load weight, for sure-footed performance, and the standard flip-down driver platforms make light work of long distance runs. BT's unique five-wheel chassis design ensures stability at all times, making BT Orion the best choice for *productivity, safety and durability*.

BT Orion – made to work

BT Powerdrive, which is built into BT Orion trucks from the ground up, benefits productivity in two ways. Firstly, its essential simplicity means truck availability is maximised. Secondly, the trucks are easy to operate safely and smoothly.

High performance – small size

The 2-ton capacity LPE200 has a maximum speed of 8.5 km/h with the optional folding sideguards, or 6 km/h without. The 2.4-ton capacity LPE240 can travel at a full 12 km/h. Performance parameters are fully programmable to suit each operator and application (see page 7).

Lift/lower performance is equally impressive, meaning less time spent stationary and more time moving loads, and all of this in trucks with a small footprint, maximising manoeuvrability. The flip-down platform adds very little to the trucks' dimensions when upright, enabling BT Orion to be steered through the tightest gaps.

Smooth and easy, but powerful

Simple CAN-bus wiring connects a central processor, which monitors and controls all performance aspects of the truck, to a powerful and efficient motor.

Smooth, powerful performance is assured in all operating conditions, due to the combination of the motor and the switchless control system. Acceleration and maximum travel speed is virtually unaffected by load weight. Low energy consumption and regenerative braking mean that BT Orion can achieve more work cycles per battery charge than conventional powered pallet trucks.

Adapted grip

A concept invented by BT, Orion's Powertrak chassis automatically adjusts the drive wheel pressure to suit the load, thereby increasing traction and virtually eliminating wheelspin.

Easily adaptable

All models are available with the E-bar mounting rail for ancillary equipment such as writing tables and shrinkwrap holders. It can also incorporate a power supply for items such as PCs, radio-data terminals and barcode scanners.



The tiller arm's control handle incorporates BT Powerdrive technology, for easy, intuitive control



The E-bar is a convenient mounting rail for ancillary equipment





Safety as standard

BT Orion's ease-of-use is a great benefit to overall safety but the trucks also come with a range of specific safety features to ensure that operator, load and site remain safe.

A choice of guards

The LPE200 and LPE240 models are available with full fixed sideguards. Both can also be specified with a rear backrest. Folding sideguards on both models (optional on the LPE200) offer protection to the operator without compromising the advantages of the flip-down platform to manoeuvrability, meaning that the operator can dismount and control the truck as a pedestrian in the tightest corners.

A choice of platforms

Various types of driver platform are available on BT Orion trucks, to suit different applications. For example, the platform can be of 'flip-down' design if the truck is mostly pedestrian-operated. A 'stay-down' platform suits ride-on operation better. A steel mesh platform is available for safe non-slip operation in coldstores.

Always in control

Much of the BT Powerdrive technology is housed in the ergonomic handle, which offers an intuitive interface between operator and machine. Designed to be equally accessible to the right and left hand, its butterfly controls provide forward/rearward acceleration. Other essentials such as lift/lower, and horn are all within fingertip reach.

Adaptable performance

Truck performance is fully programmable to suit the application, with easy access to various parameters via the digital display and

controls on the handle. Maximum speed (with and without sideguards), acceleration rate, and automatic speed reduction facility can be set to suit the conditions of each application or operator's skill level. A time at which the truck should shut-down can also be programmed. The handle also allows access to the trucks' on-board fault diagnosis and logging system, via its digital display.

BT's unique Click-2-Creep option allows the operator to reduce the truck's speed for careful fine-positioning. Creep speed is activated by simply clicking the speed control switch twice.

Access control

BT Powerdrive offers access control by PIN-code as standard or, as an option, "Smart access", where the driver uses a personal electronic key or card to access the truck. For both systems up to 10 driver profiles can be stored for automatic activation upon log-in.

Protection for the operator

A large emergency button is located at the tip of the handle. This ensures that the truck's direction will be reversed immediately if the handle encounters an obstacle, preventing the truck from crushing the operator.

To further ensure operator safety, all models feature skirting that offers full protection to the feet.



Folding sideguards allow the LPE200 to be used at its maximum speed of 8.5 km/h



BT Orion's low skirt protects the operator's feet without impeding access to ramps and gradients

Toyota durability = maximum uptime

BT Orion is manufactured using the highly regarded Toyota Production System (TPS). To ensure high levels of quality and reliability, TPS applies continuous improvement (*kaizen*) throughout the entire production process, from product development through to production, delivery and after-sales service.

Fewer parts

The total number of components in the BT Powerdrive system has been significantly reduced in relation to conventional electric trucks, leading to greater reliability and efficiency. On-board fault diagnosis and easy access to internal parts maximise uptime.

High-quality construction

All BT Orion trucks are built with the highest quality components. For example, all bushings on the LPE240 are constructed from bronze, with lubrication points, for a long and reliable life.

Inox version

For applications requiring the highest standards of hygiene, or exceptionally corrosive environments, the BT Orion LPE200 is available in a stainless-steel INOX version (LPE200I).

Managing your fleet

Fleet users can readily assess the performance of their BT Orion trucks using Toyota I_Site – an information system from Toyota Material Handling Europe which provides the information that fleet users need to make the right decisions for their business, quickly and safely. Toyota I_Site experts help companies set up customised, easy-to-read reporting that helps businesses realise cost savings and enhance safety, control costs from damages, as well as optimise the use of their fleet.



BT Powerdrive reduces components to a minimum



The LPE200I uses stainless steel for long-lasting performance in corrosive environments



Materials handling for Europe

Toyota Material Handling Europe (TMHE) has a strong European presence with its Toyota and BT brands, establishing close geographic links with its customers in order to better respond to their needs. TMHE has operations in more than 30 countries, and production centres in Ancenis (France), Bologna (Italy) and Mjölby (Sweden).

Toyota Production System

The Toyota Production System (TPS) empowers team members to optimise quality by constantly improving processes and eliminating unnecessary waste of resources. TPS includes a common set of knowledge, values and procedures, entrusts employees with well-defined responsibilities in each production step, and encourages each staff member to strive for overall improvement. Today, TPS is the acknowledged reference among automotive manufacturers and related industries. Our methods enable businesses to achieve sustained gains in productivity while satisfying customer expectations for quality and reliability.

Research & Development

TMHE benefits from Toyota's vast experience in the automotive industry, especially in engine development. By taking full advantage of the group's massive R&D facilities and engineering expertise, Toyota has developed a number of world-class technologies. Intelligent use of electronic and computer controlled devices has also made a significant contribution to creating more ergonomic and user-friendly operator environments, contributing to safety in the workplace.

Empowering your business

Our services and solutions are designed to provide different levels

and types of support in response to individual customer's needs. This approach gives our customers the power to focus on their core business.

Our commitment to the environment

TMHE believes that getting the job done should never be at the expense of our environment. Our long-term commitment is to develop and deliver environmentally friendly and economically viable materials handling solutions that respect present and future energy needs. TMHE strives to reduce environmental impact throughout the product life cycle, from design, manufacturing and operation through to recycling at end-of-life. TMHE's production centres are all ISO 14001 certified. A declaration of the emissions and waste during the manufacturing process and typical life cycle is available on request.

With its emphasis on eliminating waste, TPS also helps to reduce the environmental impact of our manufacturing activities. CO₂ emissions, water consumption, waste-water generation and landfill quantities have all been reduced, while recycling levels for packaging, water and scrap have been raised. Hazardous substances and air pollutants have also been reduced. Moving towards the creation of a recycling-oriented society, TMHE seeks to continuously improve the recyclability levels of its products.



The Orion range

LPE200

- Flip-down operator platform
- Maximum capacity: 2000 kg
- Maximum battery capacity: 320 Ah



LPE240

- Heavy-duty
- Flip-down operator platform
- Maximum capacity: 2400 kg
- Maximum battery capacity: 600 Ah



Choose the features that suit your needs

Productivity	LPE200	LPE240
200°+ steering	x	x
Automatic deceleration	x	x
Battery change facility	o	o
Battery status indicator	x	x
BT Powerdrive	x	x
Built-in charger	o	
E-bar	o	o
Electronic fingertip controls	x	x
Flip-down driver platform	x	x
Heavy-duty battery compartments		o
Information display	x	x
Power/Electronic steering		o
Powertrak traction system	x	x
Programmable performance	x	x
Sideways battery change	o	o
Spring-loaded drive wheel	x	x
Writing table	o	o
Safety	LPE200	LPE240
Automatic parking brake	x	x
Access control by PIN-code	x	x
Access control by electronic key/card	o	o
Click-2-Creep	o	o
Driver detection system	x	x
Electronic speed control	x	x
Emergency collision button	x	x
Emergency cut-off	x	x
Fixed sideguards	o	o
Folding sideguards	o	x
Load support	o	o
Rear backrest/guard	o	o
Durability	LPE200	LPE240
Bogie fork wheels	o	x
Climber wheels	o	o
Easy access for maintenance	x	x
Electronic braking system	x	x
Electronic regenerative brakes (motor)	x	x
Fault diagnosis facility	x	x
Historic fault log	x	x
Hour meter (working hours)	x	x
Lubrication points	o	x
Special applications	LPE200	LPE240
Coldstore version	o	o
EEx version (ATEX)	o	o
Corrosive environment version	o	

x = standard o = option



TOYOTA

MATERIAL HANDLING

stronger together

TOYOTA MATERIAL HANDLING EUROPE, MANAGING THE TOYOTA AND BT MATERIALS HANDLING BRANDS IN EUROPE