



## Order Pickers

# N20 D

Capacity 1.0 t | Series 1115

PB

ION

H2

### Powerful double-deck order picker

- Thanks to the double forks, two pallets can be loaded and transported simultaneously
- Ergonomic lift enables the operator to pick even heavy goods at an ergonomic height
- Independent support of each pallet is ideal for transporting heavy and pressure-sensitive goods
- Fully suspended operating platform protects against shocks and vibrations
- Operator's platform in front of the battery ensures maximum manoeuvrability and a clear view when entering cross-aisles

# STANDARD AND OPTIONAL EQUIPMENT

Manufacturer's type designation/Equipment		N20 D
Safety	Front cast steel bumper	●
	Front rubber protection (mounted on the cast steel bumper)	○
	Linde BlueSpot – optical warning light for pedestrians and other operators	○
	Linde Curve Assist – automatic driving speed reduction when cornering	●
	Front foot protection	○
	Mast stop landing (300 mm)	●
	Key switch	●
	PIN code log-on	○
Service	CAN bus technology	●
Digitalisation	Linde connect:desk – local fleet management with different functional modules	○
	Linde connect:ac access control – via PIN or RFID	○
	Data transmission WiFi	○
	Data transmission online	○
	Linde connect:dt crash detection – electronic damage monitor	○
	Linde connect:an usage analysis – digital usage analysis	○
	Bluetooth USB stick	○
	Linde connect:dt trouble codes – automated error code transmission from truck	○
Operation/ Load Handling	Inching control (forward only or forward/backward)	○
	Rear initial and mast lift control	●
	Low speed if initial lift is low	●
	Initial lift electrical stop sensor	●
	Soft landing of forks	○
	Mast pressure sensor	●
	Load backrest 1000 mm	○
Environment	Cold store protection -35°C (in/out) – with non-slip steel platform	○
Workplace	Fully suspended operator's compartment – both standing platform and steering unit are suspended	●
	Height adjustable Linde Steering Wheel	○
	Knee protection	●
	Multifunction colour display hour meter, maintenance indication, battery discharge indicator and internal fault code indication	●
	Fixed operator's backrest	●
	Height adjustable backrest incl. folding seat support	○
	Front bow	○
	Vertical central pole	○
	Support for data terminal and power supply cable 24 V	○
	Support for DIN A4 clipboard 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 length: 1150 mm	●
	Load end overhang (distance between the load wheels and the fork tips): 188 mm	●
Axles and Tyres	Drive wheel, polyurethane	●
	Drive wheel, cushion rubber, non-marking or wet grip	○
	Single load wheels, polyurethane	●
	Tandem load wheels, polyurethane (greasable)	○
	Standard castor wheel	●
Drive and Brake System	Electromagnetic braking system	●
Energy	Battery compartment, side change 3 PzS (345 Ah/465 Ah) – easy and quick change with ergonomic lever and roller bed	●
	Battery compartment, side change 4 PzS (460 Ah/620 Ah) – easy and quick change with ergonomic lever and roller bed	○
	Battery compartment, Li-ION battery incl. side plug for opportunity charging	○
	Li-ION 24 V-Charger	○
	Linde HyPower Fuel Cell 24 V – easy and quick change with roller bed	○

● Standard equipment

○ Optional equipment

# MAST TABLES

## STANDARD MAST (in mm)

Lift	h3: 1574		h3: 1724		h3: 1924	
Height measurements	h1: 1240	h1#: 1315	h1: 1315	h1#: 1390	h1: 1415	h1#: 1490
	h2: 150	h4: 2094	h2: 150	h4: 2244	h2: 150	h4: 2444
	h5: 115		h5: 115		h5: 115	
Manufacturer's type designation						
N20 D	○		○		○	

○ Optional equipment

**h1:** Height of mast, lowered

**h3:** Lift

**h1#:** Closed height (with free lift at 150 mm)

**h4:** Height of mast, extended

**h2:** Free lift

**h5:** Initial lift



# TECHNICAL DATA (according to VDI 2198)

Characteristics	1.1	Manufacturer		Linde MH	
	1.2	<b>Manufacturer's type designation</b>		<b>N20 D</b>	
	1.2.a	Series		1115-00	
	1.3.	Power unit		Battery	
	1.4	Operation		Preparation	
	1.5	Load capacity/load, main lift only; main lift/initial lift; initial lift only	Q (t)		1.2; 0.8/1.2; 2.0 <sup>1)</sup>
	1.6	Load centre	c (mm)		600
	1.8	Load distance, centre of drive axle to fork	x (mm)		944/874 <sup>2)3)</sup>
	1.9	Wheelbase	y (mm)		1611/1541 <sup>2)4)</sup>
Weights	2.1	Service weight	kg	1417	
	2.2	Axle loading, laden front/rear	kg	1560/1851	
	2.3	Axle loading, unladen front/rear	kg	1152/265 <sup>2)</sup>	
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		R + P/P; P + P/P	
	3.2	Tyre size, front		ø 254 × 102	
	3.3	Tyre size, rear		2x ø 85 × 60 (ø 85 × 85) <sup>5)</sup>	
	3.4	Additional wheels		2x ø 140 × 50	
	3.5	Wheels, number front/rear (x = driven)		1x + 1/2 (1x + 1/4) <sup>5)</sup>	
	3.6	Track width, front	b10 (mm)		491
	3.7	Track width, rear	b11 (mm)		380
Dimensions	4.2	Height of mast, lowered	h1 (mm)	1415 <sup>6)</sup>	
	4.3	Free lift	h2 (mm)	150 <sup>6)</sup>	
	4.4	Lift	h3 (mm)	1924 <sup>6)</sup>	
	4.5	Height of mast, extended	h4 (mm)	2444 <sup>6)</sup>	
	4.6	Initial lift	h5 (mm)	115	
	4.8	Seat height relating to SIP/stand height	h7 (mm)	867/000	
	4.10	Height of wheel arms	h8 (mm)	80	
	4.15	Height at the end of the forks in the lowered position	h13 (mm)	86	
	4.19	Overall length	l1 (mm)	2717 <sup>6)</sup>	
	4.20	Length to fork face	l2 (mm)	1570 <sup>6)</sup>	
	4.21	Overall width	b1 (mm)	800	
	4.22	Fork dimensions	s/e/l (mm)	71/180/1150	
	4.23	Load arm dimensions	s/e/l (mm)	75/150/1115	
	4.24	Width of fork carriage	b3 (mm)	780	
	4.25	Width over forks	b5 (mm)	560	
	4.26	Internal width of the load arm	b4 (mm)	255	
	4.31	Ground clearance, below mast	m1 (mm)	20/145 <sup>2)</sup>	
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	20/145 <sup>2)</sup>	
	4.33	Load dimensions b12 × l6	b12 × l6 (mm)	800 × 1200 lengthwise	
	4.34	Aisle width with predetermined load dimensions	Ast (mm)	3063/3038 <sup>4)7)</sup>	
4.34.1	Aisle width with pallet 1000 × 1200 across forks	Ast (mm)	3190/3161 <sup>4)7)</sup>		
4.34.2	Aisle width with pallet 800 × 1200 across forks	Ast (mm)	3277/3242 <sup>4)7)</sup>		
4.35	Turning radius	Wa (mm)	2515/2445 <sup>6)</sup>		
Performance	5.1	Travel speed, laden/unladen	km/h	10/12	
	5.1.1	Travel speed, backward, laden/unladen	km/h	10	
	5.2	Lifting speed, initial lift, laden/unladen	m/s	0.06/0.07 <sup>6)</sup>	
		Lifting speed, main lift, laden/unladen	m/s	0.12/0.2 <sup>6)</sup>	
	5.3	Lowering speed, initial lift, laden/unladen	m/s	0.06/0.08 <sup>6)</sup>	
		Lowering speed, main lift, laden/unladen	m/s	0.3/0.3 <sup>6)</sup>	
	5.8	Climbing ability, laden/unladen	m/s	14/20	
5.9	Acceleration time (10 m), laden/unladen	s	6/4.8		
5.10	Service brake		Electro-hydraulic		
Drive	6.1	Drive motor rating S2 60 min	kW	3.0	
	6.2	Lift motor rating at S3 10%	kW	2.2	
	6.3	Battery according to DIN 43535/36 A/B/C/no		45535 (3 PzS lateral change)	
	6.4	Battery voltage/capacity (5 h)	(V/Ah)	24/375	
	6.5	Battery weight (± 10%)	kg	290	
	6.6	Energy consumption according to VDI cycle normalised	kWh/h	1.15	
	6.7	Turnover output according to VDI cycle	t/h	47	
	6.8	Consumption according to turnover output	kWh/h	1.71	
Drive/Lift Mechanism	8.1	Type of drive unit		LAC	
Others	10.7	Sound pressure level LpAZ (at the operator's seat)	dB(A)	< 85	
	10.8	Level of vibration felt by the operator	m/s <sup>2</sup>	0.7	

6) Value for a mast 19245, other value see mast tables

7) Ast = Wa + R + a. Safety distance a = 200 mm

3) Value with a standard mast

4) With battery line 6.3 (+ 75 mm for 4 PzS)

5) Figures in ( ): Truck equipped with tandem load wheels

1) Pallet truck capacity on the fork arms, with initial lift option

2) Low/high position fork arm





# CHARACTERISTICS



Linde BlueSpot

## Safety

- Rounded edges of steel chassis minimises risks while operating
- Automatic speed reduction in curves for safe travel through the warehouse
- Operator's position in front of the battery provides optimum all-round view of the warehouse environment
- Robust steel bumper protects truck chassis and operating platform
- Additional options such as front LED and Linde BlueSpot lights maximise safety



Low step-in height

## Ergonomics

- Low entry height platform of only 137 mm makes frequent on/off access easy
- Inching buttons make it easy to move up one of two pallet positions for the next pick
- Fully suspended operator's compartment reduces transmission of vibrations and shocks to the operator
- An additional rear handle gives optimum support when reversing or when stepping onto the truck



Intuitive Linde Steering Wheel

## Handling

- Ergonomic lift allows operator to fill two pallets simultaneously and transport pressure-sensitive goods separately
- 3 kW three-phase AC motor for effective acceleration to a top speed of 12 km/h
- Initial lift facilitates operation over ramps and uneven surfaces
- Lead-acid or lithium-ion batteries are available as alternatives to suit the application
- Adjustable Linde Steering Wheel provides intuitive operation and quick overview of key vehicle functions



Front cast steel bumper

## Service

- Up to 1000 operating hours between service checks
- Maintenance-free three-phase AC technology and adjustment-free brakes reduce service costs
- Clearly arranged cable harnesses and cables for easy and quick maintenance
- Vehicle parameters can be checked via CAN bus connection to engineer's laptop
- Robust cast steel bumper on the front protects the operator's compartment and reduces collision damage

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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