



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.



Here you can find more content via your smartphone: [Linde Augmented Reality App](#)



# 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
Weight	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)	2717 <sup>2) 4)</sup>	2720 <sup>2) 4)</sup>
Wheels and tyres	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
	3.1	Tyres		Polyurethane	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
Dimensions	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)
	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>
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

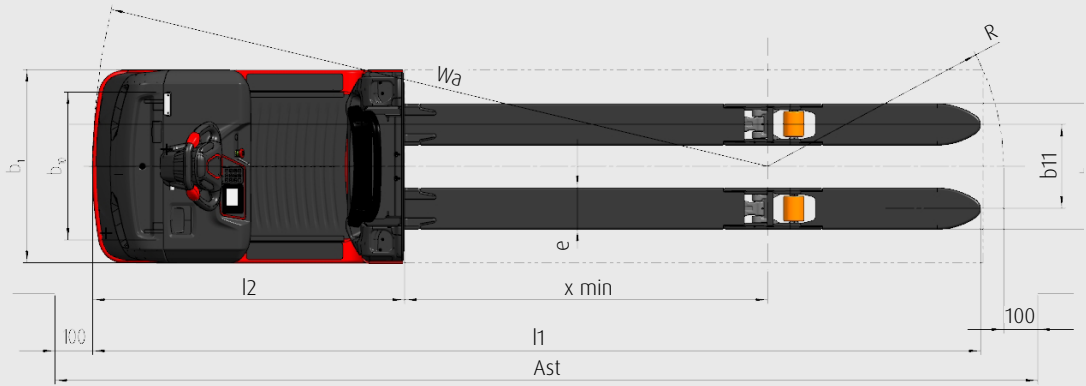
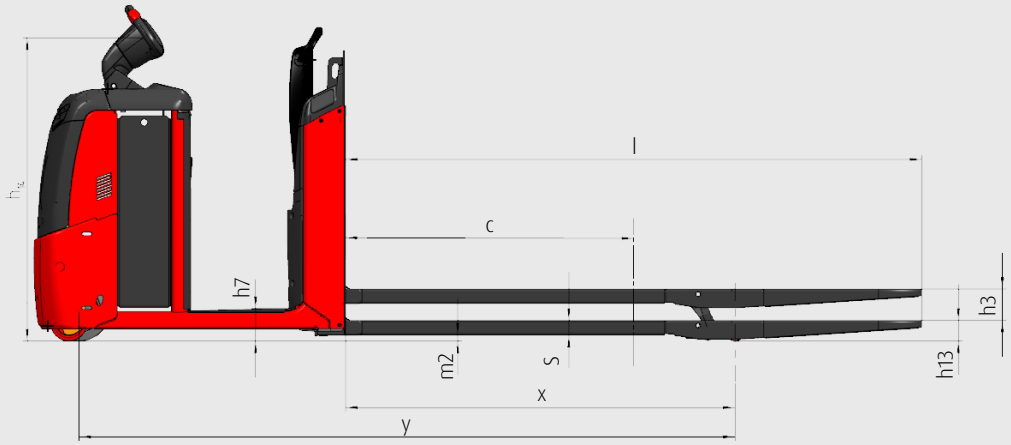
<sup>11)</sup> faster truck version available as optional: 10 km/h laden

(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 optimized 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



## 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

## 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



## 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

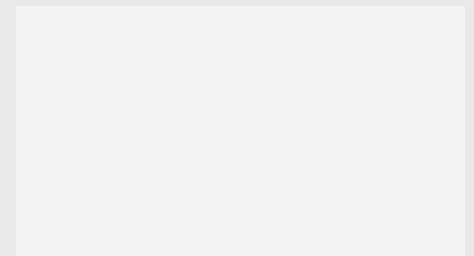
- Powerful, high-torque 2.3 kW (N20 C B) and 3 kW AC drive motor
- Moisture and dust-proof maintenance-free motor with up to 7 % gradeability performance fully loaded
- Safe starting on gradients without rollback
- Effortless proportional electric power steering with positive feedback
- Automatic speed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

Presented by:



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Linde Material Handling

*Linde*



## Order Picker

# SEMI-AUTOMATED

Capacity 2.0–2.5 t | Series 1115–4587

### Productive co-drivers

- Semi-automated driving modes increase picking efficiency by up to 20 percent
- Eliminating the need to step on and off the vehicle reduces operator walking distances
- Increased operator concentration increases picking performance and reduces errors
- Two driving modes „walk with me“ and „continuous“ cover most customer applications
- More efficient through partial automation without having to change existing processes



Here you can find more content via your smartphone: [Linde Augmented Reality App](#)





# TECHNICAL DATA (According to VDI 2198)

			LINDE	LINDE	LINDE	LINDE	LINDE	
			N20 B SA	N20 SA	N25 SA	N20 C SA	N25 C SA	
Characteristics	1.1	Manufacturer		LINDE	LINDE	LINDE	LINDE	
	1.2	Manufacturer's type designation		N20 B SA	N20 SA	N25 SA	N20 C SA	N25 C SA
	1.2a	Series		1115-00	1115-00	1115-00	4587	4587
	1.3	Power unit		Battery	Battery	Battery	Battery	Battery
	1.4	Operation		Order Picker	Order Picker	Order Picker	Order picker	Order picker
	1.5	Load capacity/Load	Q (t)	2.0	2.0	2.5	2.0	2.5
1.6	Load centre distance	c (mm)	600	600	1200	1200	1200	
1.8	Axle centre to fork face	x (mm)	900/970 <sup>1) 2)</sup>	900/970 <sup>1) 2)</sup>	1.775/1.845 <sup>1) 2)</sup>	1615 <sup>14)</sup>	1615 <sup>14)</sup>	
1.9	Wheelbase	y (mm)	2.609/2.717 <sup>2) 3) 4)</sup>	2.609/2.717 <sup>2) 3) 4)</sup>	2.609/2.717 <sup>2) 3) 4)</sup>	2717 <sup>14) 15)</sup>	2717 <sup>14) 15)</sup>	
Weights	2.1	Service weight	(kg)	953 <sup>5)</sup>	953 <sup>5)</sup>	996 <sup>5)</sup>	1268 <sup>14)</sup>	1293 <sup>14)</sup>
	2.2	Axle load with load, front/rear	(kg)	1.303/1.650 <sup>5)</sup>	1.303/1.650 <sup>5)</sup>	1.503/1.993 <sup>5)</sup>	1210/2058	1278/2515
	2.3	Axle load without load, front/rear	(kg)	821/132 <sup>5)</sup>	821/132 <sup>5)</sup>	841/155 <sup>5)</sup>	987/281	996/297
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		R+P/P	R+P/P	R+P/P	P/P	P/P
	3.2	Tyre size, front		Ø 254 × 102	Ø 254 × 102	Ø 254 × 102	Ø 254 × 102	Ø 254 × 102
	3.3	Tyre size, rear		Ø 85 × 80	Ø 85 × 80	Ø 85 × 80	Ø 85 × 100	Ø 85 × 80
	3.4	Auxiliary wheels (dimensions)		2x Ø 140 × 50	2x Ø 140 × 50	2x Ø 140 × 50	Ø 150 × 50	Ø 150 × 50
	3.5	Wheels, number front/rear (x = driven)		1x + 1/2 (1x + 1/4) <sup>6)</sup>	1x + 1/2 (1x + 1/4) <sup>6)</sup>	1x + 1/2 (1x + 1/4) <sup>6)</sup>	1x - 1/2	1x - 1/4
	3.6	Track width, front	b10 (mm)	491 <sup>2)</sup>	491 <sup>2)</sup>	491 <sup>2)</sup>	474	474
3.7	Track width, rear	b11 (mm)	355 (375/395/515) <sup>2)</sup>	355 (375/395/515) <sup>2)</sup>	355 (375/395/515) <sup>2)</sup>	348 (368/388/498)	348 (368/388/498)	
Dimensions	4.4	Lift	h3 (mm)	115	115	115	130	130
	4.8	Seat height relating to SIP/stand height	h7 (mm)		-	-	130	130
	4.9	Height drawbar in driving position min./max.	h14 (mm)				1258 <sup>14)</sup>	1258 <sup>14)</sup>
	4.15	Height, lowered	h13 (mm)	85 <sup>7)</sup>	85 <sup>7)</sup>	85 <sup>7)</sup>	85	85
	4.19	Overall length	l1 (mm)	2.500 <sup>2) 8)</sup>	2.500 <sup>2) 8)</sup>	3.750 <sup>2) 8)</sup>	3860 <sup>15)</sup>	3860 <sup>15)</sup>
	4.20	Length to fork face	l2 (mm)	1.350 <sup>2) 4)</sup>	1.350 <sup>2) 4)</sup>	1.350 <sup>2) 4)</sup>	1470 <sup>15)</sup>	1470 <sup>15)</sup>
	4.21	Overall width	b1/b2 (mm)	790 <sup>2)</sup>	790 <sup>2)</sup>	790 <sup>2)</sup>	822	822
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	55 × 165 × 1.150 <sup>2)</sup>	55 × 165 × 1.150 <sup>2)</sup>	55 × 165 × 2.400 <sup>2)</sup>	61 (78 max)/ 172/2390	61 (78 max)/ 172/2390
	4.25	Fork spread	b5 (mm)	520 (540/560/680) 2)	520 (540/560/680) 2)	520 (540/560/680) 2)	520 (540/560/670)	520 (540/560/670)
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	160/30 <sup>1) 9)</sup>	160/30 <sup>1) 9)</sup>	160/30 <sup>1) 9)</sup>	24/154 <sup>17)</sup>	24/154 <sup>17)</sup>
	4.33	Load dimension b12 × l6	b12 × l6 (mm)	800 × 1.200	800 × 1.200	2 × 800 × 1.200	-	-
	4.34	Aisle width predetermined load dimensions	Ast (mm)	2.950 <sup>4) 10) 11)</sup>	2.950 <sup>4) 10) 11)</sup>	4.067 <sup>4) 10) 11)</sup>	See table in linde world	See table in linde world
	4.34.1	Aisle width for pallets 1000 × 1200 crossways (fork raised)	Ast (mm)	-	-	-	See table in linde world	See table in linde world
	4.34.2	Aisle width for pallets 800 × 1200 crossways (forks raised)	Ast (mm)	-	-	-	See table in linde world	See table in linde world
4.35	Turning radius	Wa (mm)	2.250/2.320 <sup>1) 4)</sup>	2.250/2.320 <sup>1) 4)</sup>	3.125/3.195 <sup>1) 4)</sup>	3083 <sup>14)</sup> / 2975 <sup>14) 15) 17)</sup>	3083 <sup>14)</sup> / 2975 <sup>14) 15) 17)</sup>	
Performance	5.1	Travel speed, with/without load	(km/h)	10/12 <sup>12)</sup>	10/12 <sup>12)</sup>	10/12 <sup>12)</sup>	9/12 <sup>18)</sup>	9/12 <sup>18)</sup>
	5.1.1	Travel speed, with/without load, backwards	(km/h)	10/10 <sup>12)</sup>	10/10 <sup>12)</sup>	10/10 <sup>12)</sup>	8/11	8/11
	5.1.2	Travel speed, with/without load, backwards	(km/h)	6	6	6	6	6
	5.2	Lifting speed, with/without load	(m/s)	0.060/0.070 <sup>5)</sup>	0.060/0.070 <sup>5)</sup>	0.060/0.070 <sup>5)</sup>	0.070/0.111	0.064/0.089
	5.3	Lowering speed, with/without load	(m/s)	0.060/0.080 <sup>5)</sup>	0.060/0.080 <sup>5)</sup>	0.060/0.080 <sup>5)</sup>	0.084/0.067	0.068/0.066
	5.8	Maximum climbing ability, with/without load	%	16.0/13.0	16.0/13.0	14.0/13.0	7.0/12.0 <sup>19) 20)</sup>	7.0/12.0 <sup>19) 20)</sup>
	5.9	Acceleration time, with/without load	s	5.8/4.5	5.8/4.5	5.8/4.5	6.1/4.8	6.4/4.8
5.10	Service brake		Electric/hydraulic	Electric/hydraulic	Electric/hydraulic	Electromagnetic	Electromagnetic	
Drive	6.1	Drive motor rating S2 60 min	(kW)	3	3	3	3	3
	6.2	Lift motor rating at S3 15 %	(kW)	1.2/15%	1.2/15%	1.5/15%	2.2/5%	2.2/5%
	6.3	Battery according to DIN 43531/35/36 A, B, C, no		43 535/3 PzS	43 535/3 PzS	43 535/3 PzS	no	no
	6.4	Battery voltage/rated capacity (5 h)	(V)/(Ah)	24/345-375	24/345-375	24/345-375	24/345 - 465	24/345 - 465
	6.5	Battery weight (± 5 %)	(kg)	272/315 <sup>5) 13)</sup>	272/315 <sup>5) 13)</sup>	272/315 <sup>5) 13)</sup>	402	402
	6.6	Power consumption according to VDI cycle (EN 16796 <sup>9)</sup> )	(kWh/h)	0.5	0.5	0.48	0.45 <sup>*</sup>	0.48 <sup>*</sup>
	6.6.1	CO <sub>2</sub> equivalent emissions	(kg/h)	-	-	-	0.2	0.3
	6.7	Turnover output according to VDI 2198	(t/h)	136.0	136.0	162.5	129.0	157.0
6.8	Turnover efficiency according to VDI 2198	(kwh/h)	1.46	1.46	1.43	1.9	2.2	
Others	8.1	Type of drive unit		LAC	LAC	LAC	AC control	AC control
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	< 85	< 85	< 85	< 70	< 70

## N20 SA (1115)

- 1) Forks upraised/lowered
- 2) (± 5 mm)
- 3) With/without Initial lift
- 4) Values for 3 PzS batteries. 4 PzS battery = tabled values + 100 mm
- 5) (± 10%)
- 6) Figures in parenthesis with tandem load wheels

- 7) (-0/+5 mm)
- 8) ± 0 mm = 3 PzS lateral; +100 mm = 3 PzS vertical and 4 PzS lateral; +150 mm = 4 PzS vertical.
- 9) (± 2 mm)
- 10) Including a 200 mm (min.) operating aisle clearance.
- 11) Forks upraised

- 12) (± 5%)
- 13) Min./max.

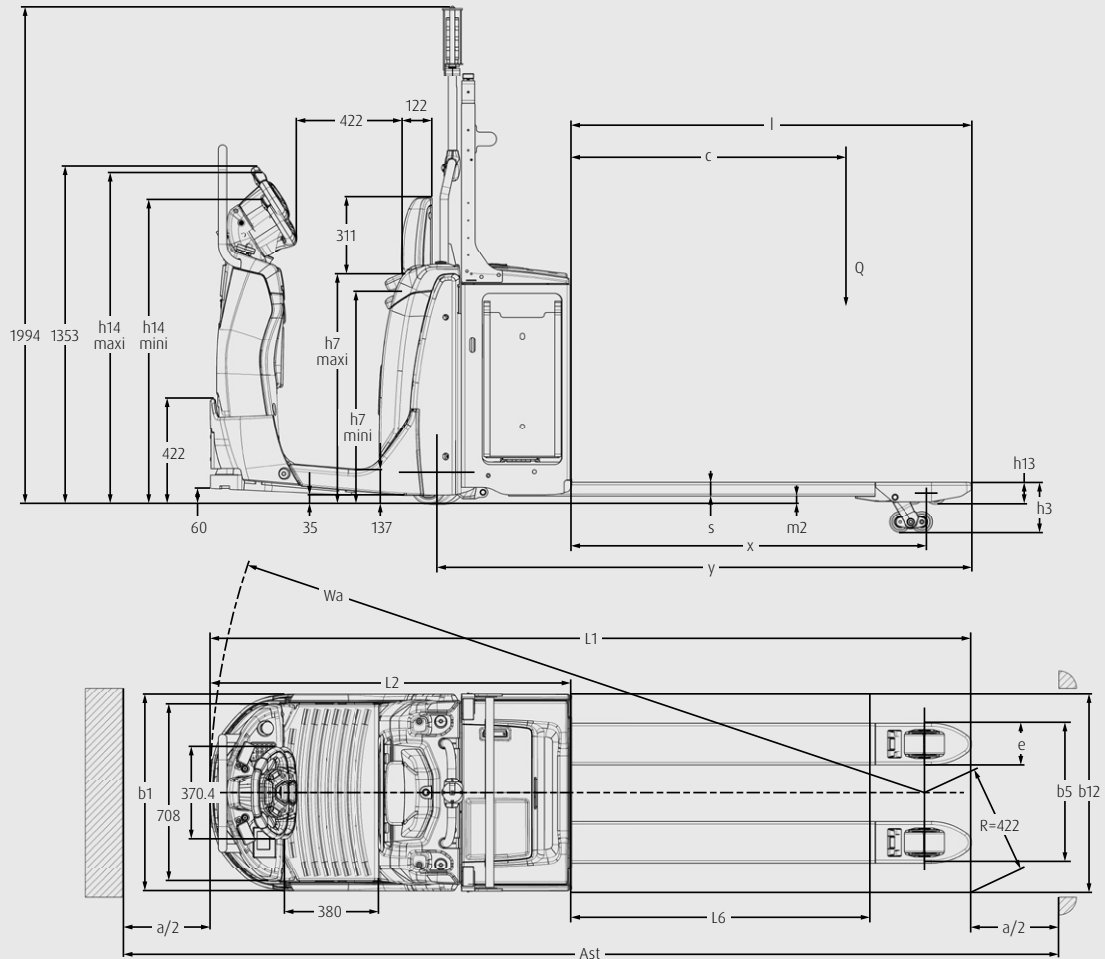
## N20 C SA (4587)

- 14) With forks length 2390 mm / x = 1615 mm/pull bar version; for other forks dimension see table below
- 15) With tray 4 Pz or Li-ION + 114 mm
- 16) With tiller adjustment option, h14 setting range = +89 mm/-19 mm

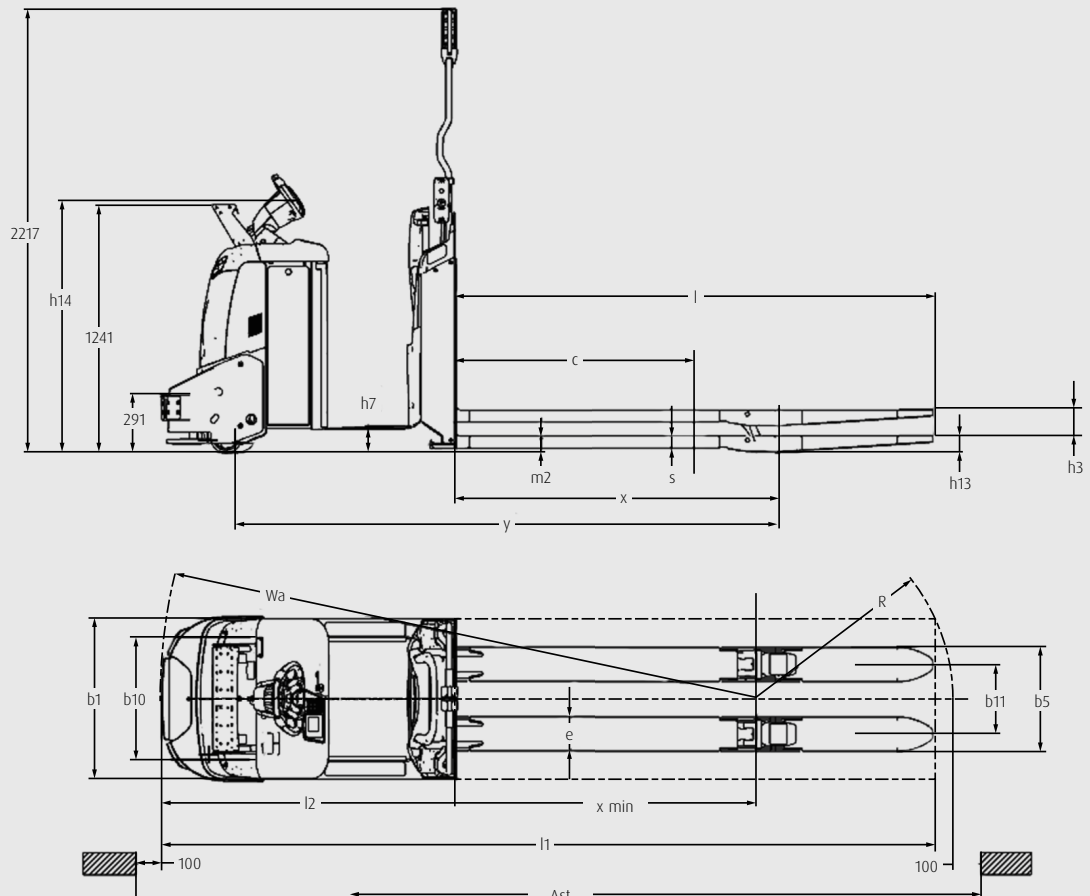
- 17) With load arms or forks raised
- 18) Traction speed unladen until 14 km/h available as optional
- 19) On rounded edge slope with forks/arms raised, if possible
- 20) For the geometric limit on unrounded edge slope, see table below



## N20 SA



## N20 C SA



# STANDARD AND OPTIONAL EQUIPMENT

Model/Equipment		N20 B SA	N20 SA	N25 SA	N20 C SA	N25 C SA
Safety	Front casted bumper with integrated safety scanner	●	●	●	●	●
	Low-mounted high level safety scanner	●	●	●	●	●
	Automatic speed reduction when cornering	●	●	●	●	●
	Lighting pole (mounted on rear accessory support)	●	●	●	●	●
	Linde BlueSpot™	○	○	○	○	○
	Front LED light	○	○	○	○	○
	Additional emergency buttons located in the rear part	●	●	●	●	●
	Key switch	●	●	●	●	●
	Log in PIN code	○	○	○	○	○
Operation / Load Handling	Follow-me function with walk-with-me mode	●	●	●	●	●
	Stop&Go function with continuous driving mode	●	●	●	●	●
	Rear initial lift control	○	○	○	○	○
	Initial lift electrical stop sensor	●	●	●	●	●
	Low speed if initial lift low	○	○	○	○	○
	Load backrest	○	○	○	○	○
	Remote control	○	○	○	○	○
	Remote control charger	○	○	○	○	○
	Digitalisation	Linde connect: desk	○	○	○	○
ac: access control (PIN or RFID)		○	○	○	○	○
dt: crash detection		○	○	○	○	○
an: usage analysis		○	○	○	○	○
Linde connect: cloud		○	○	○	○	○
Basic Package (trouble codes, operating hours, truck mapping)		○	○	○	○	○
Data Transmission (WiFi or Online)		○	○	○	○	○
Workplace	Fully suspended operator compartment	–	●	●	–	–
	Damped platform option	–	–	–	○	○
	Height adjustable Linde Steering Wheel	○	○	○	○	○
	Knee protection	●	●	●	○	○
	Basic rounded display	●	–	–	–	–
	Multifunction coloured display hour meter, maintenance indication, battery discharge indicator and internal fault code indication	–	●	●	●	●
	Height adjustable backrest including foldable seating support	○	○	○	○	○
	Accessory support front	○	○	○	○	○
	Accessory support rear (includes central pole for N20 series)	●	●	●	●	●
	Support data terminal and power supply cable 24 V	○	○	○	○	○
	Support clipboard DIN A4 and support for scanner	○	○	○	○	○
	Shrink wrap pole	○	○	○	○	○
Rear lower storage	○	○	○	–	–	
Attachment / Forks	Fork carriage up to 680 mm (depending on model)	○	○	○	○	○
	Fork length up to 3100 mm (depending on model)	○	○	○	○	○
	Overhang up to 975 mm (depending on model)	○	○	○	○	○
Axles and Tyres	Drive wheel Heavy Duty	●	●	●	●	●
	Drive wheel High Grip	○	○	○	○	○
	Single / tandem load wheels polyurethane (greasable)	○	○	○	○	○
	Standard castor wheel	●	●	●	●	●
Drive and Brake-System	Power assisted steering	●	●	●	●	●
	3 kW AC motor (maintenance free)	●	●	●	●	●
	Electromagnetic braking system	●	●	●	●	●
	Battery compartment, vertical change 3 PzS (300 Ah / 375 Ah) and 4 PzS (480 Ah / 620 Ah)	–	–	–	●	●
	Battery compartment, lateral battery change 3 PzS (345 Ah / 375 Ah) and 4PzS (460 Ah / 500 Ah), including ergonomic lever and metal rollers	●	●	●	○	○
	Battery compartment, side change 3 PzS (345 Ah / 465 Ah) and 4 PzS (460 Ah / 620 Ah), including ergonomic lever and metal rollers	○	○	○	○	○
	Battery compartment, Li-ION battery (205 Ah / 410 Ah) including side plug for opportunity charging	○	○	○	○	○
Li-ION 24 V-Chargers	○	○	○	○	○	
Service	CAN bus technology	●	●	●	●	●
	Rack configurations and End-of-an aisle stop adjustments	●	●	●	●	●

● Standard equipment    ○ Optional equipment    – Not available

# CHARACTERISTICS



Linde BlueSpot™ and bumper including safety scanner

## Safety

- Various safety systems prevent personal accidents and collisions in semi-automated operation
- Safety scanner at the front of the vehicle also detects obstacles that suddenly appear in front of the order picker
- Four antennas determine the relative position of the operator
- Special protection on the bumper prevents feet from getting under the vehicle
- Pole-mounted lights indicate current driving mode and warn when remote control and vehicle are not coupled
- Vehicle independently maintains distance from racking and stops at the end of the aisle to prevent accidents



Ergonomic remote

## Ergonomics

- Semi-automated operation eliminates the need to repeatedly step on and off the vehicle and prevents fatigue
- Activation of the semi-automated modes is intuitive, safe and easy via remote control
- In "walk with me" mode, the operator can choose from three different positions that activate the vehicle's onward travel to provide the ideal walking path to the pallet



Walk with me or Stop and Go function

## Handling

- In "walk with me" mode, the vehicle follows the operator while picking on one side of the rack, eliminating the walk from the operator's platform to the pallet
- In "continuous" mode, the drive is activated via the remote control and enables convenient order picking on both sides of the rack
- Ultra-wideband connection between the vehicle and the remote control ensures precise localization of the operator and exact reaction of the vehicle to the operator's movements
- Semi-automatic operation is deactivated as soon as the operator drives the vehicle himself



Computerized diagnostic

## Service

- Easy cleaning of the safety scanner
- Vehicle display, lamp post and laser display always provide information on current vehicle status
- Linde diagnostic tool and CAN bus connection enable simple diagnostics in the event of a repair
- Simple setup of the semi-automatic system to application conditions such as aisle width or rack length

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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