

# PS16/20NW

## NW Series Electric Pallet Stacker

**Suspension system**

**5-wheel structural design**

**More adaptable to complex ground**

Equipped with driving wheel floating technology, PS XX NW is more adaptable to complex ground and not easy to slip. The fixed balance wheel on both side enhances the stability and passability of the truck.

Driving wheel with pressure adjustable structure, is more practical for different application scenarios and vehicle weights.

Driving wheel floating technology, combined with foldable platform floating structure, makes the truck higher effective in shock absorption and more comfortable in operation.



## LiFeP04 battery



Charger 24V/80Ah  **2.5Hr**  24V 200Ah

All Li-ion batteries are equipped with on-board Battery Management System (BMS), which provides mandatory control of all important parameters of the battery during charging and operation. With this control, the safety of Li-ion battery during the whole life-cycle is guaranteed. The Li-ion batteries are certified according to international safety transportation (by sea and by air) and operation standards. The BMS communicates with control system of the truck via CAN, the support of the CAN protocols allows to monitor the condition of the battery and make its diagnosis with help of special software which is available for our partners.



High efficiency of the truck can be guaranteed under the condition of multi-shift operations. Lithium battery can be selected. Lithium battery features in fast charging, maintenance-free, environmental protection and intelligent display functions. Besides, the cost is very low from the perspective of long-term ownership and maintenance, and work efficiency is improved.

The multi-function and flexible PS XX NW Series is the ideal choice for stacking operations.

## Core parts



▲ German REMA handle with reliable and ergonomic control system. Additionally, the non-contact lifting and lowering rocker switch extends the life of the handle.



▲ The Italian Zapi drive controller and steering controller are used to provide customers with reliable and flexible high-performance control system solutions.



▲ Integrated functional area, equipped with key switch, emergency switch, battery indicator and USB charging port.

▲ Optional electric power steering system adopted in short-tiller stackers can control the steering wheel quickly and accurately, meeting the standards with high reliability and safety.

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



## Optional parts



▲ Optional Pin Panel Access, ensuring to manually input password or to swipe to start by RFID cards.

Optional built-in charger, simplifying battery charging work.



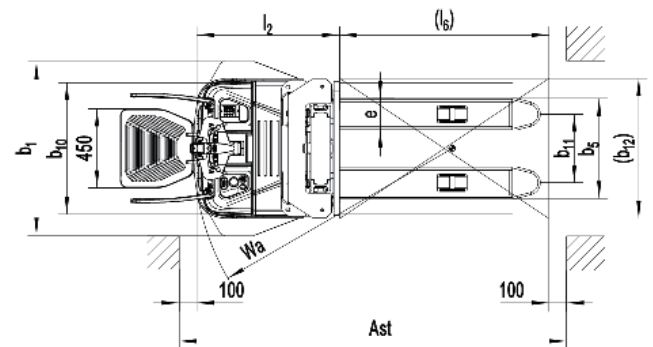
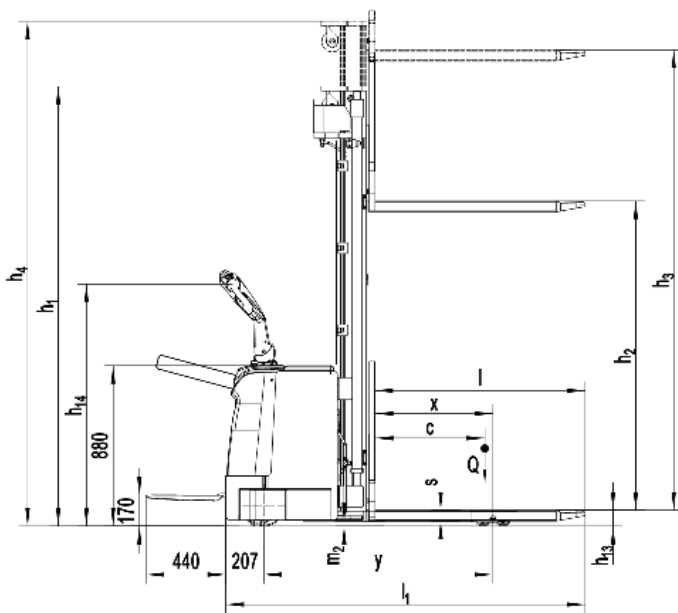
▲ Optional French HPI hydraulic system for proportional lift helps to ensure accurate positioning of the fork during lifting and lowering. The acceleration and deceleration of the fork are smoother, so fragile items can be operated.



▲ Optional side battery extraction, through a special trailer, high effective in battery replacement, and convenient for multi-shift operation.

Mast table PS16/20NW

| Designation                              | Lowered mast height h1(mm) | Free lift height h2(mm) | Lift height h3(mm) | Extended mast height h4(mm) |
|------------------------------------------|----------------------------|-------------------------|--------------------|-----------------------------|
| PS16NW                                   |                            |                         |                    |                             |
| Two stage mast                           | 1958                       | —                       | 2800               | 3380                        |
|                                          | 2108                       | —                       | 3100               | 3680                        |
|                                          | 2308                       | —                       | 3500               | 4080                        |
| Two stage mast FFL<br>(Full-Free-Lift)   | 1958                       | 1410                    | 2800               | 3380                        |
|                                          | 2108                       | 1560                    | 3100               | 3680                        |
|                                          | 2308                       | 1760                    | 3500               | 4080                        |
| Three stage mast                         | 2008                       | —                       | 4200               | 4780                        |
|                                          | 2108                       | —                       | 4500               | 5080                        |
| Three stage mast FFL<br>(Full-Free-Lift) | 1708                       | 1120                    | 3300               | 3880                        |
|                                          | 1908                       | 1320                    | 3900               | 4480                        |
|                                          | 2008                       | 1420                    | 4200               | 4780                        |
|                                          | 2108                       | 1520                    | 4500               | 5080                        |
|                                          | 2343                       | 1576                    | 5200               | 5980                        |
|                                          | 2410                       | 1820                    | 5400               | 6110                        |
| PS20NW                                   |                            |                         |                    |                             |
| Two stage mast                           | 2078                       | —                       | 2800               | 3500                        |
|                                          | 2228                       | —                       | 3100               | 3800                        |
|                                          | 2428                       | —                       | 3500               | 4200                        |
| Two stage mast FFL<br>(Full-Free-Lift)   | 1978                       | 1310                    | 2600               | 3300                        |
|                                          | 2078                       | 1410                    | 2800               | 3500                        |
|                                          | 2228                       | 1560                    | 3100               | 3800                        |
|                                          | 2428                       | 1760                    | 3500               | 4200                        |
| Three stage mast                         | 2128                       | —                       | 4200               | 4900                        |
|                                          | 2228                       | —                       | 4500               | 5200                        |
| Three stage mast FFL<br>(Full-Free-Lift) | 1978                       | 1310                    | 3900               | 4600                        |
|                                          | 2128                       | 1420                    | 4200               | 4900                        |
|                                          | 2228                       | 1520                    | 4500               | 5200                        |



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

## Identification

|     |                                             |        |              |              |
|-----|---------------------------------------------|--------|--------------|--------------|
| 1.2 | Manufacturer's type designation             |        | PS16NW(5500) | PS20NW(4600) |
| 1.3 | Drive                                       |        | 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) | 647          | 650          |
| 1.9 | Wheelbase                                   | y (mm) | 1256         | 1392         |

## Weights

|     |                                              |    |           |           |
|-----|----------------------------------------------|----|-----------|-----------|
| 2.1 | Service weight                               | kg | 1365      | 1630      |
| 2.2 | Axle load at full load, drive side/load side | kg | 1000/1965 | 1124/2506 |
| 2.3 | Axle load at no load, drive side/load side   | kg | 943/422   | 1067/563  |

## Wheels, Chassis

|     |                                           |           |                  |  |
|-----|-------------------------------------------|-----------|------------------|--|
| 3.1 | Tires                                     |           | Polyurethane(PU) |  |
| 3.2 | Tire size,front                           | Øx w (mm) | Ø230×70          |  |
| 3.3 | Tire size,rear                            | Øx w (mm) | Ø84×70           |  |
| 3.4 | Additional wheels(dimensions)             | Øx w (mm) | Ø124x60          |  |
| 3.5 | Wheels,number front/rear(x=driven wheels) |           | 1x+2/4           |  |
| 3.6 | Tread, front                              | b10 (mm)  | 750              |  |
| 3.7 | Tread, rear                               | b11 (mm)  | 390/505          |  |

## Basic Dimensions

|      |                                               |            |                    |                    |
|------|-----------------------------------------------|------------|--------------------|--------------------|
| 4.2  | Lowered mast height                           | h1(mm)     | 2410               | 2228               |
| 4.3  | Free Lift height                              | h2(mm)     | 1820               | 1520               |
| 4.4  | Lift                                          | h3(mm)     | 5410               | 4510               |
| 4.5  | Extended maximal height                       | h4(mm)     | 5980               | 5200               |
| 4.9  | Height of tiller in drive position min./ max. | h14 (mm)   | 950/1350           |                    |
| 4.15 | Height, lowered                               | h13 (mm)   | 90                 |                    |
| 4.19 | Overall length                                | l1 (mm)    | 1968 <sup>1)</sup> | 2101 <sup>1)</sup> |
| 4.20 | Length to face of forks                       | l2 (mm)    | 818 <sup>1)</sup>  | 951 <sup>1)</sup>  |
| 4.21 | Overall width                                 | b1 (mm)    | 990                |                    |
| 4.22 | Fork dimensions                               | s/e/l (mm) | 60 / 180 / 1150    |                    |
| 4.25 | Width across forks                            | b5 (mm)    | 570 /685           |                    |
| 4.32 | Ground clearance, centre of wheelbase         | m2 (mm)    | 28                 |                    |
| 4.33 | Aisle width for pallets1000X1200 crossways    | Ast (mm)   | 2396 <sup>1)</sup> | 2530 <sup>1)</sup> |
| 4.34 | Aisle width for pallets800X1200 lengthways    | Ast (mm)   | 2382 <sup>1)</sup> | 2516 <sup>1)</sup> |
| 4.35 | Turning radius                                | Wa (mm)    | 1500 <sup>1)</sup> | 1634 <sup>1)</sup> |

## Performance Data

|      |                                   |      |                 |         |
|------|-----------------------------------|------|-----------------|---------|
| 5.1  | Travel speed, laden/ unladen      | km/h | 7.0/8.0         | 6.0/7.0 |
| 5.2  | Lift speed, laden/ unladen        | m/s  | 0.09/0.14       |         |
| 5.3  | Lowering speed, laden/ unladen    | m/s  | 0.25/0.20       |         |
| 5.8  | Max. gradeability, laden/ unladen | %    | 6/12            |         |
| 5.10 | Service brake                     |      | Electromagnetic |         |

## E-Motor

|     |                                               |        |        |        |
|-----|-----------------------------------------------|--------|--------|--------|
| 6.1 | Drive motor rating S2 60min                   | kW     | 1.4    |        |
| 6.2 | Lift motor rating at S3 10%                   | kW     | 3.0    |        |
| 6.3 | Battery acc. to DIN 43531/ 35/ 36 A, B, C, no |        | 3VBS   | 3PZS   |
| 6.4 | Battery voltage, nominal capacity K5          | V / Ah | 24/270 | 24/350 |
| 6.5 | Battery weight                                | kg     | 230    | 288    |
| 6.6 | Energy consumption acc. to VDI cycle          | kWh/h  | 1.34   | 1.70   |

## Other Details

|     |                                              |       |                   |  |
|-----|----------------------------------------------|-------|-------------------|--|
| 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) with compact platform:+440mm