



Linde Material Handling

*Linde*



# ORDER PICKER N20 C B | N20-25 C | N25 C HP

**CAPACITY 2000 KG – 2500 KG | SERIES 4587**

## **Safety**

The design of the order picker ensures that the operator remains within the truck contours at all times and the rounded shape of the cushioned backrest ensures his comfort. The high front steel bumper ensures also safety for both the operator and the machine. Furthermore, the truck immediately comes to a stop as soon as the travel butterfly is released for optimum safety.

## **Performance**

Powered by a 3 kW AC motor, the N20-N25 C and N25 C HP are able to reach a top speed of 14 km/h, making long transfers highly productive. The inching command ensures efficiency in the picking operation. In addition, the rising platform option is designed to optimize occasional first and second level order picking. A wide range of batteries, including Li-ION technology are available to match any customer application.

## **Comfort**

A perfect interface between operator and truck is assured with the new height adjustable Linde Steering Wheel which guarantees effortless driving and manoeuvring. A wide operator's compartment

and low step-in height ensures efficient picking from either side while the optional pneumatic damper protects the operator's body from shocks, especially when driving on rougher floors.

## **Reliability**

The trucks are designed, built and tested for consistent reliability in demanding applications. The motor, sub-components and electronics are all protected within the robust chassis structure, which can be further reinforced by different front chassis protection options. These features guarantee a longer operating life, whilst delivering safe, efficient, and productive load handling.

## **Service**

Efficiency at work and when servicing with cost effective maintenance routines are important. With service intervals of up to 1000 hours and a computerized diagnostic system via CAN-bus, maintenance interventions are minimal and operating costs are reduced. Easy accessibility to all components thanks to the front panel and the maintenance free AC technology play an additional part in maximizing uptime.

# TECHNICAL DATA

## ACCORDING TO VDI 2198

			N20C B		N20C	
Characteristics	1.1	Manufacturer		LINDE		LINDE
	1.2	Manufacturer's type designation		<b>N20C B</b>		<b>N20C</b>
	1.3	Drive		Electric		Electric
	1.4	Operator type		Stand-on		Stand-on
	1.5	Rated capacity / rated load	Q (t)	2.0		2.0
	1.6	Load centre distance	c (mm)	1200		1200
	1.8	Load distance, centre of drive axle to fork	x (mm)	1615 <sup>2)</sup>		1615 <sup>2)</sup>
	1.9	Wheelbase	y (mm)	2720 <sup>2) 4)</sup>		2717 <sup>2) 4)</sup>
	Weight	2.1	Service weight (including battery)	(kg)	1178 <sup>2)</sup>	
2.2		Axle loading, laden front/rear	(kg)	1120 / 2058		1120 / 2058
2.3		Axle loading, unladen front/rear	(kg)	897 / 281		897 / 281
Wheels and tyres	3.1	Tyres		Polyurethane		Polyurethane
	3.2	Tyre size, front		230 x 90		254 x 102
	3.3	Tyre size, rear		85 x 100		85 x 100
	3.4	Additional wheels (dimensions)		150 x 50		150 x 50
	3.5	Wheels, number front/rear (x=driven wheels)		1x - 1/2		1x - 1/2
	3.6	Tread, front	b <sub>10</sub> (mm)	478		474
	3.7	Tread, rear	b <sub>11</sub> (mm)	348 (368 / 388 / 498)		348 (368 / 388 / 498)
Dimensions	4.2	Height, mast lowered	h <sub>1</sub> (mm)	-		-
	4.3	Free lift	h <sub>2</sub> (mm)	-		-
	4.4	Lift	h <sub>3</sub> (mm)	130		130
	4.5	Height, mast extended	h <sub>4</sub> (mm)	-		-
	4.6	Initial lift	h <sub>5</sub> (mm)	-		-
	4.8	Stand height // Seat height (min/max)	h <sub>7</sub> (mm)	130 <sup>7)</sup>		130 <sup>7)</sup>
	4.9	Height drawbar in driving position min./max.	h <sub>14</sub> (mm)	1258 <sup>8)</sup>		1258 <sup>8)</sup>
	4.10	Height of wheel arms	h <sub>8</sub> (mm)	-		-
	4.14	Stand height, elevated (with lifting platform)	h <sub>12</sub> (mm)	1182 / 1197 <sup>9)</sup>		1182 / 1197 <sup>9)</sup>
	4.15	Forks height, lowered	h <sub>15</sub> (mm)	85		85
	4.17	Overhang	l <sub>5</sub> (mm)	-		-
	4.19	Overall length	l <sub>1</sub> (mm)	3680 <sup>4)</sup>		3680 <sup>4)</sup>
	4.20	Length to face of forks	l <sub>2</sub> (mm)	1290 <sup>4)</sup>		1290 <sup>4)</sup>
	4.21	Overall width	b <sub>1</sub> (mm)	800		800
	4.22	Fork dimensions	s / e / l	61 (78 max) / 172 / 2390		61 (78 max) / 172 / 2390
	4.24	Fork-carriage width	b <sub>3</sub> (mm)	-		-
	4.25	Distance between fork-arms	b <sub>5</sub> (mm)	520 (540 / 560 / 670)		520 (540 / 560 / 670)
	4.31	Ground clearance, laden, below mast	m <sub>1</sub> (mm)	-		-
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	24 / 154 <sup>3)</sup>		24 / 154 <sup>3)</sup>
	4.34	Aisle width for for pallets 800 x 16 lengthways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World		see table in Linde World
4.34.1	Aisle width for pallets 1000 x 1200 crossways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World		see table in Linde World	
4.34.2	Aisle width for pallets 800 x 1200 crossways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World		see table in Linde World	
4.35	Turning radius	W <sub>3</sub> (mm)	2893 <sup>2)</sup> / 2786 <sup>2) 3) 4) 5)</sup>		2893 <sup>2)</sup> / 2786 <sup>2) 3) 4) 5)</sup>	
Performance	5.1	Travel speed laden/unladen	(km/h)	8 / 10		9 / 12 <sup>11)</sup>
	5.1.1	Travel speed laden/unladen, backwards	(km/h)	7 / 10		8 / 11
	5.2	Lift speed laden/unladen	(m/s)	0.070 / 0.111		0.070 / 0.111
	5.3	Lowering speed laden/unladen	(m/s)	0.084 / 0.067		0.084 / 0.067
	5.8	Max. gradeability laden/unladen	(%)	7 % / 12 % <sup>13) 14)</sup>		7 % / 12 % <sup>13) 14)</sup>
	5.9	Acceleration time, laden/unladen	(s)	6.5 / 5.1		6.1 / 4.8
	5.10	Service brake		Electromagnetic		Electromagnetic
Drive	6.1	Drive motor, rating S2 = 60 min	(kW)	2.3		3
	6.2	Lift motor, rating at S3	(kW)	2.2 / 5 %		2.2 / 5 %
	6.3	Battery according to DIN 43531/35/36; A, B, C, no		no		no
	6.4	Battery voltage / nominal capacity K5	(V) / (Ah)	24 / 345 - 465		24 / 345 - 465
	6.5	Battery weight ± 5 %	(kg)	402		402
	6.6	Energy consumption according to VDI cycle	(kWh)	0.54		0.46
	6.7	Turnover output	(t/h)	-		-
	6.8	Energy consumption at turnover output	(kWh/h)	-		-
Others	8.1	Drive control		AC control		AC control
	10.7	Sound level at driver's ear	(dB(A))	< 70		< 70

<sup>2)</sup> with forks length 2390 mm / x = 1615 mm / pull bar version; for other forks dimension see table in Linde World

<sup>3)</sup> with load arms or forks raised

<sup>4)</sup> with lifting platform + 50 mm

<sup>5)</sup> with tray 4 PzS or Li-ION + 114 mm

<sup>7)</sup> with lifting platform option standard version + 15 mm; with lifting platform option damped version + 30 mm

<sup>8)</sup> 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

<sup>9)</sup> with lifting platform option standard / damped version

<sup>11)</sup> faster truck version available as optional: 10 km/h laden (except for trucks with Li-ION battery) / 14 km/h unladen

<sup>12)</sup> faster truck version available as optional: 14 km/h unladen

<sup>13)</sup> on rounded edge slope with forks / arms raised, if possible

<sup>14)</sup> for the geometric limit on unrounded edge slope, see table in Linde World

# TECHNICAL DATA

## ACCORDING TO VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>N25C</b>	<b>N25C HP</b>
	1.3	Drive		Electric	Electric
	1.4	Operator type		Stand-on	Stand-on
	1.5	Rated capacity / rated load	Q (t)	2.5	2.5
	1.6	Load centre distance	c (mm)	1200	1200
Weight	1.8	Load distance, centre of drive axle to fork	x (mm)	1615 <sup>2)</sup>	1615 <sup>2)</sup>
	1.9	Wheelbase	y (mm)	2717 <sup>2) 4)</sup>	2720 <sup>2) 4)</sup>
	2.1	Service weight (including battery)	(kg)	1203 <sup>2)</sup>	1243 <sup>2)</sup>
	2.2	Axle loading, laden front/rear	(kg)	1188 / 2515	1322 / 2421
	2.3	Axle loading, unladen front/rear	(kg)	906 / 297	942 / 301
	Wheels and tyres	3.1	Tyres		Polyurethane
3.2		Tyre size, front		254 x 102	254 x 102
3.3		Tyre size, rear		85 x 80	85 x 80
3.4		Additional wheels (dimensions)		150 x 50	110 x 60
3.5		Wheels, number front/rear (x=driven wheels)		1x - 1/4	1x - 2/4
3.6		Tread, front	b <sub>10</sub> (mm)	474	547
3.7		Tread, rear	b <sub>11</sub> (mm)	348 (368/388/498)	348 (368/388/498)
Dimensions	4.2	Height, mast lowered	h <sub>1</sub> (mm)	-	-
	4.3	Free lift	h <sub>2</sub> (mm)	-	-
	4.4	Lift	h <sub>3</sub> (mm)	130	130
	4.5	Height, mast extended	h <sub>4</sub> (mm)	-	-
	4.6	Initial lift	h <sub>5</sub> (mm)	-	-
	4.8	Stand height // Seat height (min/max)	h <sub>7</sub> (mm)	130 <sup>7)</sup>	130 <sup>7)</sup>
	4.9	Height drawbar in driving position min./max.	h <sub>14</sub> (mm)	1258 <sup>8)</sup>	1258 <sup>8)</sup>
	4.10	Height of wheel arms	h <sub>8</sub> (mm)	-	-
	4.14	Stand height, elevated (with lifting platform)	h <sub>12</sub> (mm)	1182 / 1197 <sup>9)</sup>	-
	4.15	Forks height, lowered	h <sub>13</sub> (mm)	85	85
	4.17	Overhang	l <sub>5</sub> (mm)	-	-
	4.19	Overall length	l <sub>1</sub> (mm)	3680 <sup>4)</sup>	3680 <sup>4)</sup>
	4.20	Length to face of forks	l <sub>2</sub> (mm)	1290 <sup>4)</sup>	1290 <sup>4)</sup>
	4.21	Overall width	b <sub>1</sub> (mm)	800	800
	4.22	Fork dimensions	s / e / l	61 (78 max) / 172 / 2390	61 (78 max) / 172 / 2390
	4.24	Fork-carriage width	b <sub>3</sub> (mm)	-	-
	4.25	Distance between fork-arms	b <sub>5</sub> (mm)	520 (540/560/670)	520 (540/560/670)
	4.31	Ground clearance, laden, below mast	m <sub>1</sub> (mm)	-	-
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	24 / 154 <sup>3)</sup>	24 / 154 <sup>3)</sup>
	4.34	Aisle width for for pallets 800 x 16 lengthways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World	see table in Linde World
4.34.1	Aisle width for pallets 1000 x 1200 crossways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World	see table in Linde World	
4.34.2	Aisle width for pallets 800 x 1200 crossways (fork raised)	A <sub>31</sub> (mm)	see table in Linde World	see table in Linde World	
4.35	Turning radius	W <sub>3</sub> (mm)	2893 <sup>2)</sup> / 2786 <sup>2) 3) 4) 5)</sup>	2893 <sup>2)</sup> / 2786 <sup>2) 3) 4) 5)</sup>	
Performance	5.1	Travel speed laden/unladen	(km/h)	9 / 12 <sup>12)</sup>	11 / 14
	5.1.1	Travel speed laden/unladen, backwards	(km/h)	8 / 11	8 / 11
	5.2	Lift speed laden/unladen	(m/s)	0.064 / 0.089	0.064 / 0.089
	5.3	Lowering speed laden/unladen	(m/s)	0.068 / 0.066	0.068 / 0.066
	5.8	Max. gradeability laden/unladen	(%)	7 % / 12 % <sup>13) 14)</sup>	7 % / 12 % <sup>13) 14)</sup>
	5.9	Acceleration time, laden/unladen	(s)	6.4 / 4.8	6.2 / 4.8
	5.10	Service brake		Electromagnetic	Electromagnetic
Drive	6.1	Drive motor, rating S2 = 60 min	(kW)	3	3
	6.2	Lift motor, rating at S3	(kW)	2.2 / 5%	2.2 / 5%
	6.3	Battery according to DIN 43531/35/36; A, B, C, no		no	no
	6.4	Battery voltage / nominal capacity K5	(V) / (Ah)	24 / 345 - 465	24 / 345 - 465
	6.5	Battery weight ± 5 %	(kg)	402	402
	6.6	Energy consumption according to VDI cycle	(kWh)	0.52	0.52
	6.7	Turnover output	(t/h)	-	-
	6.8	Energy consumption at turnover output	(kWh/h)	-	-
Others	8.1	Drive control		AC control	AC control
	10.7	Sound level at driver's ear	(dB(A))	< 70	< 70

<sup>2)</sup> with forks length 2390 mm / x = 1615 mm / pull bar version; for other forks dimension see table in Linde World

<sup>3)</sup> with load arms or forks raised

<sup>4)</sup> with lifting platform + 50 mm

<sup>5)</sup> with tray 4 PzS or Li-ION + 114 mm

<sup>7)</sup> with lifting platform option standard version + 15 mm; with lifting platform option damped version + 30 mm

<sup>8)</sup> 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

<sup>9)</sup> with lifting platform option standard / damped version

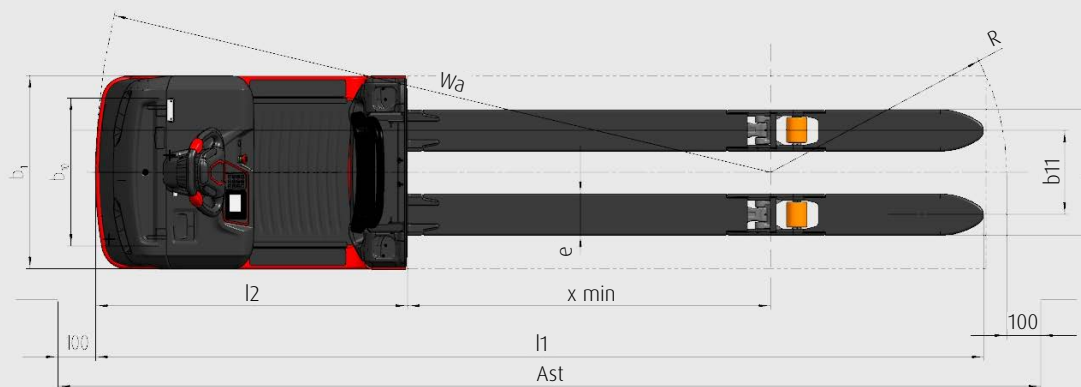
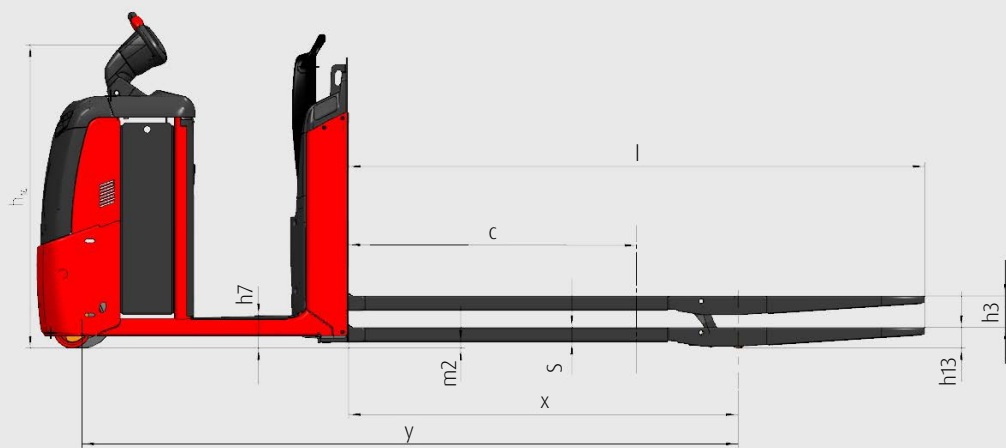
<sup>11)</sup> faster truck version available as optional: 10 km/h laden

(except for trucks with Li-ION battery) / 14 km/h unladen

<sup>12)</sup> faster truck version available as optional: 14 km/h unladen

<sup>13)</sup> on rounded edge slope with forks / arms raised, if possible

<sup>14)</sup> for the geometric limit on unrounded edge slope, see table in Linde World





# STANDARD EQUIPMENT / OPTIONAL EQUIPMENT

## STANDARD EQUIPMENT

Chassis width 800 mm
Rubber platform mat
Anti-slip stripes
Fixed cushioned and roundly shaped backrest equipped with handle
Power assisted steering, adjustable steering resistance
Polyurethane drive wheel
Single polyurethane load wheel
Single polyurethane castor wheel
Hydraulic castor wheels (on the five-point contact HP version)
Workstation with A4 clip integrated
Key switch or PIN code access
Multifunction colored display incl. hour meter, maintenance indication, battery discharge indicator and internal fault code indication
2.3 kW (on N20 C B) and 3 kW AC drive motor (maintenance free)
2.2 kW (5 % rating output) lift motor
CAN-bus technology
Automatic speed reduction in curves
Initial lift electrical stop sensor
Automatic breaking on releasing butterfly switch
Electromagnetic emergency brake acting proportionally to the load weight
Electric horn
Initial lift of 130 mm
Width over fork carriage: 520 mm, 540 mm, 560 mm and 670 mm
Fork carriage length: 990 mm, 1190 mm, 1450 mm, 1600 mm, 1800 mm, 2150 mm and 2390 mm
Vertical battery change in 3 and 4 PzS
Protection -10° C

## OPTIONAL EQUIPMENT

Drive wheels: cushion rubber, synthetic cushion rubber non marking, wet grip
Load wheels: tandem polyurethane, single and tandem polyurethane greaseable
Castor wheels: tandem polyurethane and tandem polyurethane greaseable
Raising platform (except on N25 C HP)
Pneumatic damping of foot platform
Cushioned knee protection and foldable leg rest step
Height adjustable Linde Steering Wheel
Height adjustable cushioned backrest with foldable seating support
Dashboard with incorporated storage compartments
Inching control (forward only or forward/backward) and initial lift
Accessory supports
Support Clipboard DIN A4 and panoramic mirror
Support data terminal and power supply cable 24 V
Support for scanner and shrink wrap holder
Working lamp LED with ON/OFF switch
Electric socket 12 V or USB plug
Other options available on request

### Forks:

Width over fork carriage: 520 mm, 540 mm, 560 mm and 670 mm
Fork carriage length: 2900 mm and 3100 mm
Locking/unlocking of roll cages on fork tip (fork length >1600 mm)
Speed reduction if forks lowered

### Safety:

Front chassis protections
Load Backrest 1290 mm/1875 mm
Linde BlueSpot™, Front LED-stripes, Flashing Beacon

### Environment:

Cold store protection - 35° C
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### Linde Connected Solutions:

ac: access control (PIN or RFID Dual), an: usage analysis, dt: crash detection, tr: trouble code and hr: operating hours
Data transfer online and data transfer WiFi
Bluetooth USB Stick

### Battery:

Lateral battery change 3 PzS/4 PzS low available with an ergonomic battery un/locking with lever and rollers
Lateral battery change 3 PzS/4 PzS high available with a simple battery un/locking system
Lateral battery change 3 PzS/4 PzS for competitor batteries
Built-in charger for lead acid batteries

### Li-ION technology:

4 PzS compartment with 4.5 kWh - 9 kWh (205 Ah - 410 Ah)
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### Li-ION charger:

24 V-Charger v255: 4.5 kWh (full charging time 1 h 30 min) - 9.0 kWh (2 h 40 min)
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# FEATURES

## Optimal load handling

- Four points contact configuration for maximum stability
- High-performance model with five-point contact configuration available for optimised traction (N25 C HP)
- Hydraulic tandem castor wheels, select perfect ratio between stability and traction for constant ground contact (N25 C HP)
- Traction speed from 10 km / h (N20 C B) to 14 km/h (N20-25 C / C HP) unloaded
- Electromagnetic braking initiated by the emergency stop button acts on the drive motor, proportional



## Easy manoeuvring

- Intuitive Linde Steering Wheel, with all functions (horn, initial lift, traction butterflies) easily accessible without losing grip ensures one-hand operation
- Ergonomic and safe driving position
- Self centering steering for faster picking cycles



## Workstation

- Wide, easy access, from either side
- Numerous storage compartments, maximized with optional dashboard for increased storage
- Various optional accessories designed to streamline picking
- Pedestrian command for traction and initial lift



## Productivity at the second level

- Raising platform option to optimize occasional first and second level picking (except on N25 C HP)
- Optional pneumatic damper for optimum comfort
- Wide access of 428 mm
- OptiLift® systems ensures proportional lift and lowering of platform and quiet operation
- Platform lifting command intuitively placed on Linde Steering Wheel for single-hand operation
- Platform lowering with foot switch

## Work in comfort

- Wide platform access of 428 mm and low step in height of 130 mm
- Damped mat or pneumatic damper for reduced vibration levels
- Height adjustable Linde Steering Wheel
- Cushioned, rounded-shape backrest, also available with height adjustment with foldable seating support



## Service Efficiency

- Integrated CAN-bus diagnostic system for faster analysis and shorter service intervals
- All truck parameters are configurable by service technician to suit each individual application
- Rapid and convenient access to main components via front service panel
- Easy access to central drive wheel thanks to service access point (HP model)

## Efficient drive system

- Powerful, high-torque 2.3 kW (N20 C B) and 3 kW AC drive motor
- Moisture and dust-proof maintenance-free motor with up to 7 % gradeability performance fully loaded
- Safe starting on gradients without rollback
- Effortless proportional electric power steering with positive feedback
- Automatic speed reduction when cornering

## Energy for your activity

- Vertical change as standard, optional side change
- Wide range of batteries (low and high) from 345 Ah (3 PzS) to 620 Ah (4 PzS)
- Battery lockings dedicated for competitor batteries
- Ergonomic lever on low batteries

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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