

BT optio

1.0 – 2.5 tons
Order Picking Trucks





L-series



L-series, 1000 kg–2500 kg
Picking height: 0 m–2,6 m



L-series, CB version, 1200 kg
Picking height: 0 m–1,6 m
Max. lift height: 4,1 m



M-series, 1000 kg–1200 kg
Picking height: up to 6,3 m



H-series, 1000 m–1200 kg
Picking height: up to 12,1 m

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

Productivity – Driveability – Safety – Durability

Order picking is one of the most progressive stages of the logistics chain, forever responding to increasing consumer expectations and demanding business needs, both in terms of increasing numbers of product lines to be stored, and faster delivery rates. The BT Optio range has been carefully developed to meet the most challenging demands at all picking heights. The BT Optio range is designed to work effectively in chilled environments.

The latest family of low level order picking trucks from TMHE is the BT Optio **L-series**. This wide range of trucks has been developed to be able to respond to all types of demand when working at first and second levels. Multiple consignment handling is possible with the longest forks in their class and this includes models with waist-height forks for improved ergonomics in the handling process. A *Smooth Operator* design concept means that these machines are built to maximise the overall performance of the people involved in the order picking process.

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 Optio 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. The *Smooth Operator* concept for order picking extends to these high-lift models giving a series of advantages for maximum productivity.

BT Optio L-series

Advanced design for driveability

The BT Optio L-series has been designed around a Smooth Operator concept, in order to provide maximum effective support to the human operator undertaking the task of picking the goods. This means providing a comfortable and easy-to-use workplace, that is well organised and efficient.

Models with platform lift offer smooth and precise elevation with Sensi-lift control. Lowering is achieved by a foot pedal which means both hands are free to carry the items being picked. The elevating E-man control handle allows the truck to be driven in the elevated position, facilitating fine positioning during the picking process and point-to-point driving.

Low step-in

The operator will be stepping on and off the truck hundreds of times every day so BT Optio L-series has a very low step-in height, reducing fatigue and enhancing productivity.

The backrest provides a comfortable driving position, reducing strain in demanding operations.

E-man control system

The E-man control system on BT Optio L-series models is based on an extremely flexible steering arm with touch-sensitive activation of drive, lift and lower functions and effortless electronic steering. The steering arm is designed to follow the operator's position. It can be moved to either side to allow pedestrian control, walking alongside, and if the truck is equipped with an elevating operator platform the steering arm elevates correspondingly. This allows simple and efficient driving of the truck in all conditions.

Streamlined administration

Efficient administration is essential in order picking and the BT Optio L-series provides a very effective mobile office, with several storage compartments to allow organised working. The truck is also prepared for a shrinkwrap holder and other accessories. Most order picking operations need onboard management devices such as computers and barcode scanners. The E-bar facility available on the BT Optio L-series incorporates a power supply and allows easy attachment.

Frequency-Adapted Suspension

Vibration during driving can be an issue in some applications. BT Optio L-series trucks have the option of Frequency-Adapted Suspension, to help eliminate vibration. It is based upon a special sprung suspension system that combats vibration at various frequencies.

Optimised Truck Performance

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



BT Optio's low step-in height reduces the strain of repeatedly stepping into and out of the truck. The floor is suspended to reduce vibration



The BT Optio L-series E-bar option allows the mounting and powering of ancillary equipment such as computers and barcode scanners



BT Optio L-series

Productivity with safety

The latest range of BT Optio L-series low-level order picking trucks has been developed to offer the highest performance standards from both man and machine. The range provides a complete choice of models for first and second-level picking with a wide range of forklift configurations, including many options for waist-level picking. The option of exceptionally long fork units facilitates multiple load handling, to further maximise productivity.

SureStep-up

For occasional second level accessions, BT Optio L-series trucks can be equipped with a SureStep-up facility. Based on a slip-free step in the backrest that has been designed to ensure a wide and safe step, but without impacting on platform space when driving, giving access to a clear wide working platform upon the motor compartment.

Automatic safe steering

The electronic steering system provides many safety benefits. The E-man steering arm is geared to reduce the turning angle required. This ensures the operators arms are safely contained within the profile of the truck.

The drive-wheel always revert to the straight-ahead position when the steering arm is released to ensure safe start-up, and the steering radius is automatically reduced when the truck is pedestrian controlled.

Optimised Truck Performance

The BT Powerdrive system allows for truck speed to be automatically reduced when cornering to ensure fast but safe driving in all conditions. On second level machines automatic speed reduction also applies when driving in the elevated position.

Automatic braking

The BT Powerdrive system means that as soon as the E-man control handle is released smooth progressive braking is applied, to ensure smooth, responsive control.



BT Optio L-series offers useful front and rear storage compartments. The front compartment even has a rest for shrinkwrap



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

and round-the-clock durability

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

BT Powerdrive

The BT Optio L-series family features the BT Powerdrive motor control system with AC power. A central processor monitors and controls the performance of the truck resulting in super-smooth control at all speeds.

The BT Powerdrive system combines with advanced AC motors means a truck with remarkably simplicity in design and fewer components, resulting in greater reliability and lower maintenance costs. On-board diagnostics ensure that in the event of a fault it can be quickly identified and resolved.

Energy efficiency

Every time the truck decelerates or the brakes are applied energy is passed directly back to the battery, allowing long working shifts on a single charge. For multiple shift operations the BT Optio L-series is designed for fast and easy battery change.



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

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.



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

BT Optio M-series up to 6,3 m picking height

Safe for your business

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 height

For picking at the first three levels (up to 3.4 metres), BT Optio M-series offers a choice of models. The OME100W and OME100MW are 'walk-through' model designed for handling bulky items.

The OME100N and OME100NW feature E-man steering, as found on the BT Optio L-series, the other M-series models are equipped with advanced BT electronic steering and fingertip controls, including push-button brake. The full range of the M-series models have compact size which together with the controls makes fine positioning and confident driving in or out of the aisle, easy.

Taking picking to the next level BT has the models OME100M and OME100MW with a picking height up to 6.3 meters.

Cab

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.

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. The OME100M offers an optional E-bar, which allows the mounting (with power supply) of ancillary equipment such as PCs and barcode readers.

Controls

The control console and backrest on the OME100 and OME10M can easily be repositioned for driving in both directions (facing either the mast or the forks), improving safety and productivity.

Travel speed/driving

Advanced motor technology means it is possible to adjust top speed, acceleration and speed reduction to meet individual requirements.

The travel speed for the M-series machines are 9 km/h, except for the OME100N and OME100NW machines that reaches a maximum speed of 12 km/h. The speed together with a high acceleration increases the picking pace.

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



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



BT Optio M-series up to 6,3 m picking height

... your goods and 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.

Adjustable forks

The truck without picking cage can be built with a choice of fixed and adjustable forks. Adjustable forks allow greater flexibility when handling differently sized items with a variety of load carriers.

Aisle guidance

Designed for wire or rail guided operation in very narrow aisles, as well as ‘free-ranging’ in wider aisles, the BT Optio M-series are particularly suited to intensive narrow aisle operations.

The narrow ‘N’ models in the BT Optio M-series are designed for ‘free ranging’ operation in busy and confined applications, it can not be ordered with wire or rail guidance.

Built-in Safety

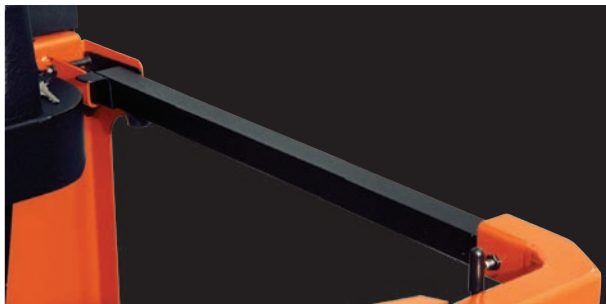
All M-series models feature folding side gates (optional on OME100N and OME100), including a threshold, which prevents

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 (not applicable on OME100N and OME100NW), helping to ensure that the operator is in a safe position before any movement takes place.

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.

PIN-code start up offers higher operational safety by preventing use by unauthorised drivers on the OME100N and OME100NW models.



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

BT Optio H-series up to 12,1 m picking height

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 model OME100H’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



BT Optio H-series

a new standard in safety and durability

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. 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.

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.

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.



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

L-series – the range

1st-level picking ...



OSE120

- Max. capacity 1200 kg
- Elevating forks for better ergonomics
- 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 ergonomics
- 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

M-series *the range*

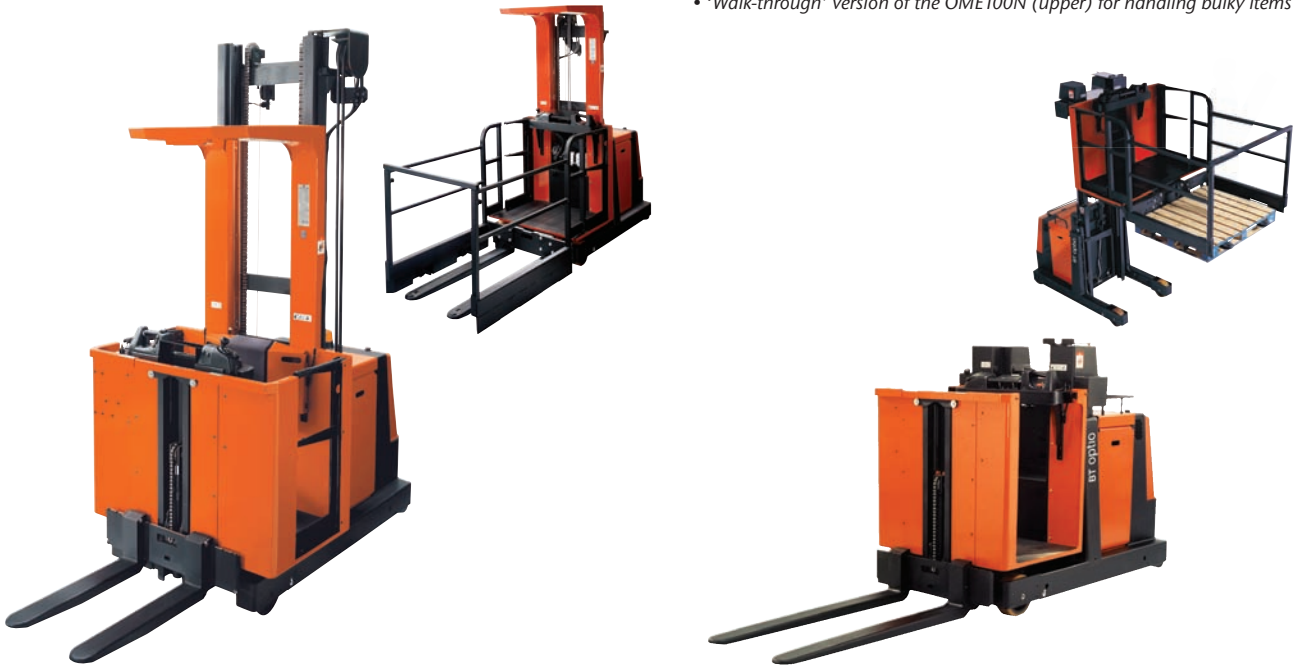


OME100N

- 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 (upper) for handling bulky items



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

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

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

OME100W

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

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



Toyota Production System

BT has a long history with export world-wide with close relationship with the market through independent and owned distribution channels. The close geographic link with the customer is a must to be able to respond to their needs. Our BT branded products are manufactured in Mjölby (Sweden) and Bologna (Italy).

Toyota Production System (TPS)

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

BT 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, BT 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

BT 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. BT strives to reduce environmental impact throughout the product life cycle, from design, manufacturing and operation through to recycling at end-of-life. The BT production centres are 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, BT seeks to continuously improve the recyclability levels of its products.

Choose the features that suit your needs

● standard ○ option

	BT Optio OSE100	BT Optio OSE100W	BT Optio OSE120	BT Optio OSE120P	BT Optio OSE120CB	BT Optio OSE180XP	BT Optio OSE200X	BT Optio OSE250	BT Optio OSE250P	BT Optio OME100N	BT Optio OME100NW	BT Optio OME100	BT Optio OME100W	BT Optio OME100M	BT Optio OME100MW	BT Optio OME100H	BT Optio OME120HW
Truck features																	
Adjustable width over forks	○				○					●		●		●		●	
Bogie fork wheels			●	●		●	●	●	●								
BT Powerdrive	●	●	●	●	●	●	●	●	●	●	●						
Choice of cab widths	●	●								●	●	●	●	●	●	●	●
Choice of chassis widths																●	●
Climber wheels								○	○								
Elevating platform	●	●		●		●			●	●	●	●	●	●	●	●	●
Wire/rail guidance												●	●	●	●	●	●
Driving features																	
180°+ steering												●	●	●	●	●	●
200°+ steering	●	●	●	●	●	●	●	●	●	●	●						
Automatic deceleration	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electronic braking system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electronic regenerative brakes (motor)	●	●	●	●	●	●	●	●	●	●	●					●	●
Controls and instruments																	
Adjustable E-man tiller arm			○	○	○	○	○	○	○								
Electronic height and steering direction indicators												●	●	●	●	●	●
Exterior lift/lower buttons					○												
Exterior lift/lower/forward buttons	○	○	○	○		○	○			○	○						
Information display, including Hour meter (working hours) and steering direction indicator	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power/Electronic steering	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Possibility to switch over controls (driving direction)												●		●			
Twin direction (double) 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 and emergency cut-off	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Folding sideguards										○	●	○	●	○	●	○	●
Load support			○		○	○	○	○					●		●		●
Programmable sideguard security												●	●	●	●	●	●
Programmable performance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Protective bumpers			○	○		○	○	○	○								
Warning beacon												●	●	●	●	●	●
Working lights														○	○	○	○
Operator features																	
Adjustable backrest and control console												●	●	●	●	●	●
Folding operator support rest			○		○		○	○									○
E-bar			○	○	○	○	○	○	○	○	○			○	○	○	○
Onboard data terminal mount	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○
Elevating picking shelf				○		○			○								
Shrinkwrap holder	○	○	○	○	○	○	○	○	○	○	○						
Storage compartments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Writing table/surface	○	○	○	○	○	○	○	○	○	○	○	●		●		●	○
Low step-in	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Step-up for second level picking			○					○	○								
Maintenance features																	
Easy access for maintenance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Fault diagnosis outlet with fault log	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Battery management features																	
Battery handling facility	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Battery indicator with discharge prevention system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sideways battery change	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Special applications																	
Coldstore version	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



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