



Linde Material Handling

*Linde*



## Platform Double Pallet Stacker

# D12-14 AP

Capacity 1.2 t-1.4 t | Series 1173

### Flexible performance engine

- Fold-out platform for a wide range of applications
- Up to 1400 kilograms on two pallets for maximum productivity
- Creep speed function makes difficult maneuvers in narrow aisles easier
- Linde OptiLift® mast control ensures precise load handling
- Excellent visibility through mast enables loading and unloading with millimeter accuracy
- With the powerful 2.3 kW AC engine, the trucks reach speeds of up to 10 km/h for increased handling capacity

# TECHNICAL DATA (According to VDI 2198)

|                 |        |                                                              |            |                                    |                                    |
|-----------------|--------|--------------------------------------------------------------|------------|------------------------------------|------------------------------------|
| Characteristics | 1.1    | Manufacturer                                                 |            | Linde                              | Linde                              |
|                 | 1.2    | Model                                                        |            | D12 AP                             | D14 AP                             |
|                 | 1.2.a  | Series                                                       |            | 1173                               | 1173                               |
|                 | 1.3.   | Power Unit                                                   |            | Battery                            | Battery                            |
|                 | 1.4    | Operation                                                    |            | Pedestrian/Stand-on                | Pedestrian/Stand-on                |
|                 | 1.5    | Load capacity/Load <sup>1)</sup>                             | Q (kg)     | 1200                               | 1400                               |
|                 | 1.6    | Load centre distance                                         | c (mm)     | 600                                | 600                                |
|                 | 1.8    | Axle centre to fork face <sup>2) 3)</sup>                    | x (mm)     | 842                                | 842                                |
| Weights         | 1.9    | Wheelbase <sup>2) 4)</sup>                                   | y (mm)     | 1597                               | 1597                               |
|                 | 2.1    | Service weight (± 10 %)                                      | (kg)       | 1150                               | 1150                               |
|                 | 2.2    | Axle load with load, front/rear (± 10 %)                     | (kg)       | 967/1383                           | 997/1553                           |
| Wheels/Tyres    | 2.3    | Axle load without load, front/rear (± 10 %) <sup>2)</sup>    | (kg)       | 785/365                            | 785/365                            |
|                 | 3.1    | Tyres rubber, SE, pneumatic, polyurethane                    |            | Rubber + polyurethan / polyurethan | Rubber + polyurethan / polyurethan |
|                 | 3.2    | Tyre size, front                                             |            | Ø 230 × 90                         | Ø 230 × 90                         |
|                 | 3.3    | Tyre size, rear <sup>5)</sup>                                |            | Ø 85 × 85 (Ø 85 × 60)              | Ø 85 × 85 (Ø 85 × 60)              |
|                 | 3.4    | Auxiliary wheels (dimensions)                                |            | 2x Ø 140 × 50                      | 2x Ø 140 × 50                      |
|                 | 3.5    | Wheels, number front/rear (x = driven) <sup>5)</sup>         |            | 1x + 2/2 (1x + 2/4)                | 1x + 2/2 (1x + 2/4)                |
|                 | 3.6    | Track width, front (± 5 mm)                                  | b10 (mm)   | 534                                | 534                                |
| Dimensions      | 3.7    | Track width, rear (± 5 mm)                                   | b11 (mm)   | 380                                | 380                                |
|                 | 4.2    | Height of mast, lowered <sup>6)</sup>                        | h1 (mm)    | 1915                               | 1915                               |
|                 | 4.3    | Free lift <sup>6)</sup>                                      | h2 (mm)    | 1395                               | 1395                               |
|                 | 4.4    | Lift <sup>6)</sup>                                           | h3 (mm)    | 4266                               | 4266                               |
|                 | 4.5    | Height of mast, extended <sup>6)</sup>                       | h4 (mm)    | 4786                               | 4786                               |
|                 | 4.6    | Initial lift                                                 | h5 (mm)    | 125                                | 125                                |
|                 | 4.9    | Height of tiller arm in operating position, min/max          | h14 (mm)   | 1162.5/1305.6                      | 1162.5/1305.6                      |
|                 | 4.15   | Height, lowered                                              | h13 (mm)   | 86                                 | 86                                 |
|                 | 4.19   | Overall length <sup>6) 7)</sup>                              | l1 (mm)    | 2225/2558                          | 2225/2558                          |
|                 | 4.20   | Length to fork face <sup>6)</sup>                            | l2 (mm)    | 1075/1408                          | 1075/1408                          |
|                 | 4.21   | Overall width                                                | b1/b2 (mm) | 800                                | 800                                |
|                 | 4.22   | Fork dimensions DIN ISO 2331                                 | s/e/l (mm) | 71 × 180 × 1150                    | 71 × 180 × 1150                    |
|                 | 4.24   | Width of fork carriage                                       | b3 (mm)    | 780                                | 780                                |
|                 | 4.25   | Fork spread                                                  | b5 (mm)    | 560/680                            | 560/680                            |
|                 | 4.26   | Straddle legs spread (from inside), min/max                  | b4 (mm)    | 200/320                            | 200/320                            |
|                 | 4.34.1 | Ground clearance, centre of wheelbase <sup>2)</sup>          | m2 (mm)    | 30                                 | 30                                 |
|                 | 4.34.2 | Aisle width with pallet 800 × 1200 along forks <sup>6)</sup> | Ast (mm)   | 2693/3021 <sup>6) 7)</sup>         | 2693/3021 <sup>6) 7)</sup>         |
| Performance     | 4.35   | Turning radius <sup>6)</sup>                                 | Wa (mm)    | 2011/2339 <sup>6) 7)</sup>         | 2011/2339 <sup>6) 7)</sup>         |
|                 | 5.1    | Travel speed, with/without load (± 5 %) <sup>7)</sup>        | (km/h)     | 4/4; 6/6; 8/10                     | 4/4; 6/6; 8/10                     |
|                 | 5.2    | Lifting speed, with/without load (± 10 %) <sup>6) 8)</sup>   | (m/s)      | 0.16/0.30                          | 0.15/0.30                          |
|                 | 5.3    | Lowering speed, with/without load (± 10 %) <sup>6)</sup>     | (m/s)      | 0.40/0.35                          | 0.45/0.35                          |
|                 | 5.8    | Maximum climbing ability, with/without load                  | (%)        | 10/24                              | 10/24                              |
|                 | 5.10   | Service brake                                                |            | Electro                            | Electro                            |
| Drive           | 6.1    | Drive motor rating S2 60 min                                 | (kW)       | 2.3                                | 2.3                                |
|                 | 6.2    | Lift motor rating at S3 15 %                                 | (kW)       | 3.2                                | 3.2                                |
|                 | 6.3    | Battery according to DIN 43531/35/36 A, B, C, no             |            | 3 PzS-SL                           | 3 PzS-SL                           |
|                 | 6.4    | Battery voltage/rated capacity (5 h)                         | (V/Ah)     | 24/375                             | 24/375                             |
|                 |        |                                                              |            | 4 PZS SL, Li-ION 205 Ah: 23/205    | 4 PZS SL, Li-ION 205 Ah: 23/205    |
|                 |        |                                                              |            | 4 PZS SL, Li-ION 410 Ah: 23/410    | 4 PZS SL, Li-ION 410 Ah: 23/410    |
|                 | 6.5    | Battery weight (± 10 %)                                      | (kg)       | 272/315 min./max.                  | 272/315 min./max.                  |
|                 |        | Battery weight with case (± 10 %)                            | (kg)       | 4 PZS SL, Li-ION 205 Ah: 312       | 4 PZS SL, Li-ION 205 Ah: 312       |
|                 |        | Battery weight with case (± 10 %)                            | (kg)       | 4 PZS SL, Li-ION 410 Ah: 351       | 4 PZS SL, Li-ION 410 Ah: 351       |
| Others          | 6.6    | Power Consumption according to VDI cycle normalized          | (kWh/h)    | 1.27                               | 1.47                               |
|                 | 6.7    | Turnover output according to VDI cycle                       | (T/h)      | 63                                 | 70.4                               |
|                 | 6.8    | Power Consumption on turnover output                         | (kWh/h)    | 1.84                               | 1.85                               |
|                 | 8.1    | Type of drive unit                                           |            | LAC                                | LAC                                |
|                 | 10.7   | Sound pressure level LpAZ (at the driver's seat)             | (dB(A))    | < 66                               | < 66                               |

1) In brackets: pallet truck capacity on the support arms, with initial lift option

2) Support arms low position/high position

3) Values with a T mast (+ 26 mm for S or D mast)

4) Values with 6.3 line battery for 3 PzS

5) In brackets: truck equipped with boogie option

6) Values with standard mast 4266T; for other values see mast table

7) Value with lowered platform

8) Free-lift with booster option = 0.40 m/s

9) Value with creep speed tiller

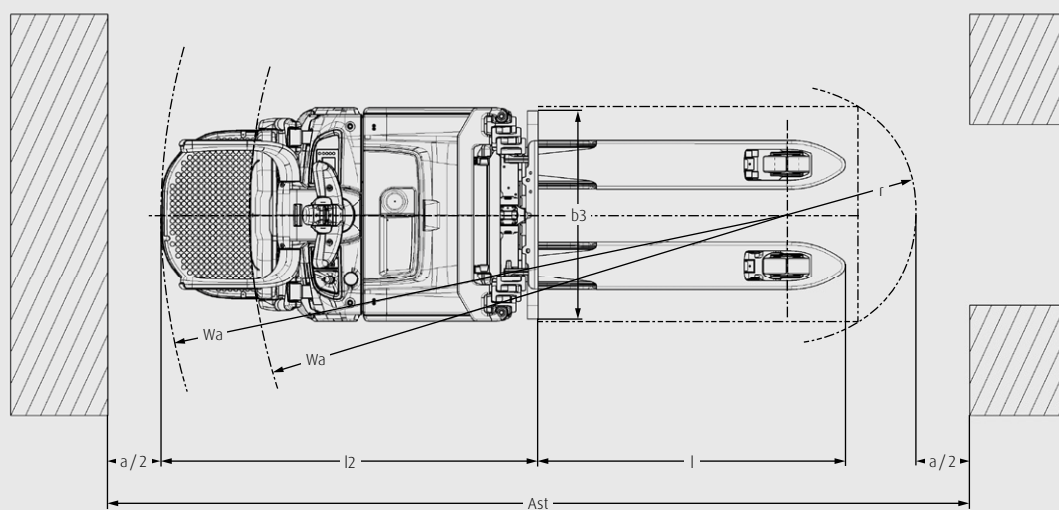
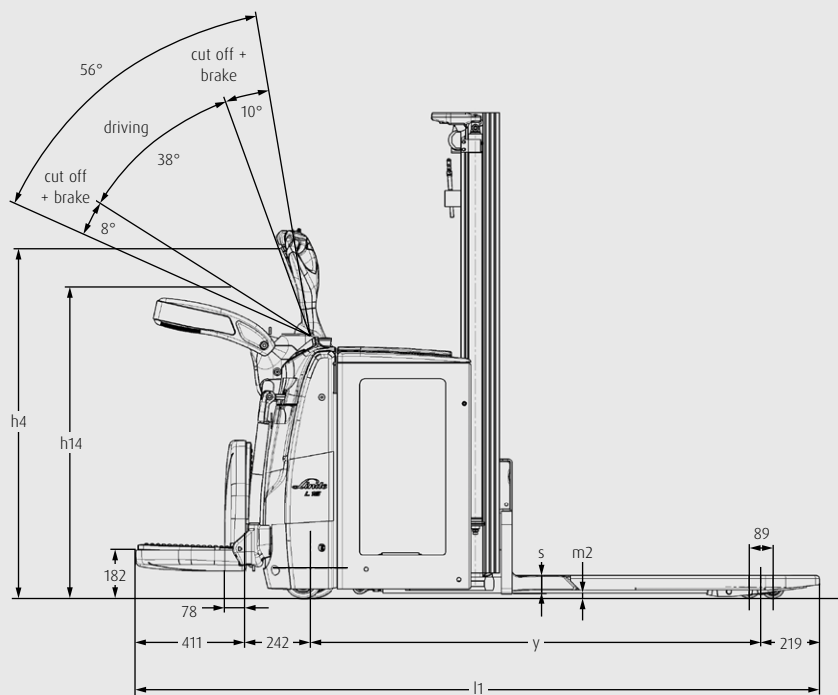
10) Value with bumper

11) Initial lift with tiller creep speed

12) Initial lift with bumper

13) Initial lift with closed platform

14) Initial lift with lowered platform



# MAST TABLES

## STANDARD MAST (in mm)

| Lift                | h3: 1574                                       | h3: 1924                                       | h3: 2424                                       | h3: 2924                                       | h3: 3324                                       | h3: 3824                                       |
|---------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| Height measurements | h1: 1315   h2: 150<br>h3+h13: 1660<br>h4: 2110 | h1: 1490   h2: 150<br>h3+h13: 2010<br>h4: 2460 | h1: 1740   h2: 150<br>h3+h13: 2510<br>h4: 2960 | h1: 1990   h2: 150<br>h3+h13: 3010<br>h4: 3460 | h1: 2190   h2: 150<br>h3+h13: 3410<br>h4: 3860 | h1: 2440   h2: 150<br>h3+h13: 3910<br>h4: 4360 |
| Model               |                                                |                                                |                                                |                                                |                                                |                                                |
| D12 AP              | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          |
| D14 AP              | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                          |

## DUPLEX MAST (in mm)

| Lift                | h3: 1574                                       | h3: 1924                                       | h3: 2424                                        | h3: 2924                                        | h3: 3324                                        | h3: 3824                                        |
|---------------------|------------------------------------------------|------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Height measurements | h1: 1240   h2: 704<br>h3+h13: 1660<br>h4: 2110 | h1: 1415   h2: 879<br>h3+h13: 2010<br>h4: 2460 | h1: 1665   h2: 1129<br>h3+h13: 2510<br>h4: 2960 | h1: 1915   h2: 1379<br>h3+h13: 3010<br>h4: 3460 | h1: 2115   h2: 1579<br>h3+h13: 3410<br>h4: 3860 | h1: 2365   h2: 1829<br>h3+h13: 3910<br>h4: 4360 |
| Model               |                                                |                                                |                                                 |                                                 |                                                 |                                                 |
| D12 AP              | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                           | <input type="radio"/>                           | <input type="radio"/>                           | <input type="radio"/>                           |
| D14 AP              | <input type="radio"/>                          | <input type="radio"/>                          | <input type="radio"/>                           | <input type="radio"/>                           | <input type="radio"/>                           | <input type="radio"/>                           |

## TRIPLEX MAST (in mm)

| Lift                | h3: 1574                                       | h3: 3516                                        | h3: 4266                                        |
|---------------------|------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Height measurements | h1: 1165   h2: 629<br>h3+h13: 1660<br>h4: 2067 | h1: 1665   h2: 1129<br>h3+h13: 3602<br>h4: 4052 | h1: 1915   h2: 1379<br>h3+h13: 4352<br>h4: 4802 |
| Model               |                                                |                                                 |                                                 |
| D12 AP              | <input type="radio"/>                          | <input type="radio"/>                           | <input type="radio"/>                           |
| D14 AP              | <input type="radio"/>                          | <input type="radio"/>                           | <input type="radio"/>                           |

☐ Optional equipment

**h1:** Height of mast, lowered

**h2:** Free lift

**h3:** Lift

**h4:** Height of mast, extended

**h3+h13:** Lift + Fork height

# STANDARD AND OPTIONAL EQUIPMENT

| Model/Equipment             |                                                                                                                                   | D12 AP | D14 AP |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| Safety                      | Folding side guards                                                                                                               | ●      | ●      |
|                             | Automatic speed reduction when cornering                                                                                          | ●      | ●      |
|                             | Key switch                                                                                                                        | ●      | ●      |
|                             | Log in PIN code                                                                                                                   | ○      | ○      |
| Service                     | CAN bus technology                                                                                                                | ●      | ●      |
| Digitalisation              | Linde Connected Solutions:                                                                                                        | ○      | ○      |
|                             | ac: access control (PIN or RFID Dual),                                                                                            | ○      | ○      |
|                             | an: usage analysis and dt: crash detection                                                                                        | ○      | ○      |
|                             | Data transfer online                                                                                                              | ○      | ○      |
|                             | Data transfer WIFI                                                                                                                | ○      | ○      |
|                             | Bluetooth USB Stick                                                                                                               | ○      | ○      |
| Operation/<br>Load Handling | Ultra fast lifting                                                                                                                | ○      | ○      |
|                             | Creep speed control                                                                                                               | ●      | ●      |
|                             | Linde Safety lift function                                                                                                        | ●      | ●      |
|                             | Pallet stop                                                                                                                       | ●      | ●      |
|                             | Load backrest 1000 mm                                                                                                             | ○      | ○      |
|                             | Initial lift                                                                                                                      | ●      | ●      |
|                             | Soft landing of forks                                                                                                             | ○      | ○      |
| Enviro-<br>ment             | Cold store -35 °C (in/out)                                                                                                        | ○      | ○      |
| Workplace                   | Suspended platform                                                                                                                | ●      | ●      |
|                             | Multifunction coloured display hour meter, maintenance indication, battery discharge indicator and internal fault code indication | ●      | ●      |
|                             | Spacious storage compartments                                                                                                     | ●      | ●      |
|                             | Pack clipboard                                                                                                                    | ○      | ○      |
| Mast                        | Standard                                                                                                                          | ○      | ○      |
|                             | Simplex                                                                                                                           | ○      | ○      |
|                             | Duplex                                                                                                                            | ○      | ○      |
|                             | Triplex                                                                                                                           | ○      | ○      |
|                             | Mast protection: polycarbonate                                                                                                    | ●      | ●      |
|                             | Mast protection: mesh                                                                                                             | ○      | ○      |
| Attache-<br>ment/Forks      | Fork carriage 560/1150/55 mm                                                                                                      | ●      | ●      |
|                             | Fork carriage 680/1150/55 mm                                                                                                      | ○      | ○      |
| Axles and Tyres             | Drive wheels polyurethane                                                                                                         | ●      | ●      |
|                             | Drive wheels cushion rubber, non marking, wet grip                                                                                | ○      | ○      |
|                             | Single load wheels polyurethane                                                                                                   | ●      | ●      |
|                             | Tandem load wheels gresseable or no gresseable                                                                                    | ○      | ○      |
|                             | Double castor wheels                                                                                                              | ●      | ●      |
|                             | Double castor wheels gresseable                                                                                                   | ○      | ○      |
| Drive and<br>Brake-system   | OptiLift® system                                                                                                                  | ●      | ●      |
|                             | 2.3 kW AC (maintenance free)                                                                                                      | ●      | ●      |
|                             | Electromagnetic braking system                                                                                                    | ●      | ●      |
|                             | Battery compartment, lateral change 3 PzS (345 Ah/375 Ah)                                                                         | ●      | ●      |
|                             | Battery compartment, lateral change 4 PzS (460 Ah/500 Ah)                                                                         | ○      | ○      |
|                             | Battery compartment, Li-ION battery 4.5 kWh (205 Ah)/9.0 kWh (410 Ah) inclusive side plug for opportunity charging                | ○      | ○      |
|                             | Li-ION 24 V charger                                                                                                               | ○      | ○      |

● Standard equipment      ○ Optional equipment

# CHARACTERISTICS



Folding side guards protect the operator

## Safety

- Folding side guards protect the operator from injury
- Electromagnetic brake prevents accidents
- Soft, slip-proof rubber padding



Spacious workstation

## Ergonomics

- Fully suspended operator compartment increased driver comfort
- One-handed operation of all driving and lifting functions for quick, easy transportation
- Numerous storage compartments
- Creep speed enables precise, convenient load handling
- Effortless folding up and down of the platform



Efficient transport of two pallets

## Handling

- Linde OptiLift® mast control ensures a high level of precision at a fast pace of work
- Pallet stop ensures well positioning of pallets
- Top speed of 10 km/h unloaded and 8 km/h loaded
- Double stacking function allows simultaneous transport of two pallets with a weight of 1000 kg each



Computerized diagnostic

## Service

- Multi-functional display provides an overview of all the truck information
- Maintenance-free 2.3 kW AC engine guarantees high availability
- CAN bus system for quick and easy diagnosis via notebook
- Easy access to all components

Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.

Presented by:



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