# BT IXION

## 1.25 – 2.0 tons
Electric Powered Stackers


TOYOTA

MATERIAL HANDLING

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BT IXION

# BT Ixion

## Productivity – Safety – Durability

**BT Ixion** powered stackers from Toyota Material Handling Europe combine high lift capacities with BT's 5-point chassis, for assured heavy-duty pallet handling in intensive applications.

All BT Ixion models are available with or without driver platforms. For maximum safety, fixed sideguards can be specified on all platform models. All models feature Sensi-lift, for precise control of lift and lowering speed; the BT Powerdrive integrated drive and control system ensures an equally smooth and intuitive response to other driver inputs, as well as excellent energy efficiency.

Elevating support arm models are designed for handling on ramps and uneven surfaces and BT's Powertrak system ensures that drive-wheel grip is always optimised according to load weight, for sure-footed performance, making BT Ixion the best choice for *productivity*, *safety* and *durability*.

# BT Ixion – lifting productivity

**Built on the BT technologies of Powerdrive and Powertrak, each Ixion truck is fast, smooth, and stable in all conditions. Combined with large battery capacities and sideways battery change, BT Ixion will lift your productivity.**

**High performance, vertically and horizontally**
With a typical maximum travel speed of 8km/h (see page 10), BT Ixion trucks are fast from A to B. 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 manouevrability. The flip-down platform adds very little to the trucks' dimensions when upright, enabling BT Ixion 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 separately-excited 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 Ixion can achieve more work cycles per battery charge than conventional powered stackers.

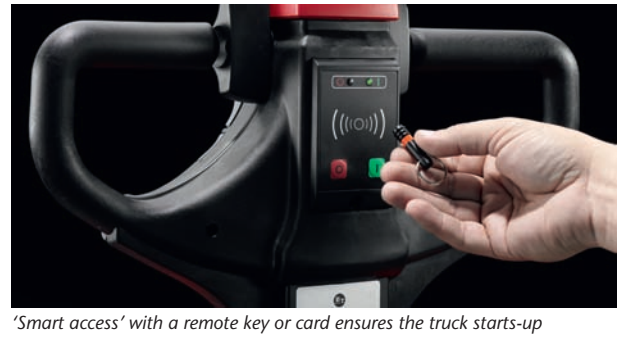
**Sensi-lift**
Lifting speed on all Ixion models can be precisely controlled using the intuitively designed rocker switch on the truck handle. This allows faster workcycles, as the operator has excellent control over the load at all times. The lifting movement stops as soon as the switch is released, for effective placement and retrieval.

**Grip, not slip**
All Ixion models are built on BT's patented Powertrak chassis. A hydraulic system ensures that the downforce applied to the drivewheel is proportional to the load on the forks, for optimum traction.

**Battery management**
A choice of compartments is available for batteries up to 440 Ah. All BT Ixion models are designed for fast sideways battery change using optional rollerbeds.

**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*



*'Smart access' with a remote key or card ensures the truck starts-up with the appropriate performance settings for each operator*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# High-level safety

**Lifting loads to heights of up to 5.4 metres, BT Ixion is the safe choice for high-performance stacking. BT's five-wheel chassis gives the best combination of control and stability, both when lifting and when manoeuvring on gradients, and is an unbeatable configuration for load capacity at height.**

### A choice of guards

For maximum safety in operation BT Ixion trucks are available with fixed sideguards on platform versions. Several models are also available with an alternate rear backrest/guard. Standard folding sideguards 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

BT Ixion models can be specified with or without rider platforms. For applications requiring long travel distances and intensive operation, such as cross-docking, a rider platform is essential for productivity. There is a range of options, including soft and hard suspension springing, 'stay-down' or 'stay-up' configuration, and the Ergo platform, for maximum operator comfort.

Ixion models without platform have a longer tiller arm optimised for pedestrian use.

### 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.

### 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 offer protection to the operator without compromising the advantages of the flip-down platform to manoeuvrability*

*BT Ixion models can be specified with or without rider platforms*

# Toyota durability = maximum uptime

**BT Ixion 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.**

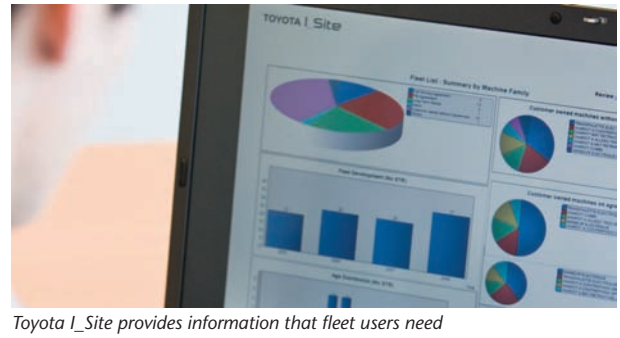
### Fewer parts

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.

### Managing your fleet

Fleet users can readily assess the performance of their BT Ixion 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 keeps parts to a minimum for maximum reliabiity*




*Toyota I_Site provides information that fleet users need*


# 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. $CO_2$ 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 Ixion range

***SPE125 / SPE125L***
- *Maximum lift capacity: 1250 kg*
- *Maximum lift height: 5.4 m*
- *Maximum battery capacity: 440 Ah*
- *Maximum speed: 8 km/h*
- *'L' model has elevating support arms for clearance on gradients and the carrying of two loads simultaneously*

***SPE135S***

*High-strength straddle support arms, and adjustable width over forks, for mixed or bottom-boarded pallet handling.*
- *Maximum lift capacity: 1300 kg*
- *Maximum lift height: 5.4 m*
- *Maximum battery capacity: 440 Ah*
- *Maximum speed: 8 km/h*

***SPE160 / SPE160L***
- *Maximum lift capacity: 1600 kg*
- *Maximum lift height: 5.4 m*
- *Maximum battery capacity: 440 Ah*
- *Maximum speed: 8 km/h*
- *'L' model has elevating support arms for clearance on gradients and the carrying of two loads simultaneously*
- *Model pictured is the 1.15 m wide version that allows for increased residual capacity*

***SPE200 / SPE200L***
- *Maximum lift capacity: 2000 kg*
- *Maximum lift height: 3.95 m*
- *Maximum battery capacity: 440 Ah*
- *Maximum speed: 6 km/h*
- *'L' model has elevating support arms for clearance on gradients and the carrying of two loads simultaneously*

***SPE200D***

*Compact design for horizontal pallet transport, double-stacking and handling on-board vehicles.*
- *Maximum lift capacity: 2000 kg (support arm lift only, otherwise 1000 kg on each set of forks.)*
- *Maximum lift height: 2.5 m*
- *Maximum battery capacity: 440 Ah*
- *Maximum speed: 10 km/h*

***RWE120***

*A reach truck with retractable mast in the compact form of a pedestrian-operated stacker.*
- *Maximum lift capacity: 1200 kg*
- *Maximum lift height: 4.8 m*
- *Maximum battery capacity: 300 Ah*
- *Maximum speed: 6 km/h*

# Choose the features that suit your needs

| **Productivity** | SPE125 | SPE125L | SPE135S | SPE160 | SPE160L | SPE200 | SPE200L | SPE200D | RWE120 |
|---|---|---|---|---|---|---|---|---|---|
| 180°+ steering | x | x | x | x | x | x | x | x | x |
| Adjustable width over forks | | | x | | | | | | |
| Automatic deceleration | x | x | x | x | x | x | x | x | x |
| Battery change facility | o | o | o | o | o | o | o | o | |
| Battery status indicator | x | x | x | x | x | x | x | x | o |
| BT Powerdrive | x | x | x | x | x | x | x | x | |
| Choice of chassis widths | o | o | | o | o | o | o | | |
| Double pallet handling | | x | | | x | | x | x | |
| E-bar | o | o | o | o | o | o | o | o | |
| Electronic fingertip controls | x | x | x | x | x | x | x | x | x |
| Elevating support arms | | x | | | x | | x | x | |
| Flip-down driver platform | x | x | x | x | x | x | x | x | o |
| Heavy-duty battery compartments | x | x | x | x | x | x | x | x | |
| Information display | x | x | x | x | x | x | x | x | |
| Power/Electronic steering | o | o | o | o | o | o | o | o | o |
| Powertrak traction system | x | x | x | x | x | x | x | x | |
| Programmable performance | x | x | x | x | x | x | x | x | |
| Sensi-lift | x | x | x | x | x | x | x | x | |
| Sideways battery change | o | o | o | o | o | o | o | o | |
| Sideshift | | | | | | | | | o |
| Straddle support arm version | | | x | | | | | | |
| Tilting mast | | | | | | | | | x |
| Writing table | o | o | o | o | o | o | o | o | |
| **Safety** | | | | | | | | | |
| Automatic parking brake | x | x | x | x | x | x | x | x | x |
| Access control by PIN-code | x | x | x | x | x | x | x | x | |
| Access control by electronic key/card | o | o | o | o | o | o | o | o | |
| Clear-view mast | x | x | x | x | x | x | x | x | x |
| Clear-view overhead guard | o | o | o | o | o | o | o | | o |
| Driver detection system | x | x | x | x | x | | | x | |
| Electronic speed control | x | x | x | x | x | x | x | x | x |
| Emergency collision button | x | x | x | x | x | x | x | x | x |
| Emergency cut-off | x | x | x | x | x | x | x | x | x |
| Fixed sideguards | o | o | o | o | o | | | o | |
| Folding sideguards | x | x | x | x | x | o | o | x | |
| Load support | o | o | o | o | o | o | o | o | o |
| Rear backrest/guard | o | o | | o | o | | | o | |
| Storage compartments | x | x | x | x | x | x | x | x | |
| Temporary speed reduction (‘turtle’ button) | o | o | o | o | o | o | o | o | |
| **Durability** | | | | | | | | | |
| Bogie fork wheels | x | x | x | x | x | x | x | x | |
| Easy access for maintenance | x | x | x | x | x | x | x | x | x |
| Electronic braking system | x | x | x | x | x | x | x | x | x |
| Electronic regenerative brakes (motor) | x | x | x | x | x | x | x | x | x |
| Fault diagnosis facility | x | x | x | x | x | x | x | x | x |
| Historic fault log | x | x | x | x | x | x | x | x | |
| Hour meter (working hours) | x | x | x | x | x | x | x | x | o |
| **Special applications** | | | | | | | | | |
| Coldstore version | o | o | o | o | o | o | o | o | |
| EEx version (ATEX) | | | | | | | | | |

x = standard  o = option

TOYOTA

MATERIAL HANDLING

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TOYOTA INDUSTRIAL EQUIPMENT

BT

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