

WS Series Electric Pedestrian Stacker

with capacity of 1,200kg and 1,500kg



CTD15-WS

CDD12-WS & CDD15-WS

CDD12-WS & CDD15-WS



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ISO45001
ISO45001:2018



ISO14001
ISO14001:2015



ISO9001
ISO9001:2015



HANGCHA trucks conform
to the European Safety
Requirements

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WS Series

Electric Pedestrian Stacker



Variable Speed Control



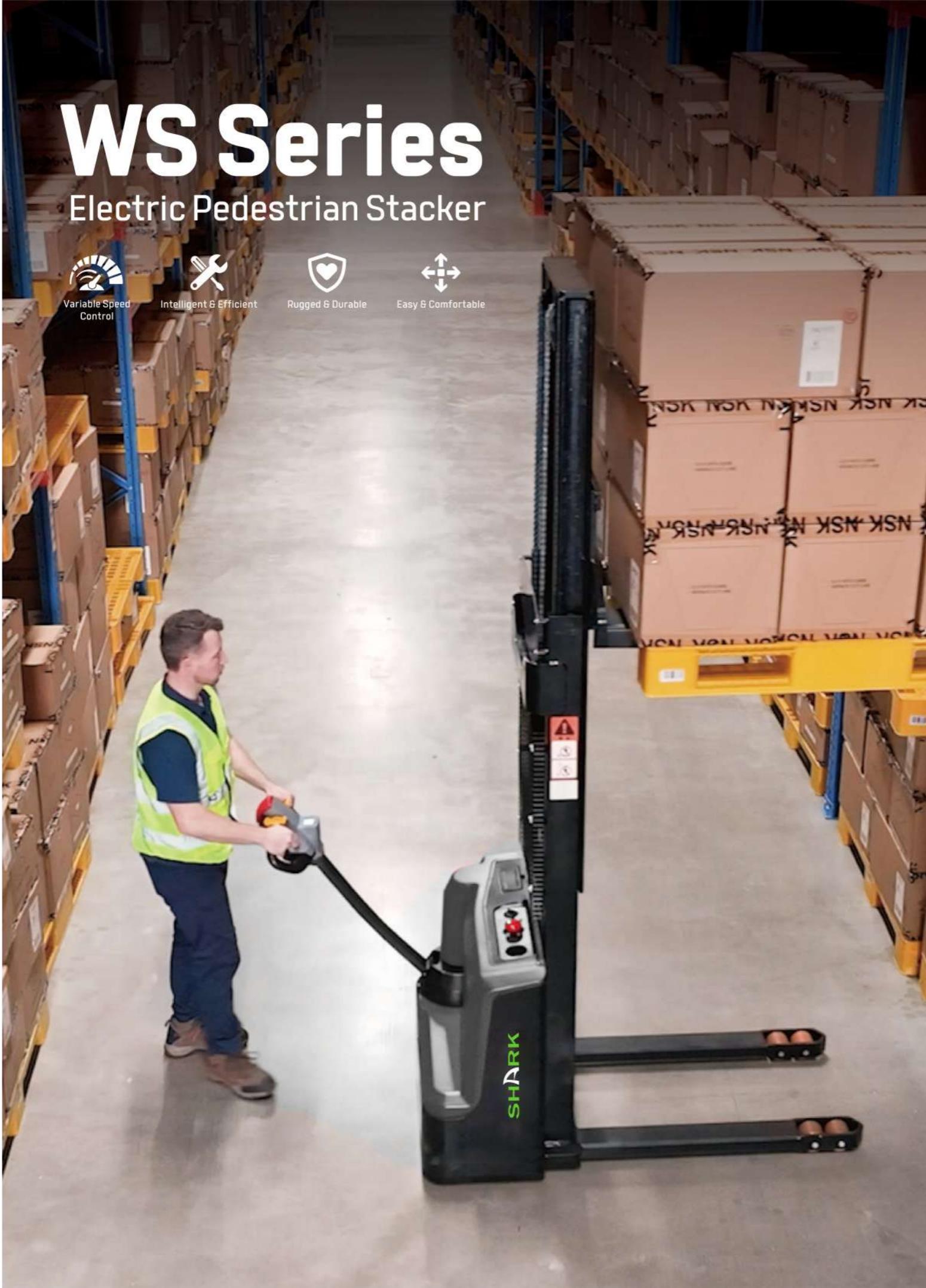
Intelligent & Efficient



Rugged & Durable



Easy & Comfortable



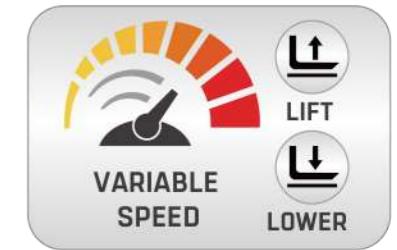
Variable Speed Control on Lifting & Lowering

- Comfortable and efficient thanks to Shark patented intelligent handle and control system, ideal for replacing manual & semi-electric stackers, for light use in narrow warehouse environments with efficient and easy pallet stacking.
- The proportional lowering brings high efficiency for exact pallet placement and more precise control when compared to the normal fixed speed of lifting & lowering.
- Variable speed control by proportional control knob, keeps lifting and lowering smooth, stable, safe and energy saving.

BEFORE



NEW



Precise Control

Proportional lifting & lowering

The variable speed control ensures the stacker goes up and down smoothly, minimizing the mechanical shock and vibration, ensuring fragile loads are gently placed on racking or the floor, and reducing the impact of noise and vibration on operators.



LIFT TO 3M IN 14s **LOWER DOWN IN 17s**

(FOR CDD12-WS & CDD12-WS-I)

High efficiency

The variable speed control brings accurate response for adjusting the lifting & lowering speed according to the actual situation, the operator can easily complete the task and improve the working efficiency.

Longer service life

Variable speed control can reduce the mechanical impact and friction during lifting & lowering, reduce the wear and tear on the chassis, mast, bearings, and enable a longer service life.

Lowering buffering

Automatic lowering speed descent with soft buffering when the fork height is lowered to around 10cm from the ground, effectively protects the safety of the cargo, low noise and small vibration.

Energy saving

Compared to the traditional fixed lifting & lowering speed, variable speed can be adjusted according to the load and height by operator, reducing energy waste and improving energy utilization rate.

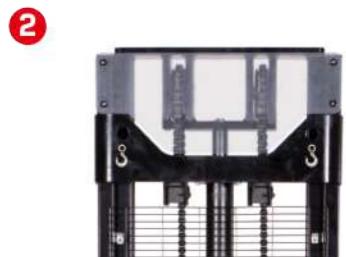
Rugged & Durable

Due to a high-strength frame and mast design and solid materials used, the deformation of the frame, mast, and forks is small.



Longer service life

Mast: Standard C+H channel steel
Frame: Steel plate thickness of 5mm
Frame bottom plate: 30mm integrated steel plate



Double-chain design

Compared with single-chain design, it has higher strength, safer and more stable.



Built-in charger

Hidden charging plug, high safety, the whole vehicle is powered off during charging, reducing safety hazards.



Safe operation

④ Emergency reverse switch

In case of an emergency, it protects the operator and the surrounding personnel from harm.

Safety travel speed limit

When the fork is lifted to above 500mm, the driving speed automatically reduces to 2km/h to ensure the safety of operating at a high position in case of any misoperation.

The low ground clearance of 30mm helps to reduce the risk of foot injuries

Small deformation of forks and masts, stable and durable

More stable when lifting & lowering with loads.

Standard equipped with cylinder explosion-proof valve

It can prevent accidents such as uncontrolled descent caused by unexpected rupture of oil pipes, ensuring stable descent of the load and personal safety, and preventing damage to equipment.



High-strength forks

The forks are formed in one piece with a thickness of 8mm steel. High strength and small deformation even under heavy loads.

⑤ The battery is fixed at the bottom of the frame

Improved stability.

Battery low voltage protection

Effectively avoid battery over-discharge, ensuring a longer battery life.

⑥ Adjustable balance wheel

Improved stability and maneuverability, suitable for different working scenarios.

High lateral and longitudinal stability

Wider wheelbase and longer axle distance.

Easy & Comfortable



Effortless, easy to operate

Low-mounted longer tiller reduces steering force required.

Low mast static height

Easy to operate in containers and elevators with less than 3.3m lifting height.



Easy to recharge

Built-in charger and an external charging cable storage box for convenient charging.

Longer operating time

Standard 24V/71Ah maintenance-free lead-acid battery, with the option of a larger capacity maintenance-free battery or a lithium battery.



The steering angle is designed to be above 180 degrees

Small turning radius.

Excellent maneuverability

Precise and maneuverable operating, high safety and efficiency.

Reasonable design of the balancing wheel eccentric distance.

Flexible direction commutation.

Optional Configuration

- **Reversing buzzer**
- **24V/100Ah Li-ion**
- **24V/105Ah Lead-acid**

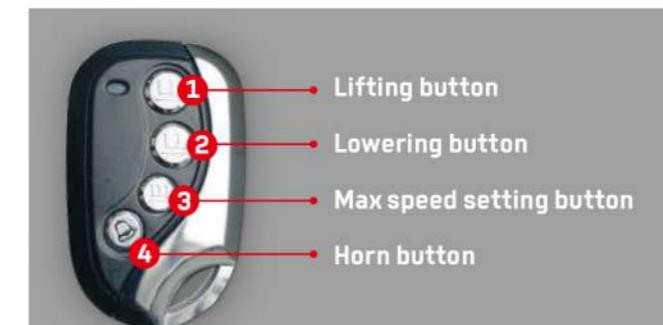
- **Intelligent control**
- **24V/30A chargers(Li-ion)**
- **Free Lift**

Lithium Battery Charger
Charging time: 2-4 hours

- **24V/105Ah Lead-acid**

Only CDD12-WS and CDD12-WS-I are available; Suitable for heights of 2.5M and above only

Unique in the market and very suitable for sorting operations on trucks. With a dedicated remote control device, the operator can control the forks to lift to the appropriate working height and carry out sorting operations, thus avoiding the need to use the handle buttons and bend over to pick up goods, improving operational efficiency and comfort.



With the remote control device, you can easily set the speed suitable for the work, from level 1 speed to level 5 speed. Such speed transitions allow you to move the truck with controlled operation at ease.



WS Electric Pedestrian Stacker Specification

| Distinguishing mark | SHARK | | | | | | | | | | |
|---------------------|---|-------------------------------------|------------|---|------------------------------|---|---------------------|--|------------|--|--|
| | 1.1 Manufacturer | 1.2 Manufacturer's type designation | 1.3 Drive | 1.4 Operator type | 1.5 Load capacity/rated load | | | | | | |
| | | | CDD15-WS | | CDD15-WS-I | | CDD12-WS | | CDD12-WS-I | | |
| | | | Battery | | Battery | | | | | | |
| | 1.6 Load centre distance | | Pedestrian | | Pedestrian | | | | | | |
| | 1.7 Load capacity/rated load | Q | kg | 1500 | | 1200 | | | | | |
| | 1.8 Load distance, centre of drive axle to fork | c | mm | 600 | | 600 | | | | | |
| | 1.9 Wheelbase | x | mm | 800 | | 800 | | | | | |
| | | y | mm | 1210 | | 1210 | | | | | |
| Weight | 2.1 Service weight (without battery) [560 Fork size] | | kg | 529.4 | 529.4 | 528 | 528 | | | | |
| | 2.2 Service weight (with 71Ah battery or 60Ah Li-battery) | | kg | 576.2 | 543.4 | 574.8 | 542 | | | | |
| | 2.3 Service weight (with 89Ah battery) | | kg | 581 | / | 579.6 | / | | | | |
| | 2.4 Axle loading, laden front/rear | | kg | 608.8/1420.6 | 613/1430.4 | 518.4/1209.6 | 522.6/1219.4 | | | | |
| | 2.5 Axle loading, unladen front/rear | | kg | 432.2/144 | 407.4/136 | 431/143.8 | 406.5/135.5 | | | | |
| Tyres, chassis | 3.1 Wheels | | | Polyurethane | | Polyurethane | | | | | |
| | 3.2 Wheel size, front | Ø x width | mm | Ø210x70 | | Ø210x70 | | | | | |
| | 3.3 Wheel size, rear | Ø x width | mm | Ø80x70 | | Ø80x70 | | | | | |
| | 3.4 Additional wheels (dimensions) | Ø x width | mm | Ø115x55 | | Ø115x55 | | | | | |
| | 3.5 Wheels, number front/rear (x = driven wheels) | | | 1x + 1/4 | | 1x + 1/4 | | | | | |
| | 3.6 Tread, front | b10 | mm | 550 | | 550 | | | | | |
| | 3.7 Tread, rear | b11 | mm | 390[560 fork width]/525[680 fork width] | | 390[560 fork width]/525[680 fork width] | | | | | |
| Dimensions | 4.2 Lowered mast height | h1 | mm | 1730 | | 1730 | | | | | |
| | 4.4 Lift height | h3 | mm | 2500 | | 2500 | | | | | |
| | 4.5 Extended mast height | h4 | mm | 2935 | | 2935 | | | | | |
| | 4.9 Height of tiller in driving position, min./max. | h14 | mm | 910/1270 | | 910/1270 | | | | | |
| | 4.15 Height, lowered | h13 | mm | 85±2 | | 85±2 | | | | | |
| | 4.19 Overall length | l1 | mm | 1730[1150 fork length]/1800[1220 fork length] | | 1730[1150 fork length]/1800[1220 fork length] | | | | | |
| | 4.20 Length to face of forks | l2 | mm | 560 | | 560 | | | | | |
| | 4.21 Overall width | b1 | mm | 820 | | 820 | | | | | |
| | 4.22 Fork dimensions | s/e/l | mm | 70x160x1150[1220] | | 70x160x1150[1220] | | | | | |
| | 4.25 Width over forks | b5 | mm | 560/680 | | 560/680 | | | | | |
| Performance data | 4.32 Ground clearance, centre of wheelbase | m2 | mm | 30 | | 30 | | | | | |
| | 4.34.1 Aisle width for pallets 1000 x 1200 crossways | Ast | mm | 2268 | | 2268 | | | | | |
| | 4.34.2 Aisle width for pallets 800 x 1200 lengthways | Ast | mm | 2194 | | 2194 | | | | | |
| | 4.35 Turning radius | Wa | mm | 1425 | | 1425 | | | | | |
| | 5.1 Travel speed, with/without load | | km/h | 4/4.5 | | 4/4.5 | | | | | |
| Electric-engine | 5.2 Lift speed, with/without load | | mm/s | 0-102/0-190 | | 0-123/0-230 | | | | | |
| | 5.3 Lowering speed, with/without load | | mm/s | 30-135/20-200 | | 28-164/26-278 | | | | | |
| | 5.8 Max. gradeability, with/without load | | % | 5/10 | | 5/10 | | | | | |
| Additional Data | 5.10 Service brake | | | Electromagnetic | | Electromagnetic | | | | | |
| | 6.1 Drive motor rating S2 60 min | | kW | 0.75 | | 0.75 | | | | | |
| | 6.2 Lift motor rating at S3 15% | | kW | 2.5 | | 2.5 | | | | | |
| | 6.4 Battery voltage/nominal capacity [K5] | V/Ah | | • 12/71x2 Ø12/89x2 | 24V/60Ah Li-battery | • 12/71x2 Ø12/89x2 | 24V/60Ah Li-battery | | | | |
| | 6.5 Battery weight +/- 5% | kg | | • 23.4x2[71Ah] Ø 25.8x2[89Ah] | 14 | • 23.4x2[71Ah] Ø 25.8x2[89Ah] | 14 | | | | |
| | 6.6 Charger | A | | 10 | 15 | 10 | 15 | | | | |
| | 8.1 Type of drive control | | | DC speed control | | DC speed control | | | | | |
| | 8.4 Sound level at the driver's ear according to EN 12053 | | dB(A) | <75 | | <75 | | | | | |

Note: 1kgs=2.2lbs, 25.4mm=1inch

• standard ○ option

Mast Dimensions

| Mast types | Lift height h3(mm) | Lowered mast height h1(mm) | Free lift height h2(mm) | Extended mast height h4(mm) |
|-------------|--------------------|----------------------------|-------------------------|-----------------------------|
| Duplex Mast | 2000 | 1480 | / | 2435 |
| | 2500 | 1730 | / | 2935 |
| | 3000 | 1980 | / | 3435 |
| | 3300 | 2130 | / | 3735 |
| | 3500 | 2230 | / | 3935 |
| | 4000 | 2550 | / | 4370 |
| 2-Free Mast | 2500 | 1710 | 1300 | 2917 |
| | 3000 | 1960 | 1550 | 3417 |
| | 3300 | 2110 | 1700 | 3717 |
| | 3500 | 2210 | 2130 | 3917 |

2-Free Mast: Only CDD12-WS and CDD12-WS-I are available; Suitable for heights of 2.5M and above only

WS Electric Pedestrian Stacker Specification

| | | | | | | | |
|---------------------|--------|---|------------|-------|-------------------------------------|-------|-------|
| Distinguishing mark | 1.1 | Manufacturer | SHARK | | | | |
| | 1.2 | Manufacturer's type designation | CTD15-WS | | | | |
| | 1.3 | Drive | Battery | | | | |
| | 1.4 | Operator type | Pedestrian | | | | |
| | 1.5 | Load capacity/rated load | Q | kg | 1500 | | |
| | 1.6 | Load centre distance | c | mm | 600 | | |
| | 1.8 | Load distance, centre of drive axle to fork | x | mm | 768 | | |
| | 1.9 | Wheelbase | y | mm | 1218 | | |
| | 2.1 | Service weight (without battery) | | kg | 581.6 | 604.6 | 634.6 |
| | 2.2 | Service weight (with 71Ah battery) | | kg | 628 | 651 | 681 |
| Weight | 2.3 | Service weight (with 89Ah battery) | | kg | 633.2 | 656.2 | 686.2 |
| | 2.4 | Axle loading, laden front/rear | | kg | 645/1506 | | |
| | 2.5 | Axle loading, unladen front/rear | | kg | 488/163 | | |
| | 3.1 | Wheels | | | Polyurethane | | |
| | 3.2 | Wheel size, front | Ø x width | mm | Ø210x70 | | |
| Dimensions | 3.3 | Wheel size, rear | Ø x width | mm | Ø100x64 | | |
| | 3.5 | Wheels, number front/rear (x = driven wheels) | | | 1x + 0 / 2 | | |
| | 3.7 | Tread, rear | b11 | mm | 1060/1200/1340 | | |
| | 4.2 | Lowered mast height | h1 | mm | 1520 | 1770 | 2020 |
| | 4.4 | Lift height | h3 | mm | 2000 | 2500 | 3000 |
| | 4.5 | Extended mast height | h4 | mm | 2520 | 3020 | 3520 |
| | 4.9 | Height of tiller in driving position, min./max. | h14 | mm | 910/1270 | | |
| | 4.15 | Height, lowered | h13 | mm | 60-2 | | |
| | 4.19 | Overall length | l1 | mm | 1698 | | |
| | 4.20 | Length to face of forks | l2 | mm | 628 | | |
| Performance data | 4.21.1 | Overall width across chassis | b1 | mm | 820 | | |
| | 4.21.2 | Overall width across all/Outer width straddle | b2 | mm | 1150/1290/1430 | | |
| | 4.21.5 | Inner width straddle | b14 | mm | 970/1110/1250 | | |
| | 4.22 | Fork dimensions | s/e/l | mm | 40X100X1070[1150/1220] | | |
| | 4.25 | Width over forks | b5 | mm | 200-795 | | |
| | 4.32 | Ground clearance, centre of wheelbase | m2 | mm | 40 | | |
| | 4.34.1 | Aisle width for pallets 1000 x 1200 crossways | Ast | mm | 2290 | | |
| | 4.34.2 | Aisle width for pallets 800 x 1200 lengthways | Ast | mm | 2217 | | |
| | 4.35 | Turning radius | Wa | mm | 1455 | | |
| | 5.1 | Travel speed, with/without load | | km/h | 4/4.5 | | |
| Electric engine | 5.2 | Lift speed, without load | | mm/s | 0-185 | | |
| | 5.3 | Lift speed, with load | | mm/s | 0-101 | | |
| | 5.4 | Lowering speed, without load | | mm/s | 22-208 | | |
| | 5.5 | Lowering speed, with load | | mm/s | 26-137 | | |
| | 5.8 | Max. gradeability, with/without load | | % | 5/10 | | |
| Additional Data | 5.10 | Service brake | | | Electromagnetic | | |
| | 6.1 | Drive motor rating S2 60 min | | kW | 0.75 | | |
| | 6.2 | Lift motor rating at S3 15% | | kW | 2.5 | | |
| | 6.4 | Battery voltage/nominal capacity K5 | | V/Ah | • 12/71x2 o [12/89]x2 | | |
| Electric engine | 6.5 | Battery weight +/- 5% | | kg | • 23.4 x 2[71Ah] / o 25.8 x 2[89Ah] | | |
| | 6.6 | Charger | | A | 10 | | |
| | 8.1 | Type of drive control | | | DC speed control | | |
| Additional Data | 8.4 | Sound level at the driver's ear according to EN 12053 | | dB(A) | <75 | | |

Note: 1kgs=2.2lbs, 25.4mm=1inch

• standard o option

Mast Dimensions

| Mast types | Lift height h3[mm] | Lowered mast height h1[mm] | Free lift height h2[mm] | Extended mast height h4[mm] |
|-------------|--------------------|----------------------------|-------------------------|-----------------------------|
| Duplex Mast | 2000 | 1520 | / | 2520 |
| | 2500 | 1770 | / | 3020 |
| | 3000 | 2020 | / | 3520 |
| | 3300 | 2170 | / | 3820 |
| | 3500 | 2270 | / | 4020 |

