

NOBLELIFT



PRS-200

High speed stand-on pallet truck

NOBLELIFT INTELLIGENT EQUIPMENT CO., LTD.

A Perfect Fit

The Noblelift PRS-200 is the perfect fit because it serves both the operator and the operation. It's a compact and durable machine that can perform the tough tasks without sacrificing essential comfort and control for the operator. Plus, the PRS-200 is equipped with a four-point truck suspension to maintain balance and achieve optimal maneuverability.

Main features:

- ▶ Capacity 2000kg/4500 lbs.
- ▶ Speed 10/12 km/h (6.2/7.5 mph).
- ▶ Battery: lead-acid 450Ah or Lithium 300Ah.
- ▶ Forks 1150-2400 mm (45,2" – 94,5") length, customization is possible.
- ▶ Pull-rod structure, adjustment from top.
- ▶ Designed with compliance to CE and ANSI regulation.



Operator's position

The spacious platform allows comfortable position of operators with various anthropometry parameters thanks to various adjustments. The operators platform has suspension system, which will absorb the shocks caused by uneven working surfaces, which is important while operating on dock levelers. The thick rubber floor mat makes the vibration resistance performance even better.



The height of the backrest for operator is electrically adjustable by means of the button located on control panel. The angle of seat support is manually adjustable (default configuration) or electrically adjustable (option) at the same time the seat support is linked with the backrest and can be adjusted for operators of different height too.



The elbow support has manual adjustment of angle, allowing operators of different height having different length of arms to find comfortable position which would support them during work and keep the solid body position.



The control joystick with perfect ergonomics is used as operator hold position and located under right hand, the driving, lifting/lowering operations are controlled by thumb, the horn function is controlled by a finger without interruption of driving functions and change of grip position.



The steering wheel is located under the left hand, giving another solid support position for an operator, which is important for high speed trucks.



The OPC (operator presence control) switch is made in a form of pedal located on the left side of the operators platform, making sure that feet of the operator are safely located within the footprint of the chassis during driving.



Great observation of the forks from operator's working position thanks to ergonomically designed chassis for the visual control of loading operations.

Screen and access panel

The colored LCD screen, located in front of operator, allows to control major truck parameters, like speed, level of battery charge, position of the steering wheel, currently active speed driving mode, status of electrical systems of the truck (traction, hydraulic and lithium battery) and amount of working hours.

The PIN code panel supports access by passwords or by RFID cards. There are three programmable passwords and three types of RFID cards to provide access according to one of the speed modes, allowing employers or related managers to control speed settings of the trucks and limit them based on various conditions.

The system supports three separated speed driving modes, which have corresponding color coding on the screen for easier recognition by operators clearly showing the limits:



- ▶ The **E mode (ECO)** has adjustable speed limit with default maximum speed value limited to **6 km/h**. This speed mode is suitable for non-experienced operators and environments with confined operating conditions.
- ▶ The **S mode (Standard)** has adjustable speed limit with default maximum speed value limited to **10 km/h**. This speed mode is suitable for the majority of application scenarios.
- ▶ The **H mode (High performance)** removes all system limitation and allows to have the full maximum speed of **12 km/h**. This mode is suitable for large warehouse facilities with long transportation distances for efficient operations.

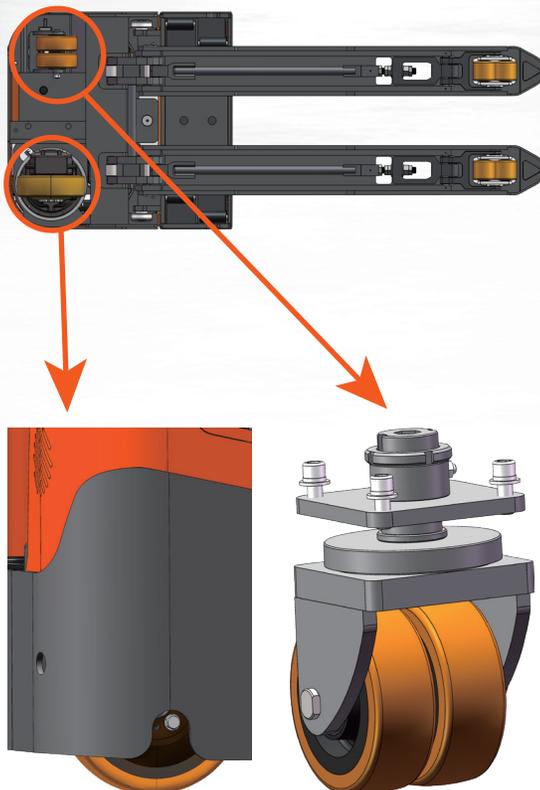
Steering as “natural flow”

The steering of high speed trucks is extremely important as it directly affects the safety of operators, stability of the equipment and influence the operation comfort.

The steering wheel rotation mechanism has integrated steering damper, allowing to precisely control the steering force and excluding the accidental rotation input from operators, especially when overcoming some obstacles.

The steering system of PRS-200 has 10 steps of speed reduction fully programmable depending on the different steering angle. Such kind of approach allow to customize the steering behavior of the truck to ensure smoothness and operation comfort, the operator is not experiencing excessive destabilizing forces while cornering and feel the steering process as “natural flow”

Moreover, the linkage of steering wheel with the steering angle is not proportional having less sensitivity on small angles out of neutral position with increasing sensitivity for more aggressive turns, making the steering safe and predictable on high and low driving speed without necessity to focus on maintain the selected driving path, especially on full speed. All comes naturally.



Wheel configuration

The drive wheel of the truck is located on the right side, under the operators backrest, the dimensions of the wheel is $\text{Ø}250 \times 80$ mm. The access for tools for its replacement is possible from the side of the truck which simplifies the maintenance procedure.

The support wheel is having paired structure with two wheels $\text{Ø}150 \times 54$ mm located on the same axle, allowing easier direction change with lower wear of wheels thanks to mutual counter rotation. At the same time this structure securely supports the truck on uneven floors and while operating on the dock levelers.

The side wheel system can be easily adjusted by means of regulation screw, which allows to ensure the levelness of the truck while PU wheels and tires will not be completely worn out making full use of the available thickness for PU layers.

The fork rollers may have either tandem or single roller configuration depending on required application conditions or type of used pallets on different markets. The rollers are having side protection preventing packing materials wrapping around axles.

Forks

The extremely robust fork of the truck using the pull rod structure, which allows the various and simple customizations to make truck suitable for operation needs of end users: the customers are flexible to select needed fork spread and fork lengths according to their application and if the required specification is not available in standard offer, the customization is fast and simple.

The use of pull rods in combination of extreme reinforcements by solid steel allows to exclude the deformation (flexing) of forks, even when long forks are loaded incorrectly maintaining the load center distance. While the adjustment of the pull rods from the top allows to fine tune the truck without necessity of its lifting.

The links of pull rods are connected with torsion bar, improving the rigidity of the truck when loaded with shifted loads and goods not correctly placed on pallets. While the guiding rollers with side rollers in the lifting structure minimizing the gaps while ensuring the smooth operation.



Batteries

The part of chassis combining forks and battery compartment can be easily attached to the driving end of the truck, which delivers flexibility to dealers and distributors allowing to store some special fork versions in stock and quickly replace the standard forks on trucks in stock to satisfy the requests of end users in a shortest possible time.

The default configuration for battery side extraction allows removing from both sides, thanks to special battery holding system, allowing to secure the battery in the compartment being ready to remove in either of direction within seconds. The steel cover of battery compartment secures battery components and power connector from possible impacts in operations.



Identification			
1.2	Manufacturer's type designation		PRS-200
1.3	Drive: electric (battery type, mains, ...), diesel, petrol, fuel gas		Battery
1.4	Operation		Standing
1.5	Load Capacity / rated load	Q (t)	2.0
1.6	Load centre distance	c (mm)	600
1.8	Load distance	x (mm)	965
1.9	Wheelbase	y (mm)	1631
Weights			
2.1	Net weight without battery	kg	744
2.2	Axle loading, laden front/rear	kg	1941/1139
2.3	Axle loading, unladen front/rear	kg	307/773
Wheels, Chassis			
3.1	Tires		PU
3.2	Tire size, front	Øx w (mm)	Ø 250×80
3.3	Tire size, rear	Øx w (mm)	Ø 82×70
3.4	Additional wheels(dimensions)	Øx w (mm)	Ø 150×54
3.5	Wheels,number front/rear(x=driven wheels)		1x +2/ 4
3.6	Tread, front	b10 (mm)	496
3.7	Tread, rear	b11 (mm)	360
Basic Dimensions			
4.4	Lift	h3 (mm)	125
4.15	Height, lowered	h13 (mm)	85
4.19	Overall length	l1 (mm)	1976
4.20	Length to face of forks	l2 (mm)	826
4.21	Overall width	b1 (mm)	790
4.22	Fork dimensions	s/e/l (mm)	60 / 180 / 1150
4.25	Width across forks	b5 (mm)	540
4.32	Ground clearance, centre of wheelbase	m2 (mm)	25
4.34	Aisle width for pallets 800×1200 lengthways	Ast (mm)	2471
4.35	Turning radius	Wa (mm)	1807
4.43	Step height	h7 (mm)	295
Performance Data			
5.1	Travel speed, laden/ unladen	km/h	10/12
5.2	Lift speed, laden/ unladen	m/s	0.027/0.035
5.3	Lowering speed, laden/ unladen	m/s	0.042 / 0.027
5.8	Max. gradeability, laden/ unladen	%	10 / 24
5.10	Service brake		Electromagnetic Braking
E-Motor			
6.1	Drive motor rating S2 60min	kW	2.5
6.2	Lift motor rating at S3 10%	kW	2.2
6.3	Battery acc. to DIN 43531/ 35/ 36 A, B, C, no		No
6.4	Battery voltage/nominal capacity (Lithium)	V / Ah	24 / 450 (24/300)
6.5	Battery weight (Lithium)	kg	366 (135)
6.6	Energy consumption acc. to VDI cycle	kWh/h	0.4
Other Details			
8.1	Type of drive control		DC type

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