

## Standard Equipment/Optional Equipment

### Standard Equipment

#### Sinergo®, the operator/truck interface:

- Power assisted steering
- Long tiller with low mounting point
- Creep speed control
- Linde Safety-Lift
- End-of-stroke resistance
- Dedicated work station (with storage compartments)
- OptiLift® proportional lift system on the tiller head
- Mast protection (polycarbonate or steel mesh)
- Multifunction coloured display with weighing device as well as hourmeter, maintenance indication, battery discharge indicator and internal fault code indication
- Weighing device information from the ground up to 1500 mm with +/- 50 kg accuracy
- 2,3 kW AC motor (maintenance free)
- CAN bus technology

- Vertical battery change 2 PzS (3 PzS on the 2 t version)
- Positive steering (drive wheel) feedback
- Automatic speed reduction when cornering
- Electromagnetic emergency brake
- Key switch or LFMgo (PIN-code access)
- Cushion drive wheel
- Polyurethane single load wheels
- Single castor wheel (1.4 t and 1.6 t versions)
- Double castor wheels (2 t version)
- Width over fork carriage: 560 mm, 680 mm (1.4 t and 1.6 t versions) or 580 mm (2 t version)
- Fork carriage length/thickness: 1150 mm/71 mm or 55 mm (preferred while using gitter box), 1150 mm/73 mm on 2 t version
- Protection -10°C

### Optional Equipment

- Initial lift
- Proportional speed control
- Ultra fast lifting (up to +40%)
- Double castor wheels (1.4 t and 1.6 t versions)
- Soft landing of forks (free of charge)
- Drive wheels: polyurethane, wet grip, cushion with tread, polyurethane with tread or non marking
- Load wheels: tandem polyurethane, tandem polyurethane gresable
- Load backrests
- Lateral battery change 3 PzS (1.4 t and 1.6 t versions)
- Standard, Duplex or Triplex masts (Mast up to 5316 mm)

- Alternative fork carriage length/thickness: 950 mm / 71 mm or 55 mm (preferred while using gitter box), 950 mm / 73 mm on the 2 t version
- Linde Connected Solutions: ac:access control, an:usage analysis and dt:crash detection
- Pack Clipboard
- Mobile or Fixed battery stand (for lateral battery change)
- Automatic battery watering system
- Built-in charger
- Cold store protection -35°C

Other options available on request



## Pedestrian Pallet Stacker Capacity 1400, 1600 and 2000 kg L14, L16, L20

Series 1173

Linde Material Handling

Linde

### Safety

The Linde pedestrian pallet stacker is a perfect fit for any stacking application. A weighing device enables to estimate load's weight up to 1500 mm so as to combine the information with the capacity plate for advanced safety. Safety-lift can be used for lifting with the tiller vertical while safety is assured as both hands remain on the controls.

### Performance

High operational efficiency is this truck's true strength with its 2,3 kW AC motor. The robust chassis structure gives this truck exceptional residual capacity and offers capacities from 1400 kg up to a strengthened 2000 kg version complying with heavy load handling performances

### Comfort

The OptiLift system, easy access to the controls and fingertip operation of the truck allow precise and comfortable handling. The proportional speed control option automatically reduces traction speed in relation to the distance between truck and operator.

### Reliability

The material of the motor cover has been selected to protect strategic components effectively and to be long lasting for an extended service life. The robust chassis and cast steel rear skirt ensure a long service life in heavy duty applications. With the initial lift version (option), the ground clearance is improved to cope with gradients and dock levellers.

### Serviceability

Efficiency at work, efficiency in servicing. A colour display provides important information at a single glance, indicates maintenance requirements and battery status. Robust components and a tried and tested, maintenance-free AC motor ensure service intervals are extended and operating costs reduced.

## Features

#### Tiller & Tiller head

- With the soft fold back system, the tiller returns smoothly to the vertical position preventing impacts against the motor's cover
- Long tiller with low mounting point provides a large safety clearance between operator and chassis
- Easy-to-reach control buttons permit fingertip operation for utmost efficiency
- Wrap-around hand protection
- Twin grip steering control, operable with either hand for easy handling

#### Linde Weighing Device

- Weight estimation of the load carried up to 1500 mm
- Warning when nominal capacity is reached
- System accuracy +/- 50 kg



#### Lifting System

- OptiLift mast control provides precise, fully proportional lifting
- Soft landing of the forks protects the load when lowering
- Initial lift version provides improved clearance on ramps and dock levellers
- Wide range of mast options available to suit any application



#### Multifunctional Display

- Important information about truck and the load
- Visual warning when residual capacity limit is reached
- Provides hourmeter, battery status and maintenance information



#### Brakes

- Automatic braking on release of traction butterfly or selecting the opposite direction
- Truck slows before coming to a stop, remaining under total control at all times
- Highly efficient electromagnetic brake applied by moving the tiller to fully up or down position
- Easy-to-reach emergency isolator on the top of the front cover

#### Steering System

- Electric power steering as standard ensures effortless driving
- Proportional speed control varies truck speed automatically in relation to tiller angle for safe operation
- Creep speed function allows for slow and highly maneuverable operation in confined areas with upright tiller
- End-of-stroke resistance on the tiller avoids accidental, abrupt braking

#### AC Motor

- Powerful, high torque 2,3 kW AC drive motor
- Moisture and dust-proof AC motor
- No rollback when starting on a slope
- Traction speed adjustable up to 6km/h, laden or unladen



#### Battery change

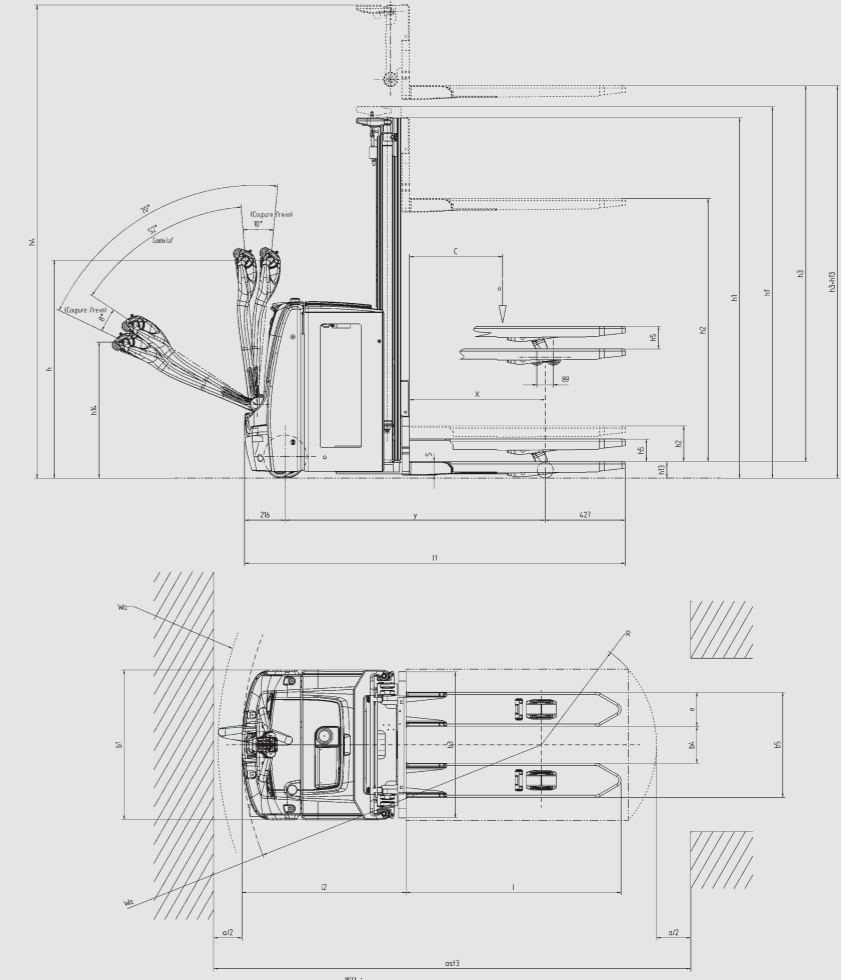
- Vertical battery change as standard
- Lateral change option includes:
- Rollers inside the battery compartment to aid battery change
- Lever initiates battery change preventing direct contact

# Technical Data according to VDI 2198

|                 |  | L14   | L16   | L20   |   |   |
|-----------------|--|---|---|---|---|---|
| Characteristics | 1.1  | Manufacturer  | LINDE   | LINDE   | LINDE   |   |
|                 | 1.2  | Model designation                                   | <b>L14</b>  | <b>L16</b>  | <b>L20</b>  |   |
|                 | 1.2a   | Series  | 1173-00   | 1173-00   | 1173-00   |   |
|                 | 1.3  | Power unit  | Battery   | Battery   | Battery   |   |
|                 | 1.4  | Operation   | Pedestrian  | Pedestrian  | Pedestrian  |   |
|                 | 1.5  | Load capacity/Load                                  | Q (t)   | 1.4   | 1.6   | 2.0   |
|                 | 1.6  | Load centre   | c (mm)  | 600   | 600   | 600   |
|                 | 1.8  | Axle centre to fork face                            | x (mm)  | 724 (646) <sup>1) 2)</sup>                              | 724 (646) <sup>1) 2)</sup>                              | 724 (646) <sup>1) 2)</sup>                              |
|                 | 1.9  | Wheelbase   | y (mm)  | 1311 (1233) <sup>3) 1) 4) 2)</sup>                      | 1311 (1233) <sup>3) 1) 4) 2)</sup>                      | 1425 (1347) <sup>3) 1) 4) 2)</sup>                      |
| Weights         | 2.1  | Service weight                                      | (kg)  | 1085 <sup>4) 5)</sup>                                   | 1085 <sup>4) 5)</sup>                                   | 1670 <sup>4) 5)</sup>                                   |
|                 | 2.2  | Axle load with load, front/rear                     | (kg)  | 847 / 1638 <sup>4) 5)</sup>                             | 866 / 1819 <sup>4) 5)</sup>                             | 1296 / 2374 <sup>4) 5)</sup>                            |
|                 | 2.3  | Axle load without load, front/rear                  | (kg)  | 715 / 370 <sup>4) 5)</sup>                              | 715 / 370 <sup>4) 5)</sup>                              | 1122 / 548 <sup>4) 5)</sup>                             |
| Wheels/Tyres    | 3.1  | Tyres rubber, SE, pneumatic, polyurethane           | V+P/P <sup>6)</sup>                                     | V+P/P <sup>6)</sup>                                     | V+P/P <sup>6)</sup>                                     |   |
|                 | 3.2  | Tyre size, front                                    | Ø 230 x 90  | Ø 230 x 90  | Ø 230 x 90  |   |
|                 | 3.3  | Tyre size, rear                                     | Ø 85 x 85 (Ø 85 x 60) <sup>7)</sup>                     | Ø 85 x 85 (Ø 85 x 60) <sup>7)</sup>                     | Ø 85 x 105 (Ø 85 x 60) <sup>7)</sup>                    |   |
|                 | 3.4  | Auxiliary wheels (dimensions)                       | Ø 150 x 50  | Ø 150 x 50  | Ø 150 x 50  |   |
|                 | 3.5  | Wheels, number front/rear (x = driven)              | 1x + 1 / 2 (1x + 1 / 4) <sup>7)</sup>                   | 1x + 1 / 2 (1x + 1 / 4) <sup>7)</sup>                   | 1x + 1 / 2 (1x + 1 / 4) <sup>7)</sup>                   |   |
|                 | 3.6  | Track width, front                                  | b10 (mm)  | 534 <sup>2)</sup>                                       | 534 <sup>2)</sup>                                       | 534 <sup>2)</sup>                                       |
|                 | 3.7  | Track width, rear                                   | b11 (mm)  | 380 <sup>2)</sup>                                       | 370 <sup>2)</sup>                                       | 370 <sup>2)</sup>                                       |
| Dimensions      | 4.2  | Height of mast, lowered                             | h1 (mm)   | 1915 <sup>2)</sup>                                      | 1915 <sup>2)</sup>                                      | 1915 <sup>2)</sup>                                      |
|                 | 4.3  | Free lift   | h2 (mm)   | 150 <sup>2)</sup>                                       | 150 <sup>2)</sup>                                       | 150 <sup>2)</sup>                                       |
|                 | 4.4  | Lift  | h3 (mm)   | 2844 <sup>2)</sup>                                      | 2844 <sup>2)</sup>                                      | 2684 <sup>2)</sup>                                      |
|                 | 4.5  | Height of mast, extended                            | h4 (mm)   | 3364 <sup>2)</sup>                                      | 3364 <sup>2)</sup>                                      | 3284 <sup>2)</sup>                                      |
|                 | 4.9  | Height of tiller arm in operating position, min/max | h14 (mm)  | 697.5 / 1162.5  | 697.5 / 1162.5  | 697.5 / 1162.5  |
|                 | 4.15   | Height, lowered                                     | h13 (mm)  | 86  | 86  | 86  |
|                 | 4.19   | Overall length                                      | l1 (mm)   | 1950 <sup>3) 2)</sup>                                   | 1950 <sup>3) 2)</sup>                                   | 2068 <sup>3) 2)</sup>                                   |
|                 | 4.20   | Length to fork face                                 | l2 (mm)   | 800 <sup>3) 2)</sup>                                    | 800 <sup>3) 2)</sup>                                    | 915 <sup>3) 2)</sup>                                    |
|                 | 4.21   | Overall width                                       | b1/b2 (mm)  | 800 <sup>2)</sup>                                       | 800 <sup>2)</sup>                                       | 810 <sup>2)</sup>                                       |
|                 | 4.22   | Fork dimensions                                     | s/e/l (mm)  | 71 x 180 x 1150   | 71 x 180 x 1150   | 73 x 210 x 1150   |
|                 | 4.24   | Width of fork carriage                              | b3 (mm)   | 780 <sup>2)</sup>                                       | 780 <sup>2)</sup>                                       | 780 <sup>2)</sup>                                       |
|                 | 4.25   | Fork spread, min/max                                | b5 (mm)   | 560 / 680 <sup>2)</sup>                                 | 560 / 680 <sup>2)</sup>                                 | 580 / 680 <sup>2)</sup>                                 |
|                 | 4.26   | Width between reach legs                            | b4 (mm)   | 255 / 375   | 255 / 375   | 230 / 330   |
|                 | 4.32   | Ground clearance, centre of wheelbase               | m2 (mm)   | 30 (20/140) <sup>8) 1) 9)</sup>                         | 30 (20/140) <sup>8) 1) 9)</sup>                         | 14 (20/115) <sup>8) 1) 9)</sup>                         |
|                 | 4.33   | Aisle width with pallet 1000 x 1200 across forks    | Ast (mm)  | 2463 (2576) [2385 (2422)] <sup>10) 1) 12) 13) 14)</sup> | 2463 (2576) [2385 (2422)] <sup>10) 1) 12) 13) 14)</sup> | 2578 (2691) [2500 (2537)] <sup>10) 1) 12) 13) 14)</sup> |
| 4.34            | Aisle width with pallet 800 x 1200 along forks | Ast (mm)  | 2349 (2462) [2271 (2384)] <sup>10) 1) 12) 13) 14)</sup> | 2349 (2462) [2271 (2384)] <sup>10) 1) 12) 13) 14)</sup> | 2464 (2577) [2386 (2499)] <sup>10) 1) 12) 13) 14)</sup> |   |
| 4.35            | Turning radius                                 | Wa (mm)   | 1527 <sup>15) 3)</sup>                                  | 1527 <sup>15) 3)</sup>                                  | 1642 <sup>16) 3)</sup>                                  |   |
| Performance     | 5.1  | Travel speed, with/without load                     | (km/h)  | 6 / 6 <sup>17)</sup>                                    | 6 / 6 <sup>17)</sup>                                    | 6 / 6 <sup>17)</sup>                                    |
|                 | 5.2  | Lifting speed, with/without load                    | (m/s)   | 0.16 / 0.3 (0.4) <sup>18) 5)</sup>                      | 0.15 / 0.3 (0.4) <sup>18) 5)</sup>                      | 0.12 / 0.25 (0.35) <sup>18) 5)</sup>                    |
|                 | 5.3  | Lowering speed, with/without load                   | (m/s)   | 0.4 / 0.35 <sup>9)</sup>                                | 0.4 / 0.35 <sup>9)</sup>                                | 0.35 / 0.25 <sup>9)</sup>                               |
|                 | 5.8  | Maximum climbing ability, with/without load         | (%)   | 10.0 / 24.0   | 10.0 / 24.0   | 8.0 / 24.0  |
|                 | 5.10   | Service brake                                       |   | electric/mechanic                                       | electric/mechanic                                       | electric/mechanic                                       |
| Drive           | 6.1  | Drive motor, 60 minute rating                       | (kW)  | 2.3   | 2.3   | 2.3   |
|                 | 6.2  | Lift motor, rating at S3 15%                        | (kW)  | 3.2   | 3.2   | 3.2   |
|                 | 6.3  | Battery according to DIN 43531/35/36 A,B,C,no       |   | 43 535 / B / 2PzS                                       | 43 535 / B / 2PzS                                       | 43 535 / B / 3PzS                                       |
|                 | 6.4  | Battery voltage/rated capacity (5h)                 | (V/Ah)  | 24 / 250  | 24 / 250  | 24 / 270  |
|                 | 6.5  | Battery weight (± 5%)                               | (kg)  | 212   | 212   | 249   |
|                 | 6.6  | Power consumption according to VDI cycle            | (kWh/h)   | 1.47  | 1.47  | 1.52  |
| Others          | 8.1  | Type of drive control                               |   | LAC w. microprocessor                                   | LAC w. microprocessor                                   | LAC w. microprocessor                                   |
|                 | 8.4  | Noise level at operator's ear                       | (dB(A))   | < 66  | < 66  | < 66  |

1) Figures in parenthesis with initial lift  
 2) (± 5 mm)  
 3) ± 0 mm = 2 PzS vertical; + 75 mm = 3 PzS vertical; + 150 mm = 4 PzS vertical  
 4) Figures with battery, see line 6.4/6.5.  
 5) (± 10%)  
 6) Solid rubber + polyurethane / polyurethane  
 7) Figures in parenthesis with tandem load wheels.  
 8) Without/with initial lift  
 9) (± 2 mm)  
 10) Values in parenthesis with bumper  
 11) With creep speed = tiller in vertical position

12) [with initial lift]  
 13) Including a 200 mm (min.) operating aisle clearance.  
 14) (± 20 mm)  
 15) with initial lift Wa = 1449 mm, with bumper Wa = 1640 mm, with initial lift and bumper Wa = 1562 mm  
 16) with initial lift Wa = 1564 mm, with bumper Wa = 1755 mm, with initial lift and bumper Wa = 1677 mm  
 17) (± 5%)  
 18) figures in parenthesis for optional „Lift Speed Booster“



| Mast 1.4 and 1.6 t (in mm)               | 1844 S        | 2344 S | 2844 S | 3244 S | 3744 S | 4144 S | 4644 S | 1844 D | 2344 D |      |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Lift                                     | <b>h3</b>     | 1844   | 2344   | 2844   | 3244   | 3744   | 4144   | 4644   | 1844   | 2344 |
| Lift + fork height                       | <b>h3+h13</b> | 1930   | 2430   | 2930   | 3330   | 3830   | 4230   | 4730   | 1930   | 2430 |
| Height, mast lowered                     | <b>h1</b>     | 1415   | 1665   | 1915   | 2115   | 2365   | 2565   | 2815   | 1415   | 1665 |
| Closed height (with free lift at 150 mm) | <b>h1#</b>    | 1490   | 1740   | 1990   | 2190   | 2440   | 2640   | 2890   | -      | -    |
| Height, mast extended                    | <b>h4</b>     | 2364   | 2864   | 3364   | 3764   | 4264   | 4664   | 5164   | 2364   | 2864 |
| Free lift                                | <b>h2</b>     | 150    | 150    | 150    | 150    | 150    | 150    | 150    | 895    | 1145 |

| Mast 1.4 and 1.6 t (in mm)               | 2844 D        | 3244 D | 3744 D | 4144 D | 3516 T | 4266 T | 4716 T | 5316 T |      |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|------|
| Lift                                     | <b>h3</b>     | 2844   | 3244   | 3744   | 4144   | 3516   | 4266   | 4716   | 5316 |
| Lift + fork height                       | <b>h3+h13</b> | 2930   | 3330   | 3830   | 4230   | 3602   | 4352   | 4802   | 5402 |
| Height, mast lowered                     | <b>h1</b>     | 1915   | 2115   | 2365   | 2565   | 1665   | 1915   | 2065   | 2265 |
| Closed height (with free lift at 150 mm) | <b>h1#</b>    | 1915   | 2115   | 2365   | 2565   | 1665   | 1915   | 2065   | 2265 |
| Height, mast extended                    | <b>h4</b>     | 3364   | 3764   | 4264   | 4664   | 4036   | 4786   | 5236   | 5836 |
| Free lift                                | <b>h2</b>     | 1395   | 1595   | 1845   | 2045   | 1145   | 1395   | 1545   | 1745 |

| Mast 2 t (in mm)                         | 2684 S        | 3084 S | 3584 S | 2684 D | 3084 D | 3584 D | 3276 T | 4026 T | 4476 T |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Lift                                     | <b>h3</b>     | 2684   | 3084   | 3584   | 2684   | 3084   | 3584   | 4026   | 4476   |
| Lift + fork height                       | <b>h3+h13</b> | 2770   | 3170   | 3670   | 2770   | 3170   | 3670   | 4112   | 4562   |
| Height, mast lowered                     | <b>h1</b>     | 1915   | 2115   | 2365   | 1915   | 2115   | 2365   | 1915   | 2065   |
| Closed height (with free lift at 150 mm) | <b>h1#</b>    | 1990   | 2190   | 2440   | -      | -      | -      | -      | -      |
| Height, mast extended                    | <b>h4</b>     | 3284   | 3684   | 4184   | 3284   | 3684   | 4184   | 3876   | 5076   |
| Free lift                                | <b>h2</b>     | 150    | 150    | 150    | 1315   | 1515   | 1765   | 1065   | 1465   |

Other masts on request  
 S=Standard, D=Duplex, T=Triplex