



## Order picker

# N20 C LOL

Capacity 1.0 t | Series 4589

### Back-friendly picking on two pallets

- Long load arms for order picking on two pallets
- Maximum speed of 12 km/h for fast load transport
- Pedestrian function for external vehicle control
- Liftable driver's platform for first and second level order picking
- Initial lift for easier transport over ramps and uneven surfaces

# TECHNICAL DATA (According to VDI 2198)

|                  |        |                                                       |            |                                           |
|------------------|--------|-------------------------------------------------------|------------|-------------------------------------------|
| Characteristics  | 1.1    | Manufacturer                                          |            | LINDE                                     |
|                  | 1.2    | Model                                                 |            | N20 C LoL                                 |
|                  | 1.2a   | Series                                                |            | 4589                                      |
|                  | 1.3    | Drive                                                 |            | Electric                                  |
|                  | 1.4    | Operator type                                         |            | Stand-on                                  |
|                  | 1.5    | Rated capacity / rated load                           | Q (t)      | 2.0 / 1.0 on main lift                    |
|                  | 1.6    | Load centre distance                                  | c (mm)     | 1248 / 600 on main lift <sup>1)</sup>     |
|                  | 1.8    | Load distance                                         | x (mm)     | 1910 / 1782 <sup>3)</sup>                 |
|                  | 1.9    | Wheelbase                                             | y (mm)     | 3225 / 3097 <sup>3) 4)</sup>              |
| Weight           | 2.1    | Service weight (including battery)                    | (kg)       | 1657                                      |
|                  | 2.2    | Axle loading, laden front / rear                      | (kg)       | 1629 / 2028                               |
|                  | 2.3    | Axle loading, unladen front / rear                    | (kg)       | 1260 / 397                                |
| Wheels and tyres | 3.1    | Tyres                                                 |            | Polyurethane                              |
|                  | 3.2    | Tyre size, front                                      | (mm)       | 254 × 102                                 |
|                  | 3.3    | Tyre size, rear                                       | (mm)       | 85 × 80                                   |
|                  | 3.4    | Additional wheels (dimensions)                        | (mm)       | 150 × 50                                  |
|                  | 3.5    | Wheels, number front / rear (x=driven wheels)         |            | 1x - 1 / 4                                |
|                  | 3.6    | Tread, front                                          | b10 (mm)   | 474                                       |
|                  | 3.7    | Tread, rear                                           | b11 (mm)   | 370                                       |
| Dimensions       | 4.2    | Height, mast lowered                                  | h1 (mm)    | see table below                           |
|                  | 4.3    | Free lift                                             | h2 (mm)    | see table below                           |
|                  | 4.4    | Lift                                                  | h3 (mm)    | 800                                       |
|                  | 4.5    | Height, mast extended                                 | h4 (mm)    | see table below                           |
|                  | 4.6    | Initial lift                                          | h5 (mm)    | 130                                       |
|                  | 4.8    | Stand height / Seat height (min / max)                | h7 (mm)    | 130                                       |
|                  | 4.9    | Height drawbar in driving position min. / max.        | h14 (mm)   | 1258 <sup>6)</sup>                        |
|                  | 4.10   | Height of wheel arms                                  | h8 (mm)    | 85                                        |
|                  | 4.14   | Stand height, elevated (with lifting platform)        | h12 (mm)   | 1182 / 1197 <sup>9)</sup>                 |
|                  | 4.15   | Forks height, lowered                                 | h13 (mm)   | 91                                        |
|                  | 4.19   | Overall length                                        | l1 (mm)    | 4185 <sup>4)</sup>                        |
|                  | 4.20   | Length to face of forks                               | l2 (mm)    | 1683 <sup>4)</sup>                        |
|                  | 4.21   | Overall width                                         | b1 (mm)    | 822                                       |
|                  | 4.22   | Fork dimensions                                       | s / e / l  | 60 (72 max) / 200 / 1295                  |
|                  | 4.24   | Fork-carriage width                                   | b3 (mm)    | 711                                       |
|                  | 4.25   | Distance between fork-arms                            | b5 (mm)    | 570                                       |
|                  | 4.31   | Ground clearance, laden, below mast                   | m1 (mm)    | 13 / 100 <sup>3)</sup>                    |
|                  | 4.32   | Ground clearance, centre of wheelbase                 | m2 (mm)    | 25 / 155 <sup>3)</sup>                    |
|                  | 4.34   | Aisle width for for pallets 800 × l6 lengthways       | Ast (mm)   | see table                                 |
|                  | 4.34.1 | Aisle width for pallets 1000 x 1200 crossways         | Ast (mm)   | -                                         |
|                  | 4.34.2 | Aisle width for pallets 800 x 1200 lengthways         | Ast (mm)   | -                                         |
|                  | 4.35   | Turning radius                                        | Wa (mm)    | 3591 / 3463 <sup>3) 4)</sup>              |
| Performance      | 5.1    | Travel speed laden / unladen                          | (km / h)   | 9 / 12                                    |
|                  | 5.1.1  | Travel speed laden / unladen, backwards               | (km / h)   | 8 / 10                                    |
|                  | 5.1.2  | Travel speed, autonomous laden / unladen              | (km / h)   | 6                                         |
|                  | 5.2    | Lift speed laden / unladen                            | (m / s)    | 0.159 / 0.253                             |
|                  | 5.3    | Lowering speed laden / unladen                        | (m / s)    | 0.218 / 0.240                             |
|                  | 5.8    | Max. gradeability laden / unladen                     | (%)        | 7 % / 12 % (6.6 %; 5.3 % <sup>12)</sup> ) |
|                  | 5.9    | Acceleration time, laden / unladen                    | (s)        | 6.5 / 5.3                                 |
|                  | 5.10   | Service brake                                         |            | Electromagnetic                           |
|                  | 6.1    | Drive motor, rating S2 = 60 min                       | (kW)       | 3                                         |
|                  | 6.2    | Lift motor, rating at S3                              | (kW)       | 2.2 / 5 %                                 |
| Drive            | 6.3    | Battery according to DIN 43531 / 35 / 36; A, B, C, no |            | no                                        |
|                  | 6.4    | Battery voltage / nominal capacity K5                 | (V) / (Ah) | 24 / 345 - 465                            |
|                  | 6.5    | Battery weight ± 5 %                                  | (kg)       | 402                                       |
|                  | 6.6    | Energy consumption according to DIN EN 16796          | (kWh / h)  | 0.39                                      |
|                  | 6.6.2  | CO <sup>2</sup> equivalent emissions                  | (kg / h)   | 0.2                                       |
|                  | 6.7    | Turnover output according to VDI 2198                 | (t / h)    | 129                                       |
|                  | 6.8    | Turnover efficiency according to VDI 2198             | (t / kWh)  | 67.9                                      |
|                  | 8.1    | Drive control                                         |            | AC control                                |
| Others           | 10.7   | Sound level at driver's ear                           | (dB(A))    | < 70                                      |

2) With forks lenght 2390 mm / x = 1615 mm / pull bar version; for other forks dimension see table in Linde World  
3) With load arms or forks raised  
4) With lifting platform + 50 mm  
5) With tray 4Pz + 114 mm  
7) With lifting platform option standard version + 15 mm; with lifting platform option damped version + 30 mm

8) With lifting platform option standard version + 72 mm; with lifting platform option damped version + 87 mm; with tiller adjustment option, h14 setting range = + 89 mm / - 19 mm  
9) With lifting platform option standard / damped version  
11) Faster truck version available as optional: 10 km / h laden (except for trucks with Li-ION battery) / 14 km / h unladen

12) Faster truck version available as optional: 14 km / h unladen  
13) With fork length 2390 mm; for other fork dimensions, the geometric limit lies between 6.6% (fork length 3100mm) and 10.7% (fork length 990 mm  
14) For the geometric limit on unrounded edge slope, see table in Linde World



# MAST TABELLE

## STANDARD MAST (in mm)

| Series              | 1500                |                     |                      |                     |
|---------------------|---------------------|---------------------|----------------------|---------------------|
| Lift                | h3: 800             |                     | h3: 1580             |                     |
| Height measurements | h1: 1351<br>h3: 800 | h2: 150<br>h4: 1676 | h1: 1351<br>h3: 1580 | h2: 150<br>h4: 2066 |
| Model               |                     |                     |                      |                     |
| N20 C LoL           | ●                   |                     | ○                    |                     |

● Standard equipment      ○ Optional equipment

**h1:** Height of mast, lowered      **h3:** Lift      **h4:** Height of mast, extended



# STANDARD AND OPTIONAL EQUIPMENT

| Model/Equipment             |                                                                                                                                                  | N20 C LoL |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Safety                      | Front chassis protections                                                                                                                        | ○         |
|                             | Linde BlueSpot™                                                                                                                                  | ○         |
|                             | Front LED stripes                                                                                                                                | ○         |
|                             | Flashing beacon                                                                                                                                  | ○         |
|                             | Front panoramic mirror                                                                                                                           | ○         |
|                             | Automatic speed reduction in curves                                                                                                              | ●         |
|                             | Rear feet protection                                                                                                                             | ○         |
|                             | Key switch                                                                                                                                       | ●         |
|                             | Log PIN code                                                                                                                                     | ○         |
| Service                     | CAN bus technology                                                                                                                               | ●         |
| Digitalisation              | Data Transmission online                                                                                                                         | ○         |
|                             | Data Transmission Wifi                                                                                                                           | ○         |
|                             | Linde connect:desk - local fleet management with different functional modules                                                                    | ○         |
|                             | Linde connect:cloud - fleet management as a service (hosted version)                                                                             | ○         |
| Operation/<br>Load Handling | Inching control (forward only or forward/backward)                                                                                               | ○         |
|                             | Rear initial lift control                                                                                                                        | ○         |
|                             | Low Speed if initial lift low                                                                                                                    | ○         |
|                             | Pallet locking device                                                                                                                            | ○         |
|                             | Initial lift electrical stop sensor                                                                                                              | ●         |
|                             | Load backrest 1450 mm and 1700 mm                                                                                                                | ○         |
| Enviro-<br>ment             | Cold store -35 °C (in/ out)                                                                                                                      | ○         |
| Workplace                   | Raising platform                                                                                                                                 | ○         |
|                             | Platform with damping mat                                                                                                                        | ●         |
|                             | Air-damped platform                                                                                                                              | ○         |
|                             | Height adjustable Linde Steering Wheel incl. mast commands                                                                                       | ○         |
|                             | Basic rounded display                                                                                                                            | ●         |
|                             | Multifunction colored display hourmeter, maintenance indication, battery discharge indicator and internal fault code indication                  | ○         |
|                             | Fixed roundly-shaped backrest equipped with handle                                                                                               | ●         |
|                             | Height adjustable backrest incl. foldable seating support                                                                                        | ○         |
|                             | Cushioned knee protection and foldable leg rest step                                                                                             | ○         |
|                             | Front accessory bar - Low / high                                                                                                                 | ○         |
|                             | Rear accessory bar - Low / high                                                                                                                  | ○         |
|                             | Support data terminal and power supply cable 24 V                                                                                                | ○         |
|                             | Support clipboard DIN A4                                                                                                                         | ○         |
|                             | Support for scanner and shrink wrap holder                                                                                                       | ○         |
|                             | Workstation with A4 clip integrated                                                                                                              | ●         |
|                             | Dashboard with incorporated storage compartment                                                                                                  | ○         |
| Attache-<br>ment/ Forks     | Fork carriage length: 2548 mm with width of 542 mm                                                                                               | ●         |
|                             | Overhang: 592 mm                                                                                                                                 | ●         |
| Axles and Tyres             | Drive wheel Heavy duty                                                                                                                           | ●         |
|                             | Drive wheel High grip                                                                                                                            | ○         |
|                             | Tandem load wheels polyurethane (greaseable)                                                                                                     | ○         |
|                             | Single polyurethane castor wheels                                                                                                                | ○         |
|                             | Tandem polyurethane castor wheels                                                                                                                | ●         |
|                             | Tandem polyurethane greaseable castor wheels                                                                                                     | ○         |
| Drive and<br>Brake-System   | Power assisted steering                                                                                                                          | ●         |
|                             | 3 kW AC motor (maintenance free)                                                                                                                 | ●         |
|                             | Electromagnetic braking system                                                                                                                   | ●         |
|                             | Battery compartment, vertical change 3 PzS (345 Ah/ 465 Ah)                                                                                      | ●         |
|                             | Battery compartment, vertical change 4 PzS (560 Ah/ 620 Ah)                                                                                      | ○         |
|                             | Battery compartment, lateral change 3 PzS (345 Ah/ 375) and 4 PzS (500 Ah), incl. ergonomic lever and metal rollers                              | ○         |
|                             | Battery compartment, lateral change 3 and 4 PzS high incl. a simple battery un/locking system                                                    | ○         |
|                             | Li-ION technology available - different battery capacities depending of the model with laterally or vertically mounted opportunity charging plug | ○         |
|                             | Battery compartment, lateral change 3 PzS and 4 PzS for competitor batteries                                                                     | ○         |
|                             | Integrated charger for lead acid and Li-ION batteries                                                                                            | ○         |

● Standard equipment      ○ Optional equipment

# CHARACTERISTICS



Automatic cornering assistant

## Safety

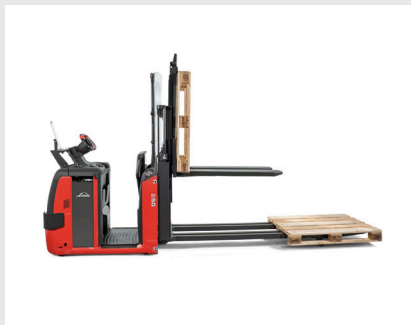
- Automatic cornering assistant ensures safe driving in bends
- Separate braking systems ensure safe braking to suit the environment and load
- Low speed with lowered fork protects the environment
- Dead man's switch ensures maximum safety in hazardous situations
- Special vehicle design protects feet from injury



Mast controls located on both sides of backrest

## Ergonomics

- Spacious access from both sides facilitates stepping in and out of the truck
- Low entry height minimizes physical strain
- Mast and pedestrian control on both sides simplify order picking
- Height-adjustable Linde Steering Wheel and adjustable backrest ensure back-friendly work
- Damped platform protects against shocks and vibrations



Pallet locking device for safe and consecutive preparation

## Handling

- Powerful 3 kW three-phase AC motor enables top speeds of up to 12 km/h
- High agility ensures maneuverability in the tightest of spaces
- Pallet locking device facilitates releasing of the second empty pallet to continue the picking
- On-board charger ensures optimum charging of the battery
- Lead-acid or lithium-ion batteries increase vehicle availability
- Controls directly on the Linde Steering Wheel for intuitive operation
- Mast command integrated on left side of the steering and on both sides of the rear part



Easy access to all components

## Service

- Low-maintenance design ensures high truck availability
- Adjustment of the brakes is not necessary
- Service check only after 1000 operating hours
- Free access to all important vehicle components
- Clearly arranged cable harnesses for fast service
- CAN bus connection ensures simple service processes

Presented by:

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.



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