Linde Material Handling

## Order Pickers

# N20 LoL

Capacity 0.8 t | Series 1115

PB ION H2

### Practical double order picker

→ Long load arms and additional wrap-over lifting forks allow two pallets to be loaded at the same time without back strain

→ Fully suspended operator's platform provides optimum protection against shock and vibrations

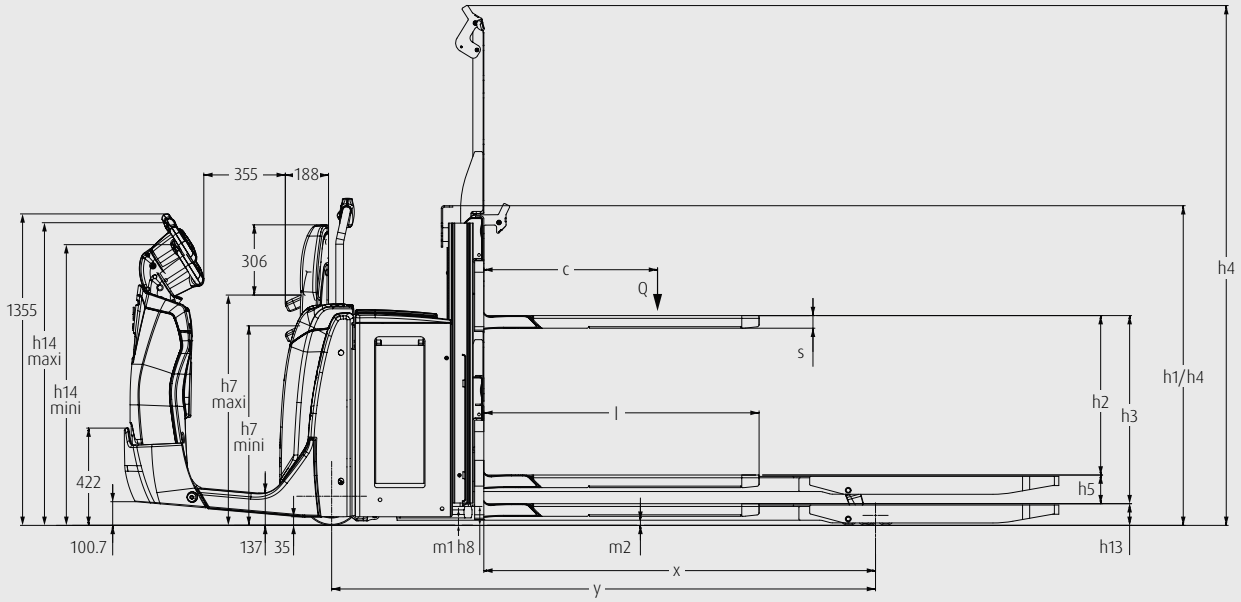
→ Operator's platform at front provides a clear view when changing aisles

→ Robust cast steel bumper protects chassis and operator’s compartment from damage

# TECHNICAL DATA (according to VDI 2198)

| | | | | |
|---|---|---|---|---|
| Characteristics | 1.1 | Manufacturer (abbreviation) | | Linde MH |
| | **1.2** | **Manufacturer's type designation** | | **N20 LoL** |
| | 1.2a | Series | | 1115-00 |
| | 1.3 | Drive | | Battery |
| | 1.4 | Operation | | Order picker |
| | 1.5 | Rated capacity/rated load | Q (t) | 0.8; (0.8/1.2); 2.0[1] |
| | 1.6 | Load centre distance | c (mm) | 600 |
| | 1.8 | Load distance, centre of drive axle to fork | x (mm) | 1532/1602[2][3] |
| | 1.9 | Wheelbase | y (mm) | 2201/2271[2][3][4] |
| Weight | 2.1 | Service weight | kg | 1473[5] |
| | 2.2 | Axle loading, laden front/rear | kg | 1608/1865[5][6] |
| | 2.3 | Axle loading, unladen front/rear | kg | 1182/291[5] |
| Tyres/chassis | 3.1 | Tyres: solid rubber, superelastic, pneumatic, polyurethane | | R+P/P; P+P/P |
| | 3.2 | Tyre size, front | | Ø 254 × 102 |
| | 3.3 | Tyre size, rear | | Ø 85 × 85 (Ø 85 × 60)[7] |
| | 3.4 | Additional wheels (dimensions) | | 2x Ø 140 × 50 |
| | 3.5 | Wheels, number front/rear (x = driven wheels) | | 1x + 1/2 (1x + 1/4)[7] |
| | 3.6 | Tread, front | b10 (mm) | 491[3] |
| | 3.7 | Tread, rear | b11 (mm) | 380[3] |
| Dimensions | 4.2 | Mast height, lowered | h1 (mm) | 1391[3] |
| | 4.3 | Free lift | h2 (mm) | 750[3] |
| | 4.4 | Lift | h3 (mm) | 750[3] |
| | 4.5 | Mast height, extended | h4 (mm) | 1391[3] |
| | 4.6 | Initial lift | h5 (mm) | 115[8] |
| | 4.8 | Seat height relating to SIP/stand height | h7 (mm) | 867/1000[3][9][10] |
| | 4.10 | Height of wheel arms | h8 (mm) | 86[11] |
| | 4.15 | Height, lowered | h13 (mm) | 92[11] |
| | 4.19 | Overall length | l1 (mm) | 3967[3][4] |
| | 4.20 | Length to fork face | l2 (mm) | 1567[3][4] |
| | 4.21 | Overall width | b1/b2 (mm) | 800[3] |
| | 4.22 | Fork dimensions DIN ISO 2331 | s/e/l (mm) | 76/178/2400 / 66/126/2400[12] |
| | 4.24 | Fork carriage width | b3 (mm) | 780[3] |
| | 4.25 | Fork spread | b5 (mm) | 560[3] |
| | 4.26 | Distance between wheel arms/loading surfaces | b4 (mm) | 255 (202)[3][13] |
| | 4.31 | Ground clearance, laden, below mast | m1 (mm) | 135/20[2][14] |
| | 4.32 | Ground clearance, centre of wheelbase | m2 (mm) | 135/20[2][14] |
| | 4.33 | Load dimension b12 × l6 | b12 × l6 (mm) | 2x 800 × 1200 |
| | 4.34 | Aisle width predetermined load dimensions | Ast (mm) | 4258[4][15][16] |
| | 4.35 | Turning radius | Wa (mm) | 3102/3172[2][4] |
| Performance data | 5.1 | Travel speed, laden/unladen | km/h | 10/12[17] |
| | 5.1.1 | Travel speed, laden/unladen, backwards | km/h | 10/10[17] |
| | 5.2 | Lifting speed, laden/unladen | m/s | 0.12/0.2 (0.06/0.07)[5][18] |
| | 5.3 | Lowering speed, laden/unladen | m/s | 0.3/0.3 (0.06/0.08)[5][18] |
| | 5.8 | Max. gradeability, laden/unladen | % | 14.0/20.0 |
| | 5.9 | Acceleration time, laden/unladen | s | 6.0/4.8 |
| | 5.10 | Service brake | | Electric/hydraulic |
| Electric-engine | 6.1 | Drive motor rating S2 60 min | kW | 3 |
| | 6.2 | Lift motor rating at S3 15% | kW | 2.2/10% |
| | 6.3 | Battery according to DIN 43531/35/36 A, B, C, no | | 43 535/3PzS[19] |
| | 6.4 | Battery voltage/nominal capacity K5 | (V)/(Ah) or kWh | 24/375 |
| | 6.5 | Battery weight (± 5%) | kg | 272/315[5][9] |
| | 6.6 | Energy consumption according to DIN EN 16796 | kWh/h | 0.59 |
| | 6.7 | Turnover output according to VDI 2198 | t/h | 136.0 |
| | 6.8 | Turnover efficiency according to VDI 2198 | t/kWh | 76 |
| Drive/lifting mechanism | 8.1 | Type of drive unit | | LAC |
| Additional data | 10.7 | Sound pressure level LpAZ (at the operator's seat) | dB(A) | < 85 |

1) Pallet truck capacity: on the fork arms only; on the fork arms/on the wheel arms; on the fork arms resting on the wheel arms in initial lift position
2) Forks upraised/lowered
3) (± 5 mm)
4) + 75 mm = 4 PzS side change
5) (± 10%)
6) Load distribution e.g. 1000 kg on the forks, 1000 kg on the load arms. Total load max. 2000 kg.
7) Figures in parentheses with tandem load wheels.
8) (0/-5 mm)
9) Min./max.
10) With optional operator's seat
11) (-0/+5 mm)
12) Forks/load arms
13) Load arms: 60(75)/125(150)/1115. Values in parantheses at the load arms tip
14) (± 2 mm)
15) Including a 200 mm (min.) operating aisle clearance.
16) Forks upraised
17) (± 5%)
18) Figures in parentheses = initial lift
19) Lateral change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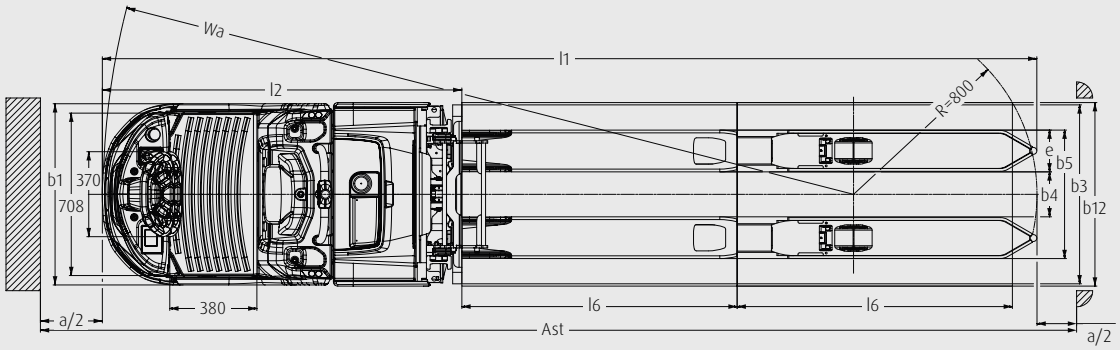
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# MAST TABLE

## SIMPLEX MAST (in mm)

| Lift | h3: 750 | h3: 912 | h3: 1612 |
|---|---|---|---|
| **Height measurements** | h1: 1391 h2: 750<br>h4: 1391 h5: 115 | h1: 1541 h2: 912<br>h4: 1541 h5: 115 | h1: 2065 h2: 1545<br>h4: 2132 h5: 115 |
| **Manufacturer's type designation** | | | |
| N20 LoL | ○ | ○ | ○ |

○ Optional equipment

**h1:** Mast height, lowered **h2:** Free lift **h3:** Lift **h4:** Mast height, extended
**h5:** Initial lift

Zahlen für andere Ausrüstungen und Triplexmasten auf Anfrage

# STANDARD AND OPTIONAL EQUIPMENT

| | Manufacturer's type designation/equipment | N20 LoL |
|---|---|---|
| Safety | Front cast steel bumper | ● |
| | Front rubber protection (mounted on the cast steel bumper) | ○ |
| | Linde BlueSpot – visual warning of truck presence integrated in the front top cover | ○ |
| | Automatic speed reduction when cornering | ● |
| | Front foot protection | ○ |
| | Soft landing of forks (300 mm) | ● |
| | Key switch | ● |
| | Log in PIN code | ○ |
| Service | CAN bus technology | ● |
| Digitalisation | Linde connect | ○ |
| | ac: access control PIN | ○ |
| | ac: access control RFID | ○ |
| | Data transmission Wifi | ○ |
| | Data transmission Online | ○ |
| | dt: crash detection | ○ |
| | an: usage analysis | ○ |
| | Bluetooth USB stick | ○ |
| | dt: trouble codes | ○ |
| Operation/ load handling | Inching controls (forward only or forward/backward) | ○ |
| | Rear initial lift and mast lift controls | ● |
| | Low speed if initial lift lowered | ● |
| | Initial lift electrical stop sensor | ● |
| | Soft landing of forks | ○ |
| | Mast pressure sensor | ● |
| | Load backrest 1000 mm | ○ |
| | Pallet locking system | ○ |
| Environ-ment | Cold store -35 °C (in/out) | ○ |
| Workplace | Fully suspended operator's compartment | ● |
| | Height adjustable Linde Steering Wheel | ○ |
| | Knee protection | ● |
| | Multifunction colour display: hour meter, battery discharge indicator, maintenance and internal fault code indication | ● |
| | Fixed rounded backrest | ● |
| | Height-adjustable backrest including folding seat | ○ |
| | Front bow | ○ |
| | Vertical central pole | ○ |
| | Support data terminal and power supply cable 24 V | ○ |
| | Support clipboard DIN A4 and support for scanner | ○ |
| | Shrink wrap pole and rear bin | ○ |
| | Rear lower storage | ○ |
| Mast | Mast protection: polycarbonate | ● |
| | Mast protection: mesh | ○ |
| Attachment/ forks | Fork carriage width: 560 mm | ○ |
| | Fork carriage length: 1200 mm or 1250 mm | ○ |
| | Fork arm length: 2400 mm or 2500 mm | ○ |
| | Overhang: 800 mm | ○ |
| Axles and tyres | Drive wheel polyurethane | ● |
| | Drive wheel cushion rubber, non marking and wet grip | ○ |
| | Single load wheels polyurethane | ● |
| | Tandem load wheels polyurethane (greasable) | ○ |
| | Standard castor wheel | ● |
| Drive and brake system | Power-assisted steering | ● |
| | 3 kW maintenance-free AC motor | ● |
| | Electromagnetic braking system | ● |
| | Battery compartment, side change 3 PzS (345 Ah / 465 Ah), incl. ergonomic lever and metal rollers | ● |
| | Battery compartment, side change 4 PzS (460 Ah / 620 Ah), incl. ergonomic lever and metal rollers | ○ |
| | Battery compartment, Li-ION battery 4.5 kWh (205 Ah) / 9.0 kWh (410 Ah), incl. side plug for opportunity charging | ○ |
| | Li-ION 24 V charger | ○ |

● Standard equipment ○ Optional equipment

# CHARACTERISTICS

Linde BlueSpot and front LED light

## Safety

→ Automatic speed reduction in curves and increased braking performance with heavy loads offer maximum safety
→ Controlled lowering of the load arms provides soft landing of the load
→ Automatic stop if no-one is on the platform or if the emergency button is activated
→ Operator's platform at front provides a clear view when changing aisles
→ Additional options such as front LED and Linde BlueSpot maximise safety in the warehouse

Easy-to-use pallet locking

## Ergonomics

→ Lifting forks provide an optimum picking height reducing back strain
→ Low 137 mm platform ensures easy on/off access
→ Optional inching controls allow easy short distance movement for the next pick
→ Optional pallet locking device ensures safe transport and easy release of the second pallet
→ Fully suspended operator's platform reduces shocks and vibration in operation

Intuitive Linde Steering Wheel

## Handling

→ 3 kW three-phase AC motor for powerful acceleration to a top speed of 12 km/h
→ Lead acid or Li-ION batteries available to suit the application
→ Adjustable Linde Steering Wheel provides intuitive operation with clear symbols on all controls
→ Self-centering electric steering speeds up operation
→ Initial lift eases operation over ramps and uneven surfaces

Front cast steel bumper

## Service

→ 1000 operating hour service intervals
→ Maintenance-free three-phase AC motors and self-adjusting brakes reduce service costs
→ Motor and battery covers provide easy access to technical compartment
→ Essential vehicle parameters can be checked or changed via a laptop
→ Robust cast steel bumper protects chassis and operator's platform from collision damage

Presented by:

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

Linde Material Handling

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