



# PT12Li

NEW!

## Long Tiller Electric Pallet Truck with Lithium battery

The PT12Li Electric Pallet Truck with Lithium battery is the ideal choice for material transportation in short-distance or confined space. As the environmental friendly Lithium battery, it is especially suitable for food, chemical, or pharmacy industries which has high standard of the environment.



## ENVIRONMENT-FRIENDLY FAST CHARGE



- **ERGONOMIC, COMPACT AND SAFE LONG TILLER DESIGN**
- **CORE COMPONENTS FORM TOP QUALITY BRANDS**
- **EASY AND FAST CHARGING FOR CONTINUES AND SAFE OPERATION**

## ADVANTAGES

- Lithium battery pack
- Compact Design for Smallest Turning Radius
- Sideway castors
- Entry Rollers
- Reinforced and Robust Chassis
- Reinforced Battery Cover
- Sideway Battery Replacement
- Long Tiller Design for Ergonomics and Safety
- German AC Drive Unit



### Reinforced Battery Cover

CE-conformed reinforced steel battery cover, protecting the batteries with test of 3kg item dropping from 3m high.



### German AC Drive Unit

Maintenance-free German AC drive unit for high performance, efficiency and stability and at the same time reducing running cost.



### Sideway castors

Sideway castors ensure high driving stability and safety even the floor condition is very bad.

### Reinforced and Robust Chassis

Robust chassis with reinforcement for long service life.

### Entry Rollers

The design of the entry rollers ensures easy entry of the pallet.

## CAN-BUS



### Long Tiller Design for Ergonomics and Safety

Ergonomically designed long tiller allows comfortable and efficient operation, and at the same time safety for the operator by keeping a safe distance.





### ► Compact Design for Smallest Turning Radius

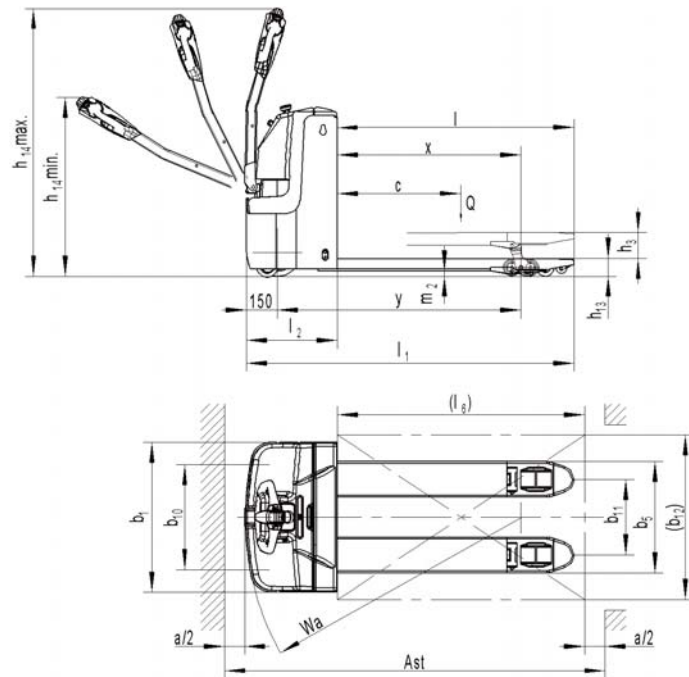
Overall length 1590mm and turning radius 1340mm only, about 100mm less than the similar truck with normal battery, working easily in confined spaces.

### ► Lithium battery pack

Clean, environment-friendly Lithium battery pack, no risk of acid leakage, ideal for food, chemical, or pharmacy industries which has high standard of the environment. At the same time, the fast charge and long life cycle makes it more attractive.

### ► Sideway Battery Replacement

Sideway battery replacement and light battery weight allows easy and fast replacement battery, ideal for multi-shift operations.



## Ttype sheet for industrial truck acc. to VDI 2198 1KG=2.2LB 1INCH=25.4MM

Distinguishing mark	1.2	Manufacturer's type designation		PT12Li
	1.3	Power (battery, diesel, petrol, gas, manual)		Battery
	1.4	Operator type		Pedestrian
	1.5	Load Capacity / rated load	Q(t)	1.2
	1.6	Load centre distance	c(mm)	600
	1.8	Load distance, centre of drive axle to fork	x(mm)	892
Weight	1.9	Wheelbase	Y(mm)	1183
	2.1	Service weight	kg	345
	2.2	Axle loading, laden front/rear	kg	550/960
Tires, chassis	2.3	Axle loading, unladen front/rear	kg	270/70
	3.1	Tires		Polyurethane (PU)
	3.2	Tire size, front	Øx w (mm)	Φ230×70
	3.3	Tire size, rear	Øx w (mm)	Φ84×84
	3.4	Additional wheels(dimensions)	Øx w (mm)	Φ100×40
	3.5	Wheels, number front/rear(x=driven wheels)		1 x+2/4
Dimensions	3.6	Track, front	b10mm	510
	3.7	Track, rear	b11 (mm)	367/512
	4.4	Lift height	h3 (mm)	120
	4.9	Height of tiller in drive position min. / max.	h14mm	850/1385
	4.15	Height, lowered t	h13mm	85
	4.19	Overall length	l1mm	1592
	4.20	Length to face of forks	l2mm	440
	4.21	Overall width	b1mm	729
	4.22	Fork dimensions	s/e/l (mm)	60/173/1150
	4.25	Distance between fork-arms	b5 (mm)	540
	4.32	Ground clearance, centre of wheelbase	m2mm	25
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2040
Performance	4.35	Turning radius	Wa (mm)	1340
	5.1	Travel speed, laden/ unladen	km/h	5,7/ 6,0
	5.2	Lift speed, laden/ unladen	m/s	0,025/0,035
	5.3	Lowering speed, laden/ unladen	m/s	0,035/0,030
	5.8	Max. gradeability, laden/ unladen	%	8/ 15
Motors	5.10	Service brake		Electromagnetic
	6.1	Drive motor rating S2 60min	kW	1,3
	6.2	Lift motor rating at S3 4.5%	kW	0,8
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no		
	6.4	Battery voltage, nominal capacity K5	V/Ah	24/ 50
	6.5	Battery weight (minimum)	kg	20
	6.6	Energy consumption acc: to VDI cycle	KWh/h	0,29
	8.1	Type of drive control		AC- speed control
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	67







# PT 16L / PT 20L / PT 25L

**Electric Pedestrian Power Pallet Truck  
with capacities of 1600/ 2000/ 2500kg**

- Ergonomic, Compact and Safe Long Tiller Design
- Reliable and Strong Chassis
- Powerful, Maintenance Free German AC Power Train
- Core Components from Top Quality Brands

**NEW!**

## INTRODUCTION

The PT16L- 25L series is the first choice for truck loading and unloading as well for universal transportation on short distances with capacities from 1600kg up to 2500kg.

With the short chassis length (PT 16L) the truck is tailored to operate in confined areas.

With its high- quality and state of the art top-brand components and technologies, the truck competes with leading well- known brands in the market.

### PT 16L

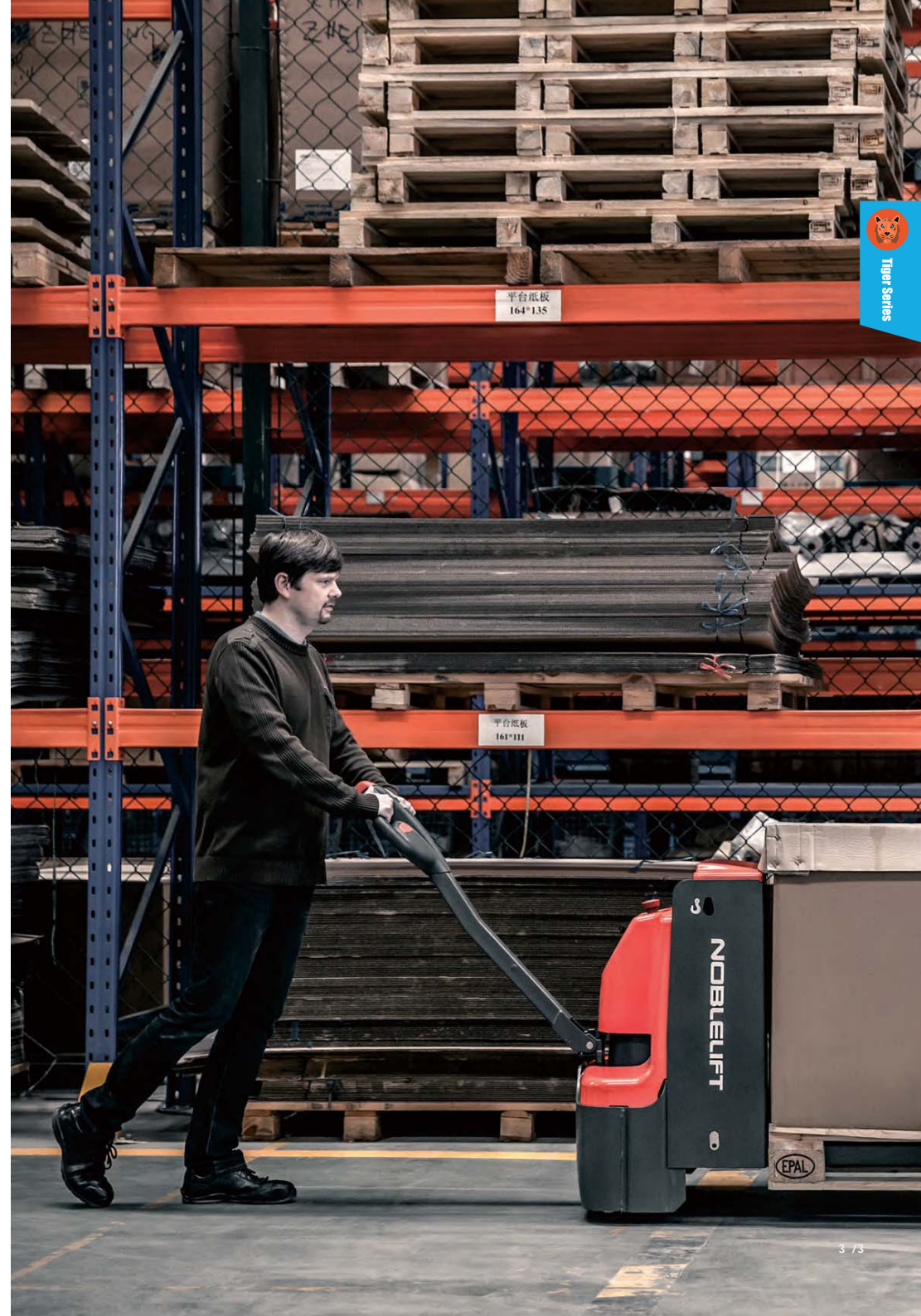


#### Top brand qualified components

Using high quality core components:

- Reliable multifunctional REMA tiller with ergonomic contactless rocker- switches
- Top quality Schabmueller AC drive motor
- Kordel gearbox
- Intorque brake
- Wicke drive wheel
- Zapi controller

The parts used reduce high service costs and give you the performance and reliability which is required for the most demanding harsh loading- and unloading operations.



Tiger Series



### Robust and reliable design

The robust chassis with the strong 8mm thick apron protects the truck and the components against mechanical impacts from the outside.

In combination with the strong metal battery cover, the truck is well- equipped to reduce service work and damages to a minimum.

Dirty floor environments have less influence to the vertical AC motor design as the components and the brake are out of the reach of direct impacts. IP 54 protected controller, safe against dust and splash water.



### German AC drive technology

The powerful German Schabmueller maintenance free AC Drive motor in combination with the German Kordel gearbox, Intorge brake and Wicke drive wheel give best performance, efficiency and reliability to reduce the running costs! Whatever desired, the AC Drive gives always the right response: gentle or fast acceleration.



### Long tiller design for ergonomics and safety



In particular through the long tiller design the operator can always keep a safe distance to the truck during proceeding the work very ergonomically. The design ensures lower operational forces than trucks with a short tiller. The tillers operating height is naturally positioned to ergonomic, operator friendly controlling positions.

### CANBUS technology

The CANBUS technology is due to less wiring more reliable. For maintenance the CANBUS technology makes analysis and adjustments easier so that the downtime is lower than for trucks without CANBUS. Digital signals further makes parts longer lasting than analogue signals.

## CAN-BUS

### Maintenance friendly



The trucks design and the used components are tailored to make service and maintenance easy. All components are easy to reach when removing the main cover only with 2 screws, drive- and castor wheel are easy to exchange without craning the truck.

### Long lasting battery capacities

With the PT-L series for every application the right battery:

- PT 16L with 165 Ah 2VBS battery with very short truck length and maneuverability for restricted operating areas.
- PT 20L with 210 Ah DIN 2PzS battery
- PT 25L with 350 Ah DIN 3PzS battery and as standard with sideways battery exchange for long operations and multi- shifts.

Optional sideways battery exchange compartment for PT20L with 210 Ah battery.



### Various options

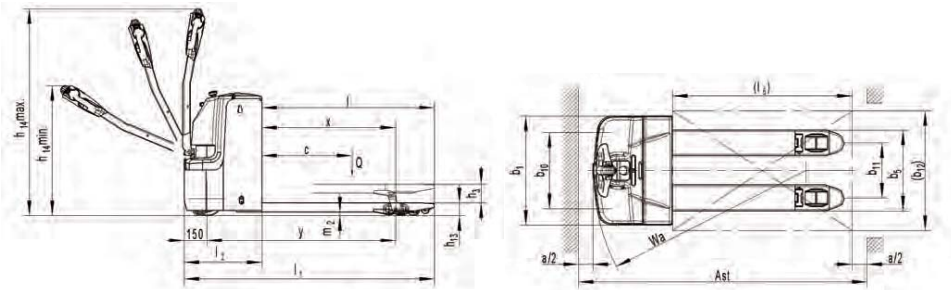
- Load backrest
- Sideways battery exchange
- Different fork-versions on request

Entry rollers as standard.

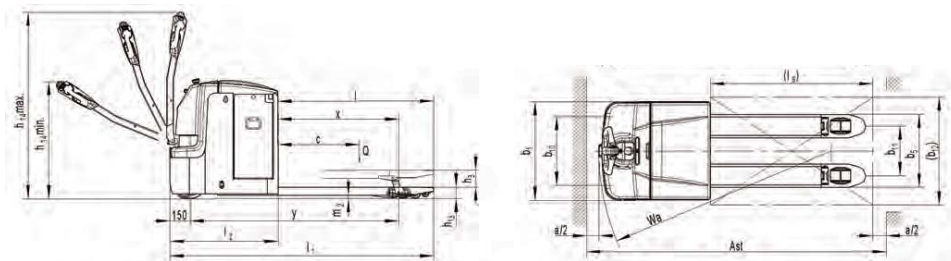


**PT 25L**

## PT 16/20L



## PT 25L



Ttype sheet for industrial truck acc. to VDI 2198 1KG=2.2LB 1INCH=25.4MM

Distinguishing mark	1.2	Manufacturer's type designation		PT 16L	PT 20L	PT 25L
	1.3	Power (battery ,diesel, petrol, gas, manual)			Battery	
	1.4	Operator type			Pedestrian	
	1.5	Load Capacity / rated load	Q(t)	1.6	2.0	2.5
	1.6	Load centre distance	c(mm)		600	
	1.8	Load distance ,centre of drive axle to fork	x(mm)		892	
Weight	1.9	Wheelbase	Y(mm)	1261	1327	1541
	2.1	Service weight	kg	445	535	720
	2.2	Axle loading, laden front/rear	kg	715/1330	855/1680	1040/2200
Tires, chassis	2.3	Axle loading, unladen front/rear	kg	345/100	415/120	540/200
	3.1	Tires		Polyurethane (PU)		
	3.2	Tire size, front	Øx w (mm)	Ø230×70		
	3.3	Tire size, rear	Øx w (mm)	Ø84×84		
	3.4	Additional wheels(dimensions)	Øx w (mm)	Ø100×40		
	3.5	Wheels, number front/rear(x=driven wheels)		1x+2/4		
	3.6	Track, front	b10mm	510		
Dimensions	3.7	Track, rear	b11 (mm)	367/512		
	4.4	Lift height	h3 (mm)	125		
	4.9	Height of tiller in drive position min. / max.	h14mm	800/1335		
	4.15	Height, lowered t	h13mm	85		
	4.19	Overall length	l1mm	1670	1735	1950
	4.20	Length to face of forks	l2mm	520	595	810
	4.21	Overall width	b1mm	729		
	4.22	Fork dimensions	s/e/l (mm)	60/173/1150		
	4.25	Distance between fork-arms	b5 (mm)	540/685		
	4.32	Ground clearance, centre of wheelbase	m2mm	25		
	4.33	Aisle width for pallets 1000X1200 crossways	Ast (mm)	1885	1955	2175
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	1935	2005	2225
	4.35	Turning radius	Wa (mm)	1440	1490	1750
Performance	5.1	Travel speed, laden/ unladen	km/h	5.7/6.0		
	5.2	Lift speed, laden/ unladen	m/s	0.025/0.035	0.022/0.030	0.035/0.045
	5.3	Lowering speed, laden/ unladen	m/s	0.035/0.030	0.035/0.035	0.040/0.040
	5.8	Max. gradeability, laden/ unladen	%	8/15		
	5.10	Service brake		Electromagnetic		
Motors	6.1	Drive motor rating S2 60min	kW	1.3		1.7
	6.2	Lift motor rating at S3 4.5%	kW	0.8		2.2
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no		2VBS	2PzS	3PzS
	6.4	Battery voltage, nominal capacity K5	V/Ah	160	210	350
	6.5	Battery weight (minimum)	kg	150	215	285
	6.6	Energy consumption acc: to VDI cycle	KWh/h	0.44	0.39	0.92
	8.1	Type of drive control		AC-Speed Control		
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	67	69	65





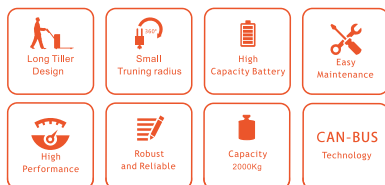


# PT20I



## Noblelift Power Electric Pallet Truck With Mast Lift for Order Picking

The PT 20i is the ideal choice if transportation operations needs to be combined with health friendly order picking operations. The low-lift transportation capacity of max.2000kg is enough to unload delivery lorries and to do picking operations in the warehouse or in the salesroom. The sideways lifting buttons are ergonomically located nearby the picking area.



## DOUBLE LIFTING DESIGN CORE COMPONENTS FORM TOP QUALITY BRANDS

- Initial lifting
- Easy for operation
- Side-way battery replacement
- Capacities for different applications

### ADVANTAGE:

- Power pallet truck with additional health-friendly mast lift
- AC drive system
- Long tiller for easy and ergonomic operations
- Slow-speed button for safe operations in narrow spaces



### Core Components from Top Quality Brands

German KORDEL gear box, INTORQ Brake, WICK drive wheel, Italian ZAPI Controller ensure the high performance, efficiency and stability, at the same time reduce the running cost .



### Robust and Reliable Design

The robust chassis with the strong 8mm thick apron protects the truck and the components against mechanical impacts from the outside. The steel battery cover ensures the battery well protected.



### Static design of the hydraulic system

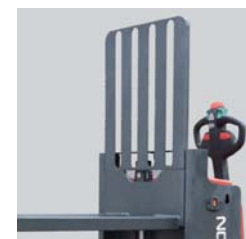
There is no movement of the hydraulic systems during lifting and lowering of the truck, ensures the stability and safety of the hydraulic system .



### Long Tiller Design

Ergonomically designed long tiller allows comfortable and efficient operation, and at the same time safety for the operator by keeping a safe distance.

## CAN-BUS



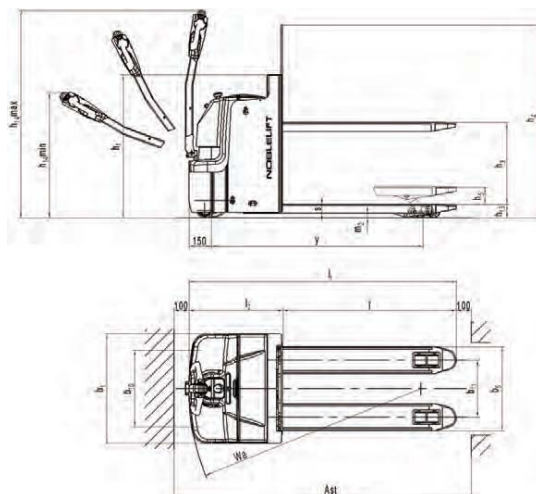
### Initial lifting(double lifting design)

Additional healthy-friendly mast lift height up to 800mm with lift capacity 1000kg, ideal for trailer unloading, short distance material transportation and factory assembly line.





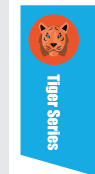
**PT201**



# Type sheet for industrial truck acc. to VDI 2198 1tG=2.2tB 11tNCH=25.4mm

Distinguishing mark	1.2	Manufacturer's type designation		PT 201	
	1.3	Drive		Battery	
	1.4	Operator type		Pedestrian	
	1.5	Load capacity / rated load	Q (t)	2.0	
		Load capacity at mast lift	Q (t)	1.0 <sup>1)</sup>	
		Load capacity at support arm lift	Q (t)	2.0 <sup>1)</sup>	
	1.6	Load center distance	C (mm)	600	
Weight	1.8	Load distance, centre of drive axle to fork	X (mm)	916	
	1.9	Wheelbase	Y (mm)	1386	1557
	2.1	Service weight	kg	656	855
	2.2	Axle loading, laden front/rear	kg	765/1891	845/2010
	2.3	Axle loading, unladen front/ rear	kg	476/180	612/243
	3.1	Tires		Polyurethane (PU)	
	3.2	Tire size, front	Φ x w (mm)	Φ 230 x70	
Tires, chassis	3.3	Tire size, rear	Φ x w (mm)	Φ 80x70	
	3.4	Additional wheels(dimensions)	Φ x w (mm)	Φ 100x40	
	3.5	Wheels, number front/ rear(x=driven wheels)		1x+2/4	
	3.6	Tread, front	b10 (mm)	510	
	3.7	Tread, rear	b11 (mm)	380	
	4.2	Lowered mast height	h1 (mm)	950	855
	4.4	lift	h3 (mm)	550	
Dimensions	4.5	Extended maximal height	h4 (mm)	1717	1558
	4.6	Initial lift	h5 (mm)	120	
	4.9	Height of tiller in drive position min./ max.	h14 (mm)	820/1335	
	4.15	Height, lowered	h13 (mm)	88	
	4.19	Overall length	l1 (mm)	1770	1940
	4.20	Length to face of forks	l2 (mm)	620	790
	4.21	Overall width	b1 (mm)	729	
	4.22	Fork dimensions	s/e/l (mm)	60 / 180 / 1150	
	4.25	Distance between fork- arms	b5 (mm)	560	
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	28	
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	1970	2041
	4.34	Aisle width for pallets 800x1200 lengthwise	Ast (mm)	2020	2091
	4.35	Turning radius	Wa (mm)	1536	1707
Performance	5.1	Travel speed, laden/ unladen	km/h	6,0/ 6,0	
	5.2	Lift speed, laden/ unladen	mm/s	95/ 150	85/140
	5.3	Lowering speed, laden/ unladen	mm/s	90/ 70	80/65
	5.8	Max. gradeability, laden/ unladen	%	8/ 20	
	5.10	Service brake		Electromagnetic	
Motors	6.1	Drive motor rating S2 60min	kW	1.3	1.7
	6.2	Lift motor rating at S3 10%	kW	1.2	2.2
	6.3	Battery acc. to DIN 43531/ 35/ 36 A, B, C, no		No, 2VBS	No, 3VBS
	6.4	Battery voltage, nominal capacity K5	V/Ah	24/ 160	24/ 210
	6.5	Battery weight	kg	150	185
	6.6	Energy consumption acc. to VDI cycle	kWh/h	1.0	
Addition data	8.1	Type of drive control		AC- speed control	
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	<70	

1) in double-deck operation: mast lift 1.0t., support arm lift 1.0t





# PT20D

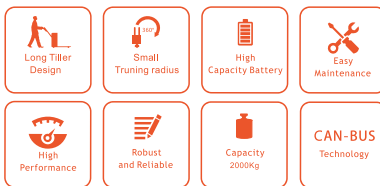
**NEW!**

## INTRODUCTION

The Multi-functional Truck bridges the electric pallet truck and stacker.

The PT20D Series is a multi-functional truck when it comes to the handling of materials by combining the features of a pedestrian pallet truck and stacker in one truck.

It handles not only the transporting of the goods horizontally but also handles loading and unloading HGVs (Heavy goods vehicle) and stacking of pallets with max. lift height up to 2500 mm, what's more, with its double lifting function, it is able to lift two Euro pallets at the same time. All operations can therefore be performed twice as quickly in comparison with a traditional pedestrian pallet truck or stacker. The PT20D can carry 2000 kg when used as a pallet truck, 1000 kg with the forks raised or 2 x 1000 kg in double-deck operation.



## ADVANTAGE:

- Power pallet truck with additional health-friendly mast lift
- AC drive system
- Long tiller for easy and ergonomic operations
- Double-lift with max. lift height up to 1600/2000/2500mm
- Core components from top quality brands
- Proportional lifting and lowering for accurate control of lift heights



## CAN-BUS



### Long Tiller Design

Ergonomically designed long tiller allows comfortable and efficient operation, and at the same time safety for the operator by keeping a safe distance.



### Sideway battery exchange

Standard powerful 210Ah battery with battery sideway battery replacement for easy battery replacement, maintenance and multi-shift operation.



### Double lifting design

With its double lifting function, the efficiency is doubled than the traditional pedestrian pallet truck or stacker. The raising support arms with bigger ground clearance also contribute to safe travel, for instance on thresholds, ramps and uneven floors. And with its low overall height, it comes with excellent view of operation.



### Robust and Reliable Design

The robust chassis with the strong 8mm thick apron protects the truck and the components against mechanical impacts from the outside. The steel battery cover ensures the battery well protected.



### Side switch

The standard equipped sideways located lifting and lowering buttons makes the lifting and lowering of the goods much easier and safer when the operator need to monitor the height closely from the side.



### Convenient Maintenance

To easier the maintenance has been considered during the vehicle design and parts selection. For example, all the parts to be within arms reach after removing the enclosure which fixed by one piece of screw only, and the Driving Wheels and Steering Wheels could be changed easily and no need to hoist the whole vehicle.







#### Core Components from top Quality Brands

German KORDEL gear box, INTORQ Brake, WICK drive wheel, Italian ZAPI Controller ensure the high performance, efficiency and stability, at the same time reduce the running cost .



#### Static design of the hydraulic system

There is no movement of the hydraulic systems during lifting and lowering of the truck, ensures the stability and safety of the hydraulic system .

## Electronic proportional lifting and lowering

The electronically controlled proportional lifting system ensures accurate positioning and stacking operations at every lifting height.

In specific with high masts the electronic controlled proportional lifting performs at its best.

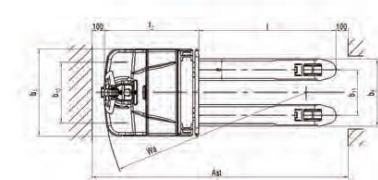
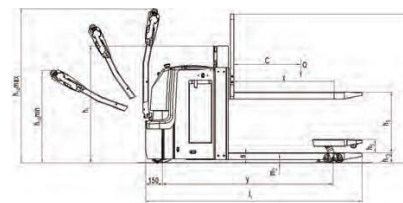
**PT20D**



### Technical data sheet for industrial truck acc. to VDI 2198

Distinguishing mark	1.1	Brand	Noblelift		
	1.2	Manufacturer' type designation	PT 20D		
1.3	Drive(electric,diesel,petrol,gas,main electric)	Operator type	Battery		
			Pedestrian		
1.5	Load capacity / rated load	Q ( t )	2.0		
			1.0 <sup>1)</sup>		
			2.0 <sup>1)</sup>		
			000		
1.6	Load capacity at mast lift	Q ( t )	000		
			916		
1.8	Load center distance	C ( mm )	000		
			916		
1.9	Load distance ,centre of drive axle to fork	X ( mm )	000		
			916		
2.1	Wheelbase	Y ( mm )	1532		
			1532		
Weight	Service weight	kg	990	1010	1060
			880/2110	890/2120	925/2135
			648/342	658/352	695/365
Tires/Chassis	Tires	Polyurethane (PU)	1178		
			1378		
			1233		
			1400		
			1800		
			2300		
			3475		
Dimensions	Lowered mast height	h1 ( mm )	1178		
			1378		
			1233		
			1400		
			1800		
			2300		
			3475		
			120		
			800/1335		
			88		
			1940		
			1955		
			790		
			805		
			729		
			60 / 180 / 1150		
Performance data	Travel speed, laden/ unladen	km/h	6.0/6.0		
			85/140		
			80/65		
			8/ 20		
			Electromagnetic		
			1.3		
			2.2		
			No, 3VBS		
			24/ 210		
			185		
Electric- motor	Energy consumption acc. to VDI cycle	kWh/h	1.0		
			AC-speed control		
			<70		
			<70		
Additional data	Type of drive control	dB(A)	AC-speed control		
			<70		
8.4	Sound level at driver' s ear acc. to EN 12053	dB(A)	AC-speed control		
			<70		

1) in double-deck operation: mast lift 1.0t, support arm lift 1.0t





# PS 12L / PS 16L / PS 20L

## Electric Pedestrian Stacker with capacities of 1200/ 1600/ 2000kg

- Ergonomic, Compact and Safe Long Tiller Design
- Precise Lifting and Lowering with Full Proportional Hydraulic System
- Powerful, Maintenance Free German AC Power Train
- Core Components from Top Quality Brands
- 4 Wheel Structure for Stability

### INTRODUCTION

The PS 12- 20L series is tailored to most pedestrian controlled stacking operations with capacities from 1200kg up to 2000kg.

With the long mounted tiller the operator keeps safe and ergonomic distance to perform his work.

Due to the gentle operating full proportional lifting system stacking operations becomes more safer and quicker.

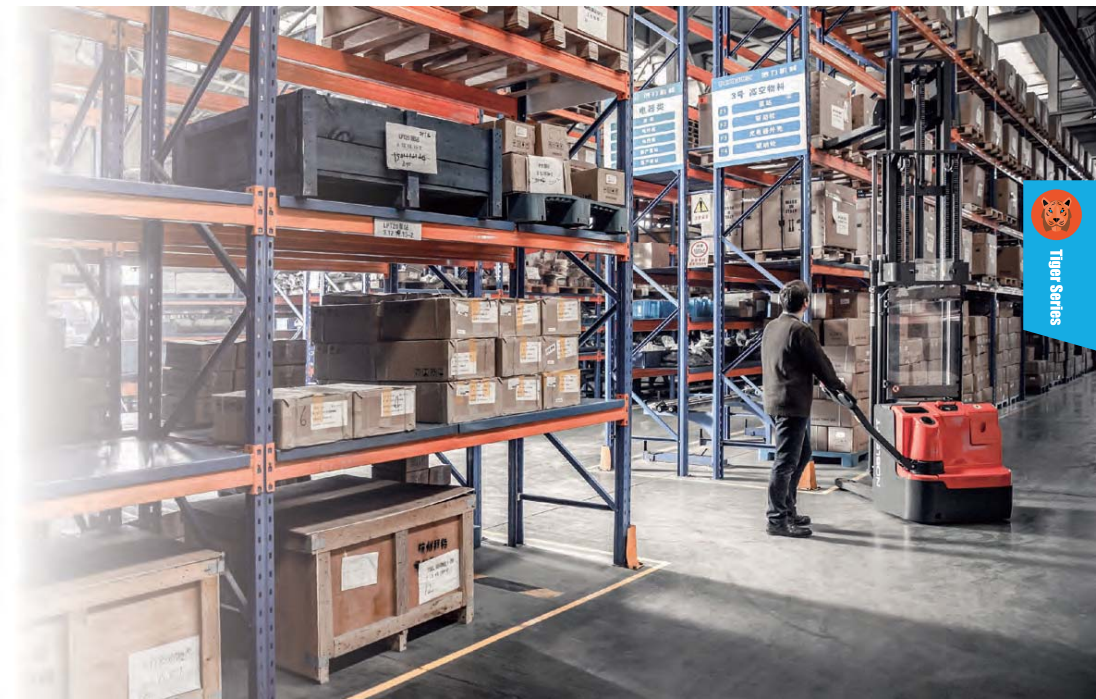
With the high- quality and state of the art top-brand components and technologies, the truck competes with leading well- known brands in the market.

#### Top brand qualified components

Using high quality core components:

- Reliable multifunctional REMA tiller with ergonomic contact less rocker- switches
- Top quality Schabmueller AC drive motor
- Kordel gearbox
- HPI hydraulic power pack
- Zapi controller
- Intorque brake
- Wicke drive wheel

The used parts reduce high service costs and give you the performance and reliability which is required for the demanding stacking operations.



#### Long tiller design for ergonomics and safety

In particular through the long tiller design the operator can always keep a safe distance to the truck during proceeding the work very ergonomically.

The design ensures lower operational forces than trucks with a short tiller.

The tillers operating height is naturally positioned to ergonomic, operator friendly controlling positions.

Specifically staking operations becomes more ergonomically and quicker due to the safe distance and better view to the forks. The 4 wheel design with the sideways long mounted tiller gives particular an exact and perfect view to the forks.

#### Electronic proportional lifting and lowering

The electronically controlled proportional lifting system ensures accurate positioning and stacking operations at every lifting height.

In specific with high masts the electronic controlled proportional lifting performs at its best.



### CAN-BUS

#### CANBUS technology

The CANBUS technology is due to less wiring more reliable.

For maintenance the CANBUS technology makes analysis and adjustments easier so that the downtime is lower than for trucks without CANBUS.

Digital signals further makes parts longer lasting than analogue signals.





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#### Robust and Reliable Design

The robust chassis with the strong 8mm thick apron protects the truck and the components against mechanical impacts from the outside.

In combination with the metal battery cover, the truck is well- equipped to reduce maintenance work and damages to a minimum.

Dirty floor environments have less influence to the vertical AC motor design as the components and the brake are out of the reach of direct impacts.

IP 54 protected controller, safe against dust and splash water.



#### German AC drive technology

The powerful German Schabmueller maintenance free AC Drive motor in combination with the German Kordel gearbox, Intorqe brake and Wicke drive wheel give best performance, efficiency and reliability to reduce the running costs!

Whether smooth or fast acceleration is applied, the AC Drive gives always the right and direct response.



#### Maintenance friendly

The trucks design and the used components are tailored to make service and maintenance easy. All components are easy to reach when removing the main cover only with 2 screws. The drive wheel and the castor wheel are easy to exchange without craning the truck.



#### For every application the right battery capacity

With the PS-L series for every truck the right battery:

- PS 12L with 180 Ah 2VBS battery for short truck length, good maneuverability and for operating restricted areas.
- PS 16L with 270 Ah 3VBS battery
- PS 20L with 350 AH DIN 3PzS battery for long operations and multi- shifts.



Optional sideways battery exchange compartment for PT20L with 210 Ah battery.

#### Options

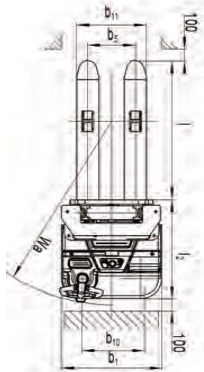
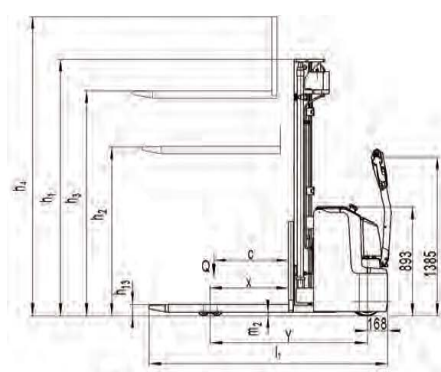
- Various mast versions
- Load backrest
- Sideways battery exchange for PS 16L and PS 20L

PS 20L





Designation	Lowered mast height h1(mm)	Free Lift height h2(mm)	Lift height h3(mm)	Extended mast height h4(mm)	Lift+fork height h3+h13(mm)
<b>PS 12L</b>					
<b>Two stage mast</b>	1958	---	2830	3380	2920
	2108	---	3130	3680	3220
	2308	---	3530	4080	3620
<b>Two stage mast FFL (Full-Free-Lift)</b>	1958	1410	2830	3380	2920
	2108	1560	3130	3680	3220
	2308	1760	3530	4080	3620
<b>PS 16L</b>					
<b>Two stage mast</b>	1958	---	2830	3380	2920
	2108	---	3130	3680	3220
	2308	---	3530	4080	3620
<b>Two stage mast FFL (Full-Free-Lift)</b>	1958	1410	2830	3380	2920
	2108	1560	3130	3680	3220
	2308	1760	3530	4080	3620
<b>Three stage mast</b>	2008	---	4230	4780	4320
	2108	---	4530	5080	4620
<b>Three stage mast FFL (Full-Free-Lift)</b>	1908	1320	3930	4480	4020
	2008	1420	4230	4780	4320
	2108	1520	4530	5080	4620
	2343	1756	5230	5780	5320
<b>PS 20L</b>					
<b>Two stage mast</b>	2078	---	2830	3500	2920
	2228	---	3130	3800	3220
	2428	---	3530	4200	3620
<b>Two stage mast FFL (Full-Free-Lift)</b>	1978	1310	2630	3300	2720
	2078	1410	2830	3500	2920
	2228	1560	3130	3800	3220
	2428	1760	3530	4200	3620
<b>Three stage mast</b>	2128	---	4230	4900	4320
	2228	---	4530	5200	4620
<b>Three stage mast FFL (Full-Free-Lift)</b>	1978	1310	3930	4600	4020
	2128	1420	4230	4900	4320
	2228	1520	4530	5200	4620



Type sheet for industrial truck acc. to VDI 2198 1KG=2.2LB 1INCH=25.4MM					
<b>Distinguishing mark</b>	1.2	Manufacturer's type designation		PS 12L(3600)	PS 16L(4600)
	1.3	Power (battery ,diesel, petrol, gas, manual)			Battery
	1.4	Operator type			Pedestrian
	1.5	Load Capacity / rated load	Q(t)	1.2	1.6
	1.6	Load centre distance	c(mm)	600	600
	1.8	Load distance, centre of drive axle to fork	x(mm)	647	647
<b>Weight</b>	1.9	Wheelbase	Y(mm)	1248	1293
	2.1	Service weight	kg	1007	1340
	2.2	Axle loading, laden front/rear	kg	684/1523	930/2010
<b>Tires, chassis</b>	2.3	Axle loading, unladen front/rear	kg	610/397	850/490
	3.1	Tires		Polyurethane (PU)	
	3.2	Tire size, front	Øx w (mm)	Ø230×70	
	3.3	Tire size, rear	Øx w (mm)	Ø85×75	
	3.4	Additional wheels(dimensions)	Øx w (mm)	Ø150×54	
	3.5	Wheels, number front/rear(x=driven wheels)		1x+1/4	
	3.6	Track, front	b10mm	522	
<b>Dimensions</b>	3.7	Track, rear	b11 (mm)	390/505	
	4.2	Lowered mast height	h1 (mm)	2308	2108
	4.3	Free Lift height	h2 (mm)	1760	1520
	4.4	Lift height	h3 (mm)	3600	4600
	4.5	Extended mast height	h4 (mm)	4088	5088
	4.9	Height of tiller in drive position min. / max.	h14mm	850/1385	
	4.15	Height, lowered t	h13mm	90	
	4.19	Overall length	l1mm	1919	1964
	4.20	Length to face of forks	l2mm	769	814
	4.21	Overall width	b1mm	820	
	4.22	Fork dimensions	s/e/l (mm)	60/180/1150	
	4.25	Distance between fork-arms	b5 (mm)	570/685	
	4.32	Ground clearance, centre of wheelbase	m2mm	28	28
	4.33	Aisle width for pallets 1000X1200 crossways	Ast (mm)	2336	2406
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2456	2393
<b>Performance data</b>	4.35	Turning radius	Wa (mm)	1440	1510
	5.1	Travel speed, laden/ unladen	km/h	6.0/6.0	5.7/6.0
	5.2	Lift speed, laden/ unladen	m/s	0.10/0.17	0.13/0.20
	5.3	Lowering speed, laden/ unladen	m/s	0.11/0.11	0.20/0.14
	5.8	Max. gradeability, laden/ unladen	%	6/12	6/12
	5.10	Service brake		Electromagnetic	
<b>Electric- engine</b>	6.1	Drive motor rating S2 60min	kW	1.3	1.7
	6.2	Lift motor rating at S3 4.5%	kW	1.5	3.2
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no	2VBS	3VBS	3PZS
	6.4	Battery voltage, nominal capacity K5	V/Ah	24/180	24/270
	6.5	Battery weight	kg	175	230
	6.6	Energy consumption acc: to VDI cycle		0.95	1.59
<b>Additional data</b>	8.1	Type of drive control		AC-speed control	
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	<70	





# PS16L SL/PS20L SL

## Straddle-leg Electric Pedestrian Stacker with capacities of 1600/2000kg

- Ergonomic, Compact and Safe Long Tiller Design
- Precise Lifting and Lowering with Full Proportional Hydraulic System
- Powerful, Maintenance Free German AC Power Train
- Core Components from Top Quality Brands
- 4 Wheel Structure for Stability

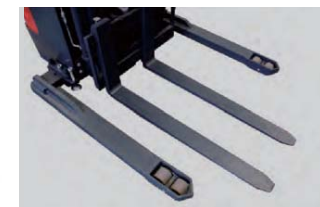


### PS16L SL



#### INTRODUCTION

- The PS16-20L SL series is tailored to most pedestrian controlled stacking operations with capacities form 1600kg up to 2000kg.
- With the long mounted tiller the operator keeps safe and ergonomic distance to perform his work.
- Due to the gentle operating full proportional lifting system stacking operations becomes more safer and quicker.
- With the high- quality and state of the art top-brand components and technologies, the truck competes with leading well- known brands in the market.



#### Straddle leg

Adjustable straddle leg design, suitable for diverse pallet sizes and more stability



#### For every application the right battery capacity

with the PS-L SL series for every truck the right battery:

PS 16L SL with 270 Ah 3VBS battery  
PS 20L SL with 350 Ah DIN 3PzS battery for long operations and multi-shifts.

#### Electronic proportional lifting and lowering

The electronically controlled proportional lifting system ensures accurate positioning and stacking operations at every lifting height.

In specific with high masts the electronic controlled proportional lifting performs at its best.



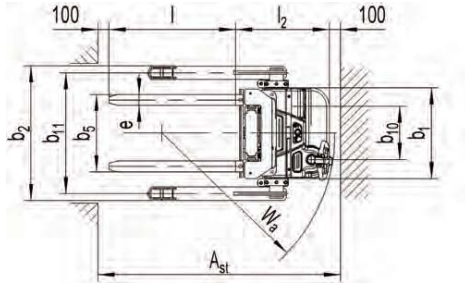
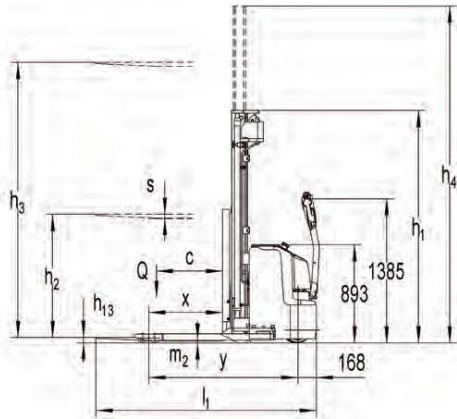
#### Long tiller design for ergonomics and safety

In particular through the long tiller design the operator can always keep a safe distance to the truck during proceeding the work very ergonomically. The design ensures lower operational forces than trucks with a short tiller. The tillers operating height is naturally positioned to ergonomic, operator friendly controlling positions.

Specifically staking operations becomes more ergonomically and quicker due to the safe distance and better view to the forks. The 4 wheel design with the sideways long mounted tiller gives particular an exact and perfect view to the forks.



Designation	Lowered mast height h1(mm)	Free Lift height h2(mm)	Lift height h3(mm)	Extended mast height h4(mm)	Lift+fork height h3+h13(mm)
PS16L SL					
Two stage mast	1958	--	2830	3380	2920
	2108	--	3130	3680	3220
	2308	--	3530	4080	3620
Two stage mast FFL (Full-Free-Lift)	1958	1410	2830	3380	2920
	2108	1560	3130	3680	3220
	2308	1760	3530	4080	3620
Three stage mast	2008	--	4230	4780	4320
	2108	--	4530	5080	4620
Three stage mast FFL (Full-Free-Lift)	1908	1320	3930	4480	4020
	2008	1420	4230	4780	4320
	2108	1520	4530	5080	4620
	2343	1756	5230	5780	5320
PS20L SL					
Two stage mast	2078	--	2830	3500	2920
	2228	--	3130	3800	3220
	2428	--	3530	4200	3620
Two stage mast FFL (Full-Free-Lift)	1978	1310	2630	3300	2720
	2078	1410	2830	3500	2920
	2228	1560	3130	3800	3220
	2428	1760	3530	4200	3620
Three stage mast	2128	--	4230	4900	4320
	2228	--	4530	5200	4620
Three stage mast FFL (Full-Free-Lift)	1978	1310	3930	4600	4020
	2128	1420	4230	4900	4320
	2228	1520	4530	5200	4620



Type sheet for industrial truck acc. to VDI 2198 1KG=2.2LB 1INCH=25.4MM					
Distinguishing mark	1.2	Manufacturer's type designation		PS 16L SL(4600)	PS 20L SL(4600)
	1.3	Power (battery ,diesel, petrol, gas, manual)		Battery	
	1.4	Operator type		Pedestrian	
	1.5	Load Capacity / rated load	Q(t)	1.6	2.0
	1.6	Load centre distance	c(mm)		600
	1.8	Load distance ,centre of drive axle to fork	x(mm)	692	673
	1.9	Wheelbase	Y(mm)	1378	1490
Weight	2.1	Service weight	kg	1460	1700
	2.2	Axle loading, laden front/rear	kg	1000/2060	1100/2600
	2.3	Axle loading, unladen front/rear	kg	1020/440	1010/690
Tires, chassis	3.1	Tires		Polyurethane (PU)	
	3.2	Tire size, front	Øx w (mm)	Φ230×75	
	3.3	Tire size, rear	Øx w (mm)	Φ85×75	
	3.4	Additional wheels(dimensions)	Øx w (mm)	Φ150×54	
	3.5	Wheels, number front/rear(x=driven wheels)		1x+1/4	
	3.6	Track, front	b10mm	522	
	3.7	Track, rear	b11 (mm)	1095-1395	
Dimensions	4.2	Lowered mast height	h1 (mm)	2108	2228
	4.3	Free Lift height	h2 (mm)	1520	1520
	4.4	Lift height	h3 (mm)	4530	4530
	4.5	Extended mast height	h4 (mm)	5088	5208
	4.9	Height of tiller in drive position min./ max.	h14mm		850/1385
	4.15	Height, lowered t	h13mm		50
	4.19	Overall length	l1mm	2004	2135
	4.20	Length to face of forks	l2mm	854	985
	4.21	Overall width	b1mm		820(1220-1520)
	4.22	Fork dimensions	s/e/l (mm)		40x120x1150
	4.25	Distance between fork-arms	b5 (mm)		255-730
	4.32	Ground clearance, centre of wheelbase	m2mm		33
	4.33	Aisle width for pallets 1000X1200 crossways	Ast (mm)	2555	2674
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2527	2652
	4.35	Turning radius	Wa (mm)	1680	1790
Performance data	5.1	Travel speed, laden/ unladen	km/h	5.7/6.0	5.4/6.0
	5.2	Lift speed, laden/ unladen	m/s		0.13/0.20
	5.3	Lowering speed, laden/ unladen	m/s		0.20/0.14
	5.8	Max. gradeability, laden/ unladen	%	6/12	6/10
	5.10	Service brake			Electromagnetic
Electric- engine	6.1	Drive motor rating S2 60min	kW	1.3	1.7
	6.2	Lift motor rating at S3 4.5%	kW		3.2
	6.3	Battery acc. to DIN 43531/35/36 A, B, C, no		3VB8	3PZ8
	6.4	Battery voltage, nominal capacity K5	V/Ah	24/270	24/350
	6.5	Battery weighi	kg	230	288
	6.6	Energy consumption acc: to VDI cycle	kWh/h	1.59	1.79
Additional data	8.1	Type of drive control		AC- speed control	
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	69	

