

# Order pickers with lift platform

Linde



## N 20 V N 20 Vi

Models N 20 V and N 20 Vi are high-performance trucks designed to optimize order picking operations at two levels.

### N 20 V

Forks welded to platform, giving the operator direct same-level access to the collecting pallet with platform lifted.

Two versions of this model are built:

- N 20 V 01, capacity 1000 kg, load legs under forks
- N 20 V 02, capacity 700 kg, load legs not under forks, allows working with any type of collecting pallet or container

### N 20 Vi

Lifting of operator platform only. Forks have 125 mm initial lift, permitting floor-level pallet pickup and putdown. Capacity 2000 kg.

### Leading features

- Compact chassis width of 792 mm, narrower than a Euro pallet
- New Linde twin-grip steering
- Self-centering electric steering system
- Operator controls and accessories designed to streamline picking, including large workshelf
- Linde Digital Control (LDC), adjustable-parameter microprocessor traction control system
- Linde Brake Control (LBC), automatic electronic braking on releasing speed control

### Operator compartment

The N 20 V and N 20 Vi can be driven with the operator platform lifted or lowered. Order picking is greatly simplified by a large workshelf in front of the operator console to hold items temporarily as they are selected. Ample space is provided on the console to store documents and support picking lists. Platform lifting and lowering is fully cushioned and controlled by pushbutton switches on the console. Lowering can also be controlled by a foot switch.

### Twin-grip steering

The unique Linde twin-grip steering combines the advantages of both tiller and steering wheel. All controls are grouped on the handlebars for use by either left or right hand. Position of the drive wheel is evident at all times and right-angle turns can be made easily with the truck and load remaining fully stable and the operator staying safely protected within the chassis contours.

### Electric steering

Truck steering is precise and flexible. Drive wheel position is monitored continuously by a microprocessor and sensors. The self-centering system maintains the truck in straightahead direction while cruising, accelerating and braking or during walk-along control by side-mounted inching switches (optional feature).

### Drive

Power comes from a self-cooled 2 kW traction motor. Control is provided by the new LDC system specially developed by Linde for material handling trucks. Working with a programmable microprocessor and MOSFET transistors, it equips the N 20 V/Vi with exceptional performance and allows convenient setting of all driving characteristics.

### Safety

- Automatic countercurrent braking
- Hydraulic safety brake acting proportional to load
- Speed reduction to 6 km/h with platform lifted
- Pressure-sensitive deadman tread
- Emergency stop switch
- Horn
- Operating parameters adjustable to the specific application

LINDE

**Order pickers**

Designation acc. to VDI 2198

# Data sheet for material handling equipment

ESU

Abbreviation acc.

October 2001

Characteristics	1.1	Manufacturer		Linde	Linde
	1.2	Model designation		<b>N 20V01</b>	<b>N 20V02</b>
	1.3	Power unit: battery, diesel, petrol, LP gas, AC		Battery	Battery
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Order picker	Order picker
	1.5	Load capacity	Q (kg)	1000 <sup>1)</sup>	700 <sup>1)</sup>
	1.6	Load centre	c (mm)	600	600
	1.8	Load distance lifted/lowered	x (mm)	395	-130
	1.9	Wheelbase (forks lowered)	y (mm)	1795	1265
Weights	2.1	Service weight including battery	kg	1515 <sup>2)</sup>	1460 <sup>2)</sup>
	2.2	Axle load with load, front/rear	kg	965/1550	500/1660
	2.3	Axle load without load, front/rear	kg	1075/440	905/555
Wheels and tyres	3.1	Tyres, rubber (R), polyurethane (P)		R + P/P	R + P/P
	3.2	Tyre size, front /drive side		Ø 254 x 90	Ø 254 x 90
	3.3	Tyre size, rear /load side		4 x Ø 85 x 60	4 x Ø 85 x 60
	3.5	Wheels, number operator /load side (x = driven)		1 x +1/4	1 x +1/4
	3.6	Track width, front	mm	495	495
	3.7	Track width, rear	mm	380	380
	Dimensions	4.2	Height, top edge Linde handlebars	h1 (mm)	1295
4.4		Platform lift height	h3 (mm)	940	940
4.5		Height, top edge Linde handlebars, platform up	h4 (mm)	2230	2230
4.6		Initial lift (N 20 V1)	h5 (mm)	-	-
4.8		Platform height, down	h7 (mm)	150	150
4.14		Platform height, up	h14 (mm)	1090	1090
4.15		Fork height, lowered	h13 (mm)	86	86
4.19		Overall length	l1 (mm)	2780	2780
4.20		Length to fork face	l2 (mm)	1630	1630
4.21		Overall width	b1/b2 (mm)	790	790
4.22		Fork dimensions	s/e/l (mm)	60/180/1150	60/180/1150
4.23		Fork carriage to DIN 15173, class / form A, B		No	No
4.25		Fork spread	b5 (mm)	560	560
4.26		Width between load legs	b4 (mm)	250	250
4.32		Ground clearance, centre of wheelbase	m2 (mm)	25	25
4.34		Aisle width with pallets 800 x 1200 along forks	Ast (mm)	3090	3260
4.35	Turning radius	Wa (mm)	2090	1730	
4.41	Clearance aisle width, with/without load	Au (mm)	-	-	
Performance	5.1	Travel speed, with/without load	km/h	9.5/10	9.5/10
	5.2	Platform lift speed, with/without load	m/s	0.16/0.22	0.16/0.22
	5.21	Fork lift speed, with/without load	m/s	-	-
	5.3	Platform lower speed, with/without load	m/s	0.5/0.5	0.5/0.5
	5.31	Fork lower speed, with/without load	m/s	-	-
	5.7	Climbing ability, with/without load, 30 minute rating	%	0/8	0/8
	5.8	Maximum climbing ability, with/without load, 5 minute rating	%	9.5/15	9.5/15
	5.10	Service brake		Hydraulic, load-dependent	Hydraulic, load-dependent
Drive	6.1	Drive motor, 60 minute rating	kW	2.0	2.0
	6.2	Lift motor, 15% rating	kW	3.0	3.0
	6.3	Battery according to IEC		-	-
	6.4	Battery voltage/rated capacity (5 h)	V/Ah	24/480	24/480
	6.5	Battery weight	kg	384	384
Other	8.1	Traction control		LDC	LDC
	8.4	Noise level at operator's ear	dB(A)	71	71

Data given for standard version may vary according to actual equipment.

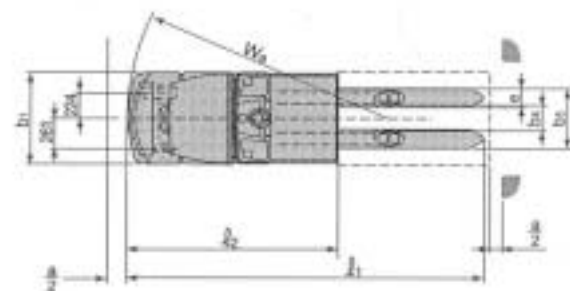
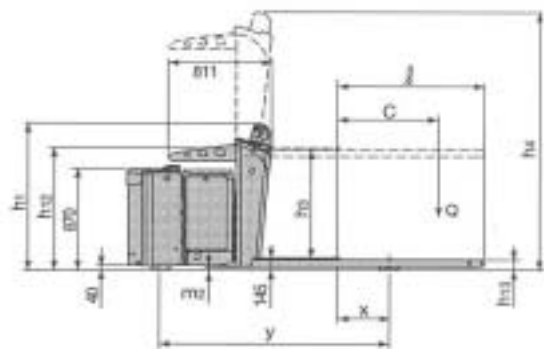
1) Load uniformly distributed.

2) With battery as Line 6.4.

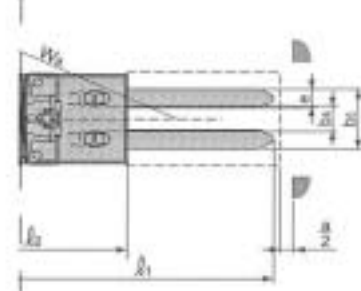
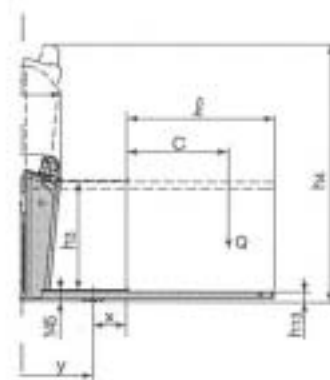
# VDI 2198

Linde
<b>N 20Vi</b>
Battery
Order picker
2000 <sup>1)</sup>
600
895/962
2320
1350 <sup>2)</sup>
1320/2030
1020/330
R + P/P
Ø 254 x 90
4 x Ø 85 x 80
1 x +1/4
495
355
1275
1015
2290
125
130
1145
86
2730
1580
790
60/165/1150
No
520
-
25
3140
2690
-
8.7/10
0.22
0.03/0.04
0.5
0.08/0.055
0/8.5
6.5/15
Hydraulic, load-dependent
2.0
0.8/3.0
-
24/480
410
LDC
71

**N 20V01**  
Long load legs under forks

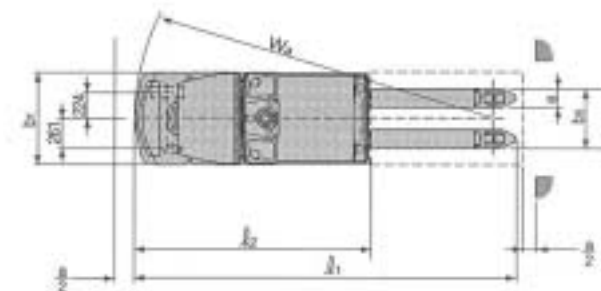
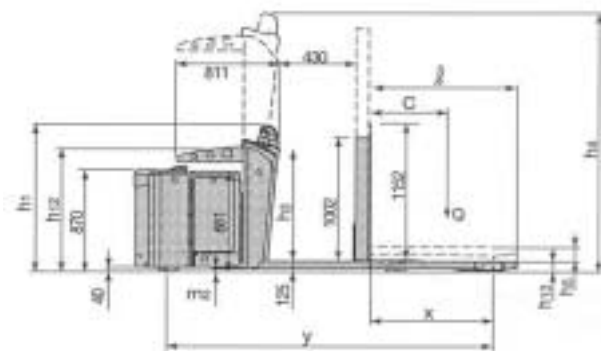


**N 20V02**  
Short load legs under platform



(Safety clearance, a = 200 mm)

**N 20Vi**



# Equipment



## Standard equipment

- All items listed under Safety
- Battery discharge indicator
- Operating hours meter
- Adjustable LDC traction controller
- Automatic braking (LBC system)
- Safety brake acting proportional to load
- Rubber drive wheel
- Polyurethane stabilizer
- Polyurethane load wheels with string guard
- Fork width 560 mm, fork length 1150 mm (V)
- Fork width 520 mm, fork length 1150 mm (Vi)
- Cold environment suitability to  $-10^{\circ}\text{C}$
- Battery and cable plug
- Side-change battery roll-out
- Spare parts catalogue and operating manual

## Batteries and chargers

N 20 V 01 and N 20 Vi powered by 24 V battery, 360–480 Ah.  
 N 20 V 02 powered by 480 Ah battery.  
 Battery roll-out as standard on N 20 V and N 20 Vi for quick and easy battery change.  
 Choice of several standard or rapid battery chargers.

## Options

- Alternative fork lengths and widths
- Inching buttons on both sides for walk-along travel control
- Polyurethane drive wheel
- Wet-grip or non-marking drive wheel
- Roller change trolley for single battery
- Roller change stand for two batteries

Subject to modification in the interests of progress. Illustrations and technical details not binding for actual construction. All dimensions subject to customary tolerances.