

# Order Picker N20 D N20 D HP

Capacity 1.0 t | Series 1115

### Powerful double-deck order picker

- ightarrow Thanks to the double forks, two pallets can be loaded and transported simultaneously
- $\rightarrow$  Ergonomic lift enables the operator to pick even heavy goods at a height that is gentle on the back
- ightarrow Separate levels are ideal for transporting heavy and pressure-sensitive goods
- $\rightarrow$  Fully suspended operating platform protects against shocks and vibrations while driving
- $\rightarrow$  Operator's platform in front of the battery ensures maximum maneuverability and a clear view of the warehouse environment



## TECHNICAL DATA (According to VDI 2198)

1.1	Manufacturer		Linde	Linde
1.2	Model		N20 D	N20 D HP
1.2.a	Series		1115-00	1115-00
1.3.	Power Unit		Battery	Battery
1.4	Operation		Preparation	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>	1.2; 0.8/1.2; 2.0 1)
1.6	Load centre	c (mm)	600	600
1.8	Axle centre to fork face	x (mm)	944/874 2) 3)	944/874 2) 3)
1.9	Wheelbase	y (mm)	1611/1541 <sup>2) 4)</sup>	1611/1541 <sup>2) 4)</sup>
2.1	Service weight	(kg)	1417	1417
2.2	Axle load with load, front/rear	(kg)	1560/1851	1503/1914
2.3	Axle load without load, front/rear	(kg)	1152/265 2)	1105/312 <sup>2)</sup>
3.1	Tyres rubber, SE, pneumatic, polyurethane		R + P/P; P + P/P	R + P/P; P + P/P
3.2	Tyre size, front		ø 254 x 102	ø 254 x 102
3.3	Tyre size, rear		2x ø 85 x 60 (ø 85 x 85) <sup>5)</sup>	2x ø 85 x 60 (ø 85 x 85) 5
3.4	Additional wheels		2x ø 140 x 50	2x ø 125 x 60
3.5	Wheels, number front/rear (x = driven)		$1x + 1/2 (1x + 1/4)^{5}$	$1x + 2/2 (1x + 2/4)^{5}$
3.6	Track width, front	b10 (mm)	491	572
3.7	Track width, rear	b11 (mm)	380	380
4.2	Height of mast, lowered	h1 (mm)	1415 6)	1415 6)
4.3	Free lift	h2 (mm)	150 6)	150 6)
4.4	Lift	h3 (mm)	1924 6)	1924 6)
4.5	Height of mast, extended	h4 (mm)	2444 6)	2444 6)
4.6	Initial lift	h5 (mm)	115	115
4.8	Height of seat/stand on platform	h7 (mm)	867/000	867/000
4.10	Height of wheel arms	h8 (mm)	80	80
4.15	Height at the end of the forks in the lowered position	h13 (mm)	86	86
4.19	Overall length	l1 (mm)	2717 4)	2717 4)
4.20	Length to fork face	l2 (mm)	1570 4)	1570 <sup>4)</sup>
4.21	Overall width	b1 (mm)	800	800
4.22	Fork dimensions	s/e/l (mm)	71/180/1150	71/180/1150
4.23	Load arm dimensions	s/e/l (mm)	75 / 150 / 1115	75/150/1115
4.24	Width of fork carriage	b3 (mm)	780	780
4.25	Width over forks	b5 (mm)	560	560
4.26	Internal width of the load arm	b4 (mm)	255	255
4.31	Ground clearance, below mast	m1 (mm)	20/145 2)	20/145 2)
4.32	Ground clearance, centre of wheelbase	m2 (mm)	20/145 2)	20/145 2)
4.33	Load dimensions b12 x l6	b12 x l6 (mm)	800 x 1200 lengthwise	800 x 1200 lengthwise
4.34	Aisle width with predetermined load dimensions	Ast (mm)	3063/3038 4) 7)	3063/3038 4)7)
4.34.1	Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	3190/3161 4) 7)	3190/3161 4) 7)
4.34.2	Aisle width with pallet 800 x 1200 across forks	Ast (mm)	3277 / 3242 4) 7)	3277/3242 4)7)
4.35	Turning radius	Wa (mm)	2515/2445 4)	2515/2445 <sup>4)</sup>
5.1	Travel speed, with/without load	(km/h)	10/12	10/12
5.1.1	Travel speed, backward, with/without load	(km/h)	10	10
5.2	Lifting speed, initial lift, with/without load	(m / s)	0.06/0.07 %	0.06/0.07 6)
5.2	Lifting speed, main lift, with/without load	(m / s)	0.12/0.2 6)	0.12/0.2 6)
53	Lowering speed, initial lift, with/without load	(m / s)	0.06/0.08 6)	0.06/0.08 6)
5.3	Lowering speed, main lift, with/without load	(m / s)	0.3/0.3 %	0.3/0.3 6)
5.8	Climbing ability, with/without load	(m / s)	14/20	14/20
5.9	Acceleration time (10 m), with/without load	(s)	6/4.8	6/4.8
5.10	Service brake		Electro-hydraulic	Electro-hydraulic
6.1	Drive motor rating S2 60 min	(kW)	3.0	3.0
6.2	Lift motor rating at S3 10 %	(kW)	2.2	2.2
6.3	Battery according to DIN 43535/36 A/B/C/no		45535 (3 PzS Lateral Change)	45535 (3 PzS Lateral Change)
6.4	Battery voltage/apacity (5 h)	(V/Ah)	24/375	24/375
6.5	Battery weight (± 10 %)	(kg)	290	290
6.6	Energy consumption according to VDI cycle normalized	(kWh/h)	1.15	1.15
6.7	Turnover output according to VDI cycle	(T/h)	47	47
6.8	Consumption according to turnover output	(kWh/h)	1.71	1.71
8.1	Type of drive control		LAC	LAC
10.7	Noise level at operator's ear	(dB(A))	< 85	< 85

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

Low/high position fork arm

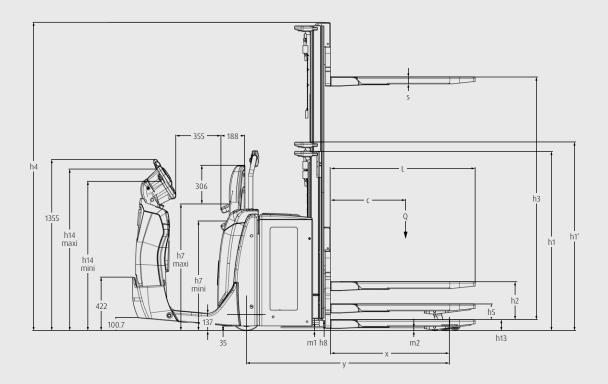
3) Value with a Standard mast

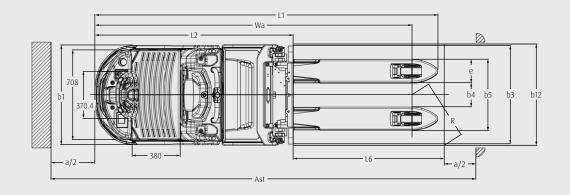
5) Figures in ( ): Truck equipped with tandem load wheels

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

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

<sup>4)</sup> With battery line 6.3 (+ 75 mm for 4 PzS)





## **MAST TABLES**

## STANDARD MAST (in mm)

Lift	h3: 1574	h3: 1724	h3: 1924
Height measurements	h1: 1240 h1#: 1315 h2: 150 h3: 1574 h4: 2094 h5: 115	h1: 1315 h1#: 1390 h2: 150 h3: 1724 h4: 2244 h5: 115	h1: 1415h1#: 1490h2: 150h3: 1924h4: 2444h5: 115
Model			
N20 D	0	0	0
N20 D HP	0	0	0

○ Optional equipment – Not available

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

h1#: Closed height (with free lift at 150 mm)h4: Height of mast, extended

h2: Free lifth5: Initial lift



# **STANDARD AND OPTIONAL EQUIPMENT**

Front casted steel bumper     0       Front rubber protection (mounted on the casted steel bumper)     0       Linde BlueSpot™     0       Automatic Speed reduction when cornering     0       Front feet potection     0       Mast stop landing (300 mm)     0       Key switch     0       Log in PIN code     0       CAN bus technology     0       Linde connect     0       ac: access control PIN     0       ac: access control RFID     0       Data transfer Wifi     0       Data transfer Online     0       dt: crash detection     0       an: usage analysis     0       Bluetooth USB Stick     0       dt: trouble codes     0       Inching control (forward only or forward/backward)     0       Rear initial and mast lift control     0       Low Speed if initial lift low     0       Initial III detectial stop sensor     0       Soft landing on forks     0		N20 D HP
Front rubber protection (mounted on the casted steel bumper)       0         Linde BlueSpot <sup>™</sup> 0         Automatic speed reduction when cornering       0         Front feet potection       0         Mast stop landing (300 mm)       0         Key switch       0         Linde connect       0         ac: access control PIN       0         ac: access control PIN       0         ac: access control PIN       0         dt: crash detection       0         an: usage analysis       0         Bluetooth USB Stick       0         dt: trouble codes       0         minital lift control       0         Initial lift electrical stop sensor       0         Soft landing on forks       0		
Linde BlueSpot**       O         Automatic speed reduction when cornering       O         Front feet potection       O         Mast stop landing (300 mm)       Key switch         Log in PIN code       O         Output       CAN bus technology         Linde connect       O         ac: access control PIN       O         ac: access control PIN       O         ac: access control RFID       O         Data transfer Online       O         dt: crash detection       O         an: usage analysis       O         Bluetonth USB Stick       O         Inching control (forward only or forward/backward)       O         Rear initial and mast lift control       O         Initial lift electrical stop sensor       O         Soft landing on forks       O		
Automatic speed reduction when cornering       0         Front feet potection       0         Mast stop landing (300 mm)       0         Key switch       0         Log in PIN code       0         CAN bus technology       0         Linde connect       0         ac: access control PIN       0         ac: access control RFID       0         Data transfer Wifi       0         Data transfer Online       0         dt: crash detection       0         an: usage analysis       0         Bluetooth USB Stick       0         Inching control (forward only or forward/backward)       0         Rear initial and mast lift control       0         Low Speed if initial lift low       0         Initial lift electrical stop sensor       0         Soft landing on forks       0         Mast pressure sensor       0		
Mast stop landing (300 mm)         Mast stop landing (300 mm)           Key switch         Color           Log in PIN code         Color           CAN bus technology         Color           Linde connect         Color           ac: access control PIN         Color           ac: access control PIN         Color           dat transfer Wifi         Color           Data transfer Online         Color           dt: crash detection         Color           an: usage analysis         Color           Bluetorth USB Stick         Color           dt: trouble codes         Color           inching control (forward only or forward/backward)         Color           Notital lift electrical stop sensor         Color           Soft landing on forks         Color           Mast pressure sensor         Color		
Mast stop landing (300 mm)         Mast stop landing (300 mm)           Key switch         0           Log in PIN code         0           CAN bus technology         0           Linde connect         0           ac: access control PIN         0           ac: access control PIN         0           ac: access control RFID         0           Data transfer Wifi         0           Data transfer Online         0           dt: trash detection         0           an: usage analysis         0           Bluetooth USB Stick         0           dt: trouble codes         0           inching control (forward only or forward/backward)         0           Intal lift electrical stop sensor         0           Soft landing on forks         0           Mast pressure sensor         0		
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ac: access control RFID       ac         Data transfer Wifi       ac         Data transfer Online       ac         dt: crash detection       ac         an: usage analysis       ac         Bluetooth USB Stick       ac         dt: trouble codes       ac         Inching control (forward only or forward/backward)       ac         Rear initial and mast lift control       ac         Low Speed if initial lift low       ac         Soft landing on forks       ac         Mast pressure sensor       ac	0 0 0 0 0 0 0	0 0 0
Data transfer Wifi       0         Data transfer Online       0         dt: crash detection       0         an: usage analysis       0         Bluetooth USB Stick       0         dt: trouble codes       0         Inching control (forward only or forward/backward)       0         Rear initial and mast lift control       0         Low Speed if initial lift low       0         Soft landing on forks       0         Mast pressure sensor       0	0 0 0 0 0 0	0 0 0
Air: Usage analysis       Comparison         Bluetooth USB Stick       Comparison         dt: trouble codes       Comparison         Inching control (forward only or forward/backward)       Comparison         Rear initial and mast lift control       Comparison         Low Speed if initial lift low       Comparison         Initial lift electrical stop sensor       Comparison         Soft landing on forks       Comparison         Mast pressure sensor       Comparison	0 0 0 0 0	0
Air: Usage analysis       Comparison         Bluetooth USB Stick       Comparison         dt: trouble codes       Comparison         Inching control (forward only or forward/backward)       Comparison         Rear initial and mast lift control       Comparison         Low Speed if initial lift low       Comparison         Initial lift electrical stop sensor       Comparison         Soft landing on forks       Comparison         Mast pressure sensor       Comparison	0 0 0 0	0
Ait: Usage attatysis       Comparison         Bluetooth USB Stick       Comparison         dt: trouble codes       Comparison         Inching control (forward only or forward/backward)       Comparison         Rear initial and mast lift control       Comparison         Low Speed if initial lift low       Comparison         Initial lift electrical stop sensor       Comparison         Soft landing on forks       Comparison         Mast pressure sensor       Comparison	0 0 0	
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dt: trouble codes       0         Inching control (forward only or forward/backward)       0         Rear initial and mast lift control       0         Low Speed if initial lift low       0         Initial lift electrical stop sensor       0         Soft landing on forks       0         Mast pressure sensor       0	0	0
Inching control (forward only or forward/backward)     Inching control (forward only or forward/backward)       Rear initial and mast lift control     Inching control (forward only or forward/backward)       Low Speed if initial lift low     Inching control       Initial lift electrical stop sensor     Inching on forks       Mast pressure sensor     Income	0	0
Rear initial and mast lift control     Image: Control initial lift low       Low Speed if initial lift low     Image: Control initial lift low       Initial lift electrical stop sensor     Image: Control initial lift low       Soft landing on forks     Image: Control initial lift low       Mast pressure sensor     Image: Control initial lift low		0
Low Speed if initial lift low     Initial lift electrical stop sensor       Soft landing on forks     Initial lift electrical sensor       Mast pressure sensor     Initial lift electrical sensor		0
max pressure sensor	•	•
most pressure sensor	•	•
max pressure sensor	•	•
max pressure sensor	0	0
Load backsost 1000 mm	•	•
Load backrest 1000 mm	0	0
Cold store -35°C (in/out)	0	0
Fully suspended operator compartment	•	•
Height adjustable Linde Steering Wheel	0	0
Knee protection	•	•
Multifunction coloured display hour meter, maintenance indication, battery discharge indicator and internal fault code indication	•	•
e Eixed roundly shaped backrest	•	•
Height adjustable backrest incl. foldable seating support	0	0
	0	0
ventral central pole	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	•	
Fork length: 1150 mm	•	•
Fork carriage: 560 mm     0       Fork length: 1150 mm     0       Overhang: 188 mm     0	•	•
	•	•
	0	0
Single load wheels polyurethane	•	•
Single load wheels polyurethane       Image: Constraint of the spin of the	0	0
Standard castor wheel	•	-
Castor wheel with spring and cylinder	_	•
Hydraulic castor wheels	_	0
c Electromagnetic braking system	•	•
	•	
Battery compartment, side change 3 PzS (345 Ah/465 Ah), incl. ergonomic lever and metal rollers		0
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	0	0
Battery compartment, side change 3 PzS (345 Ah/465 Ah), incl. ergonomic lever and metal rollers       0         Battery compartment, side change 4 PzS (460 Ah/620 Ah), incl. ergonomic lever and metal rollers       0         Battery compartment, side change 4 PzS (460 Ah/620 Ah), incl. ergonomic lever and metal rollers       0         Battery compartment, Li-ION battery 4.5 kWh (205 Ah)/9.0 kWh (410 Ah) incl. side plug for opportunity charging       0	0	0

• Standard equipment  $\bigcirc$  Optional equipment – Not available

## **CHARACTERISTICS**



Linde BlueSpot™



Low step in height



Intuitive Linde steering wheel



Front casted steel bumper

#### Safety

- $\rightarrow$  Rounded edges of steel chassis to minimize risks while driving
- $\rightarrow$  Automatic speed reduction in curves for safe travel through the warehouse
- $\rightarrow$  Special position of the operator's platform in front of the battery gives the driver an optimum all-round view of the warehouse environment
- ightarrow Robust steel bumper protects vehicle frame and operating platform
- ightarrow Additional options such as front LED and Linde BlueSpot<sup>m</sup> maximize safety

#### Ergonomics

- $\rightarrow$  Low entry height of only 137 mm makes it easier to step in and out of the truck frequently
- $\rightarrow$  For short distances, the operator can comfortably control the vehicle from both sides using the optional pedestrian function
- $\rightarrow$  Fully suspended operator's compartment reduces vibrations and shocks transmitted to steering wheel and platform
- $\rightarrow$  An additional rear handle ensures optimum support when reversing or when stepping onto the truck

#### Handling

- $\rightarrow$  Ergonomic lift allows operator to fill two pallets simultaneously and transport pressure sensitive goods separately
- ightarrow 3 kW three-phase AC motor for effective acceleration to a top speed of 12 km/h
- ightarrow Initial lift facilitates transport over ramps and uneven surfaces
- $\rightarrow$  Depending on application requirements, lead-acid or optionally lithium-ion batteries are available
- $\rightarrow$  Adjustable Linde Steering Wheel provides intuitive operation and quick overview of key vehicle functions

#### Service

- $\rightarrow$  Up to 1000 operating hours without service check
- → Maintenance-free three-phase AC technology and adjustment-free brakes reduce service costs
- ightarrow Clearly arranged cable harnesses and cables for easy and quick maintenance
- $\rightarrow$  Vehicle parameters can be read out via CAN bus connection via laptop
- $\rightarrow$  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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