

BT optio

1.0 – 2.5 tons
Order Picking Trucks





L-series



L-series



L-series



M-series



H-series

BT Optio – the *complete* range of order picking trucks

Productivity – Driveability – Safety – Durability

Efficient order picking is the primary concern of distribution businesses today. Toyota Material Handling Europe understands this and has designed the BT Optio range to meet the needs of today's and tomorrow's commercial world, maintaining productivity and driving down costs. Like all BT warehouse trucks, the BT Optio range is designed to work effectively in chilled environments.

Picking at the first and second levels is covered by the BT Optio **L-series**. Nine distinct models offer low-level order picking for every application and type of goods. Elevating forks, elevating driver platform and controls, long forks – even a version combining all of these features – are standard in the L-series. E-man steering means that the electronic tiller arm can be set on either side of the truck for one-handed operation, easing reversing and 'walk-along' picking.

The BT Optio **M-series** range allows picking up to 6.3 metres, increasing the number of picking faces within an operation. Elevating forks allow easy placement of picked items on to the pallet.

The all-new BT Optio **H-series** offers picking heights up to 12 metres – the highest available on the market today. This advanced machine offers high travel speed, acceleration rate, high lift/lower speeds, plus a host of advanced safety features, to take order picking to the next level.

The ability to pick individual items at height creates increased flexibility, but working at height demands safety. BT Optipace electronically optimises speed, acceleration and braking according to the truck's elevation. This means that acceleration rates and travel speeds are maximised within safe limits when working at height.

BT Optio L-series

making hard work easier

The BT Optio L-series trucks ensure productivity by being powerful, efficient, adaptable, and easy-to-use. Low-level order picking is intensive work for truck and operator alike but BT Optio is designed to help in every way, increasing the effectiveness of the man-machine unit and therefore helping to drive down costs.

BT Powerdrive

All BT Optio L-series models are intuitively easy to control thanks to BT Powerdrive. 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.

E-man control

The control console on BT Optio L-series trucks is fully electronic and therefore offers a number of significant advantages. The E-man mini-tiller arm can be offset to either side (option) for easier reversing and walk-with operation. E-man control also means that the truck can offer a clear platform for the operator to stand on in second level operations. Models with elevating platforms also have elevating controls, allowing manoeuvring and driving without having to lower the platform.

Regeneration of energy

Low energy consumption and regenerative motor braking mean that L-series can achieve more work cycles per battery charge. The regenerated energy can give an increase in operating hours, depending on the application.

Programmable performance

Truck performance is fully programmable to suit the application, with easy access to various parameters via the digital display and controls on the E-man mini tiller arm.

Easy battery change

Most low-level order picking operations call for extended shift patterns – even 24/7 operation. L-series is designed for fast and easy battery change.

Flexible second-level operation

On BT Optio L-series models with elevating platform the E-man control arm also rises with the platform so that the truck can be manoeuvred, or even driven to the next picking location, without the operator having to lower the platform.

Being able to control the truck in the elevated position has a number of benefits. For example, the precise position of the truck can be ‘fine-tuned’ after the operator has raised the platform, to enable easier picking. The truck can also be driven whilst the platform is being lowered or raised. The platform can be lowered using a foot-operated switch on the platform floor, which is invaluable if the operator – as is likely – is holding an item while lowering the platform.



The E-man mini-tiller arm can be offset to either side (option) for easier reversing and walk-with operation



BT Optio L-series models with elevating platforms also have elevating controls, allowing manoeuvring and driving without having to lower the platform



L-series – the range

1st-level picking ...



OSE120

- Max. capacity 1200 kg
- Elevating forks for better ergonomoy
- Available with step-up kit
- Fork lengths up to 2.35 m
(to handle up to three roll cages or two Euro pallets)



OSE250

- Max. capacity 2500 kg
- Available with step-up kit
- Fork lengths up to 2.9 m
(to handle up to four roll cages or two Euro pallets)



OSE200X

- Max. capacity 2000 kg
- Available with step-up kit
- Elevating forks up to 0.8 m
- Fork lengths up to 2.85 m



OSE120CB

- Max. capacity 1200 kg
- CB version can be used like a counterbalanced truck for stacking as well as for conventional order picking

... up to 2nd-level picking



OSE120P

- Max. capacity 1200 kg
- Elevating platform and controls for intensive picking up to 2.6 m
- Elevating forks (up to 0.8 m) for better ergonomoy
- Fork lengths up to 2.35 m
(to handle up to three roll cages or two Euro pallets)



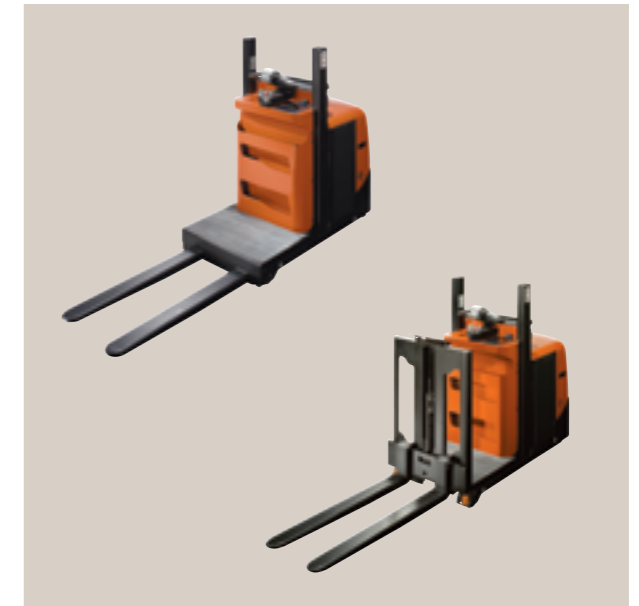
OSE250P

- Max. capacity 2500 kg
- Elevating platform and controls for intensive picking up to 2.6 m
- Fork lengths up to 2.9 m
(to handle up to four roll cages or two Euro pallets)



OSE180XP

- Max. capacity 1800 kg
- Elevating operator platform and controls for intensive picking up to 2.6 m
- Elevating forks up to 0.8 m
- Fork lengths up to 2.85 m



OSE100W / OSE100

- Max. capacity 1000 kg
- Elevating platform up to 1.2 m for lower-intensity man-up picking
- On OSE100, initial lift allows the load carrier to be elevated for comfortable operation

BT Optio L-series *safety with every step...*

Low-level order picking's combination of manual and powered handling, its repetitive nature, and its constant stopping and starting, all present a challenge to safety. BT Optio L-series is designed with all this in mind.

Automatic safe steering

The E-man mini tiller arm offers power assisted steering that can be safely operated with only one hand. The operator's hand will never need to be outside the profile of the truck – a 60° movement in the tiller arm providing 100° of lock on the steering.

For added safety and ease-of-use, the drive-wheel will always revert to the straight-ahead position when E-man is released. Furthermore, the electrical servo absorbs any shocks to the drive-wheel to protect the driver. When the truck is operated by a pedestrian the steering radius is automatically limited.

Automatic braking

BT Optio L-series models' progressive auto-braking is activated whenever the drive control is released. This assists the operator by automatically delivering smooth speed reduction.

Automatic speed reduction

The BT Powerdrive system allows automatic speed reduction when cornering, to ensure safe operation and confident driving. Automatic speed reduction also applies when driving at the second level ('P' models) or when the truck is pedestrian-operated.



An optional step-up kit aids occasional second-level picking on OSE120, OSE250, and OSE200X models



PIN-code activation provides a high level of security as well as allowing the truck's performance characteristics to be optimised for each operator

...and round-the-clock durability

BT Optio L-series is designed not to let you down.

The simplicity of BT Powerdrive means fewer components, greater reliability and lower maintenance costs. A complete diagnostic system is provided on-board, and all components are easily accessible for rapid service and repair.

Reduced drive-wheel wear

One of the major wearing parts on most low-level order pickers is the drive-wheel, due to the stress of repeated starting and stopping. The smooth, controlled operation of the electronic braking system on BT Optio L-series trucks significantly reduces drive-wheel wear.



The drive-wheel on BT Optio L-series models sustains significantly less wear thanks to the trucks' electronically controlled acceleration and braking



L-series models have excellent service access, helping to keep your operation running



BT Optio M-series *productivity up to 6.3 metres*

The BT Optio M-series offers picking up to 6.3 metres and is suited to a wide variety of distribution applications including food, household appliances, parts, and pharmaceuticals. Narrow chassis 'N' models are ideal for picking up to the third level (3.4 metres) in the most congested applications.

Picking at levels 1 to 3 – OME100 / OME100W

For picking at the first three levels (up to 3.4 metres), BT Optio M-series offers a choice of models. The OME100W is a 'walk-through' model designed for handling bulky items.

The control console and backrest on the OME100 can easily be repositioned for driving in both directions (facing either the mast or the forks), improving safety and productivity. Users can also choose between fixed forks and adjustable forks. Adjustable forks allow greater flexibility when handling differently sized items with a variety of load carriers.

Higher level picking – OME100M / OME100MW

These models offer maximum picking heights up to 6.3 m.

Designed for wire or rail guided operation in very narrow aisles, as well as 'free-ranging' in wider aisles, OME100M and OME100MW are particularly suited to intensive narrow aisle operations.

BT Optipace constantly monitors travel speed in relation to platform height. This means that the operator can concentrate on picking, confident about machine stability and performance.

BT Optio M-series' spacious cabs, with the minimal distance

between the operator and the load carrier, maximise productivity and reduce operator strain, thereby helping to drive down costs.

OME100N / OME100NW

The narrow 'N' models in the BT Optio M-series are designed specifically for 'free ranging' (ie, not automatically guided) operation in busy and confined applications. These trucks are extremely easy to use as the load is directly in front of the operator. Excellent performance together with an ergonomic, reliable design achieves high levels of productivity. They also feature E-man steering, as found on the BT Optio L-series.

The travel speed of 12 km/h together with high acceleration increases picking pace. Advanced motor technology means it is very easy to adjust top speed, acceleration and speed reduction to meet individual requirements. There are 10 individually adjustable operator programs.

All BT Optio M-series trucks offer an optional E-bar, which allows the mounting (with power supply) of ancillary equipment such as PCs and barcode readers.



M-series 'W' models have a 'walk-through' design for picking bulky articles



The comprehensive display shows lift height, battery status and drive-wheel position as well as warning and error codes

M-series

the range



OME100N

- Narrow chassis
- E-man steering
- Picking heights up to 3.4 m (platform height 1.8 m)
- Max. capacity 1000 kg
- Chassis width 810 mm



OME100NW

- 'Walk-through' version of the OME100N (above) for handling bulky items



OME100

- Similar to OME100M (below) but without overhead guard
- Max. 3.35 m picking height (maximum 1.75 m platform height)
- Chassis width 970 mm
- Cabin widths: 1000 mm, 1200 mm, 1400 mm



OME100M

- Man-up picking from up to 6.3 m (platform height range 2.0 m – 4.7 m)
- Max. capacity 1000 kg
- Chassis width 970 mm
- Cabin widths: 1000 mm, 1200 mm, 1400 mm



OME100W

- 'Walk-through' model of the OME100 (left) for handling bulky items



OME100MW

- 'Walk-through' version of OME100M for bulky items
- Max. capacity 1000 kg
- Chassis width 970 mm
- Cabin widths: 1000 mm, 1200 mm, 1400 mm

BT Optio M-series *safe for your goods, your operators...*

Operation of the BT Optio M-series requires the driver to be elevated for much of the time. Therefore, safety has been at the heart of its design from the very beginning.

The BT Optipace system on higher lift models automatically adjusts truck speed according to lift height, allowing maximum productivity without compromising safety.

PIN-code start up offers higher operational safety by preventing use by unauthorised drivers.

All M-series models feature folding side gates (optional on OME100N and OME100), including a threshold, which prevents the operator's foot from protruding outside the cab. This, together with large and flat floor area, allows comfortable and safe picking throughout a shift.

Sensors prevent the truck from being driven without hands on the controls, helping to ensure that the operator is in a safe position before any movement takes place.

The compact size of the trucks, in combination with the advanced BT electronic steering and fingertip controls, including push-button brake, makes fine positioning and confident driving in or out of the aisle, easy.

A complete auto-test routine is carried out every time each M-series model is activated. This is repeated continuously during operation to ensure safety.



All M-series models feature folding side gates (optional on OME100N and OME100)



The OME100 and OME100W's parcel rail allows the top of the truck body to be used for temporary storage

... and your business

M-series is built to work day after day with a minimal need for maintenance, meaning more uptime and lower lifetime cost.

Built to the rigorous standards of the Toyota Production System, all BT Optio models feature heavy-duty components and the highest quality build.

The BT Powerdrive system on 'N' models provides reliability and simplicity. CAN-Bus technology means fewer parts and reliable motor and system control. Routine and emergency maintenance is straightforward, with easy access to all components.



LED indicators and the digital display allow rapid fault diagnosis

BT Optio H-series

a new standard in high-level order picking

The all-new BT Optio H-series sets a new standard in high-level order picking. It offers the highest-level picking in its class, despite its compact design, and it has the safety features to make such operation an everyday activity. High-level picking allows maximum operational flexibility, helping companies to drive down costs.

BT Optipace

The BT Optio H-series is designed to perform 'free-ranging' and in narrow aisles, with either rail or wire guidance. In both situations the operator aims to move between picking positions as quickly and smoothly as possible. H-series excels at 'diagonal' driving, where the truck is both driving and lifting or lowering at the same time. The BT Optipace system monitors the truck's load as well as the lift height and automatically optimises travel speed accordingly. This allows the operator to concentrate on picking the goods, working at speed, with confidence.

A comfortable place to work

The spacious H-series cabin is easy to get in and out of thanks to the low step and wide entry. The backrest is adjustable and there is the option of a seat for applications demanding longer travel distances.

The truck features efficient in-cab lighting and there are several places to store items. A writing pad is integrated in the auxiliary lift cover. A cooling fan and radio/CD unit can also be specified.

Flexible control

The truck's controls can be mounted in either the fork direction or the mast direction, depending on the operator's preference. Alternatively, the truck can be specified with twin controls for

maximum versatility. A fourth alternative is to have a 'light' version in which the auxiliary lift is controlled with two buttons and a full set of controls faces the mast.

All controls are height adjustable and drive and lift/lower functions are fingertip controlled for maximum precision.

High-level performance

The performance of BT Optio H-series is excellent thanks to a high travel speed (max. 12 km/h), quick acceleration and fast lift/lower speeds. Performance parameters are programmable and personal settings are engaged as soon as an operator starts the truck with his PIN-code or ID card.

The display features standard height indication and, optionally, weight indication. The optional height pre-selection function automatically moves the cabin to the next required level.

AC efficiency

Every time the cabin is lowered or the truck decelerates, energy is regenerated back to the battery. Because of this the H-series is able to work for two full shifts on one battery charge in many applications. The battery can be changed quickly thanks to the built-in rollerbed.



The cabin and controls are designed to make picking to a pallet as easy as possible



The unique E-bar can be specified in a number of locations for mounting and powering devices such as computers and barcode scanners



H-series

the range



OME100H

- Man-up picking up to 12 m (platform height 10.5 m)
- Max. capacity 1000 kg
- Choice of chassis width: 1050 mm or 1250 mm
- Choice of cab width: 1000 mm, 1100 mm, 1200 mm, 1300 mm, 1400 mm, 1460 mm, 1500 mm, 1600 mm, 1800 mm
- Auxiliary lift version with fixed or adjustable forks



OME120HW

- Man-up picking up to 12 m (platform height 10.5 m)
- Max. capacity 1200 kg
- Choice of chassis width: 1050 mm or 1250 mm
- 'Walk-through' design to fit standard EUR and CHEP pallets. Fixed platforms also available

BT Optio H-series

a new standard in safety...

Order picking at heights of up to 12 metres demands equally high levels of safety. BT Optio H-series is designed with many features to help ensure safe productivity.

Restricted access

To ensure that only fully trained and qualified operators can use H-series, the truck will not start without either a correct PIN-code or by using the optional ID key or card system.

Multiple presence system

The operator is further protected as the truck will not be operational until the operator places both hands on the controls and is standing inside the truck on the cab floor.

The drive-wheel will always be in the straight-ahead position upon start-up and, outside an aisle, the drive-wheel indicator clearly shows the driver its position, keeping him in complete control. An automatic parking brake is applied whenever the truck comes to a stop.

Totalview design

Visibility is optimised thanks to the open cab layout and clear-view mast and overhead guard.

Advanced personal protection system

BT Optio H-series is also prepared for the optional advanced personal protection system. This detects obstructions in the aisle that might not be visible from an elevated cab, reducing speed and, if necessary, stopping the truck completely.

Physical security for the operator is assured by the strong cab design with overhead guard and folding side-gates. In the event of an emergency, the cabin can be easily lowered.

The information display indicates lift height, load weight and battery condition, as well as alerting the driver in the event of a detected fault.

Efficient LED arrays provide in-cab lighting and there are several places to store items. A writing pad is integrated in the auxiliary lift cover. A cooling fan and radio/CD unit can also be specified.



BT Optio H-series requires either a PIN-code or an ID key (option) to start



The multiple presence system ensures that the operator is safely in the cab before the truck can move

... with Toyota durability

When a truck is designed for high productivity and long working shifts, durability is important, particularly as high-level order picking trucks are the vital link in any supply chain.

Reliability is essential

You can depend on BT Optio H-series. Quality assurance comes as standard because every BT warehouse truck is built to the stringent quality standards of the Toyota Production System.

The components used in the H-series are all designed for hard, continuous work. Powerful AC drive and lift motors work together with a heavy-duty gearbox. Sealed electronic components and heavy-duty materials assure a long working life, with careful attention to detail assuring reliability at every level.

In the event of a system failure, H-series is built with self-diagnostics to quickly identify the problem and get back in action fast.

Periodic maintenance is a requirement for all forklift trucks, but the BT Optio H-series is designed for long service intervals. For example, its AC motors are brushless and its gearbox oil will never need to be replaced. At the end of its life, BT Optio H-series is 99% recyclable.



All exterior parts are made of steel, for strength and protection



Non-exposed parts, such as the battery cover, are made of plastic to save weight



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 optimize 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

Toyota Material Handling Europe 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.

Choose the features that suit your needs

	BT Optio OSE250	BT Optio OSE250P	BT Optio OSE100	BT Optio OSE100W	BT Optio OSE120	BT Optio OSE120P	BT Optio OSE120CB	BT Optio OSE200X	BT Optio OSE180XP	BT Optio OME100N	BT Optio OME100NW	BT Optio OME100	BT Optio OME100W	BT Optio OME100M	BT Optio OME100MW	BT Optio OME100H	BT Optio OME120HW
● standard ○ option																	
Truck features																	
Adjustable width over forks		○					○			●	●	●	●	●	●	●	●
Bogie fork wheels	●	●			●	●		●	●								
BT Powerdrive	●	●	●	●	●	●	●	●	●	●	●						
Choice of cab widths			●	●						●	●	●	●	●	●	●	●
Choice of chassis widths																	●
Climber wheels	○	○															
Elevating platform		●	●	●		●			●	●	●	●	●	●	●	●	●
High-capacity battery models	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High performance models	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Wire/rail guidance												●	●	●	●	●	●
Driving features																	
180°+ steering												●	●	●	●	●	●
200°+ steering	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Automatic deceleration	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electronic braking system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electronic regenerative brakes (motor)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electronic speed control	●	●	●	●	●	●	●	●	●	●	●						
Controls and instruments																	
Adjustable BT Control console												●	●	●	●	●	●
Adjustable E-man tiller arm	○	○			○	○	○	○	○								
Electronic height indicator												●	●	●	●	●	●
Exterior lift/lower buttons									○								
Exterior lift/lower/forward buttons			○	○	○	○			○	○	○						
Hour meter (working hours)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Information display	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power/Electronic steering	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Steering direction indicator												●	●	●	●	●	●
Switchable BT Control console												●	●				
Twin direction controls																	○
Safety features																	
Automatic parking brake	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BT Access Control (PIN codes)	●	●	●	●	●	●	●	●	●	●	●						
Smart Access (electronic cards/fobs)	○	○	○	○	○	○	○	○	○	○	○						○
BT Optipace System												●	●	●	●	●	●
Clear-view mast									●								
Clear-view overhead guard			○	○			○			○	○						
Driver detection system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Emergency cut-off	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Folding sideguards										○	○	○	○	○	○	○	○
Load support	○				○		○	○	○								
Programmable gate security												●	●	●	●	●	●
Programmable performance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Protective bumpers	○	○			○	○		○	○								
Warning beacon												●	●	●	●	●	●
Working lights															○	○	○
Operator features																	
Adjustable backrest												●	●	●	●	●	●
Adjustable seat																	○
E-bar	○	○			○	○	○	○	○	○	○				○	○	○
Elevating picking shelf		○							○								
Folding seat	○				○		○	○									○
Low step-in	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
On-board data terminal mount	○	○	○	○	○	○	○	○	○	○	○				○	○	○
Shrinkwrap holder	○	○	○	○	○	○	○	○	○	○	○						
Step-up kit	○				○		○										
Storage compartments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Writing table/surface	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	●	○
Maintenance features																	
Easy access for maintenance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Fault diagnosis facility	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Historic fault log	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lubrication points	●	●															
Battery management features																	
Battery change facility	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Battery status indicator	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Battery discharge prevention system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heavy-duty battery compartment	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Sideways battery change	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●
Special applications																	
Coldstore version	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



TOYOTA

MATERIAL HANDLING

stronger together

