## Standard Equipment/Optional Equipment

#### Standard Equipment

Modular truck design for optimum customization

#### Operator's compartment

Mast or load side controls

Suspension mounted cab to absorb shocks and vibration Soft rubber mat isolates operator from shocks and vibration Storage compartments, pen holders and space for bottles, cans or tools integrated into cab interior LED display with hour meter, steered wheel position indicator, Safety battery status and service codes Very low step on height for easy and off access Steering knob

#### Throughput

Durable polyurethane wheels Regenerative electric braking through the drive motor for optimum use of energy Battery discharge indicator with lift cutout

#### Motors

AC drive motor for robust, economical high performance with minimum wear and maintenance 3,0 KW drive motor 3,2 KW lift motor

Automatic reduction in travel speed with platform raised All traction and lift functions interlocked through foot switch and sensors ensuring two handed operation

### **Optional Equipment**

#### Operator's compartment

LCD "Comfort" display with keypad log-on, lift height indicator, Side barriers fitted with gas struts and safety interlocks speedometer, hour meter, steered wheel position indicator, battery status and service codes Alternative cabin widths (800 mm - 1500 mm) Rearview mirrors (left/right) on load side and/or mast side Steering wheel Macrolon cover for overhead guard Lighting focusable on rack, pallet or cab interior Clipboard DIN A4 Fan in overhead guard Radio preparation 12V/50W with 2 speakers and antenna Linde LFM data management system

#### Throughput

2 different chassis, 790 mm and 980 mm to suit application Supplementary lift 800 mm for easy order picking Buttons for supplementary lift on load side for easy handling Inching buttons for pedestrian operation on both sides Truck prepared for data terminal, printer, scanner installation

#### Motors

4,0 kW lift motor for higher throughput 7,6 kW lift motor for maximum throughput

#### Safety

Alternative speed reduction and end aisle stop functions Lift and traction cut off Anti-collision sensor for lifting Warning lights LSC for speed reduction with steering angle

#### Mast / Forks

Different fork lengths 700 mm - 2500 mm Carriage for adjustable forks (FEM)

#### Environment

Mechanical side guidance Cold store version Antistatic guide rollers and wheels On-line diagnosis tool

#### Battery

Alternative battery capacities Side cover for battery Electrical verification for battery lock



The V 10 truck is designed to guarantee the operator's safety when driving, lifting and order picking. Outstanding visibility through and to either side of the mast offers the highest level of security. The integrated touch sensors ensure 2 hand operation. The LSC lift control monitors lift height and steering angle automatically reducing traction speed when necessary.

#### Performance

Efficiency and high performance are the best words to describe the V 10. It is capable of picking at heights up to 6350 mm. Its powerful and economical AC drive unit combines optimum performance with low energy con-sumption and great reliability. Three different lift motor options allow the truck to be tailored to exactly match the application.

#### Comfort

The soft suspended stand-on platform and the low cab step height increases working comfort and makes the truck as easy to use at max. height as at floor level. Wide variety of storage compartments and options such as radio preparation, fans, preparation data terminals & scanners means the truck can be equipped for every kind of order picking application.

# V 10



#### Reliability

Our expertise in designing and building material handling equipment is the guarantee that the V 10 is a truck you can rely on. Thanks to its easy maintenance, downtime is reduced and throughput is increased. Aspects like the central servicing make the V 10 an extremely reliable machine. The active cooling system ensures the highest availability even in extreme conditions.

#### Productivity

The V 10 is designed to achieve the highest productivity possible. The powerful lift motors provide fast lift of the cab whenever needed. Based on the latest ergonomic standards, the working environment and the controls allow the operator to maximise throughput. Of course, the truck can work just as well in a wide aisle, as in a guided aisle.



## Electric Medium-Level Order Picker 1000 kg

Series 5021

## Features

#### Two versions are available

- $\rightarrow$  Model V 10-01 with fixed forks welded to the operator platform, for working with walk on pallets
- $\rightarrow$  Model V 10-02 with supplementary lift on operator platform, forks welded to fork carriage. Pallet can be raised to most convenient working level for picking. Optimum matching of lift carriage minimizes dead space to allow full utilization of pallet surface area



#### **Operators compartment**

- $\rightarrow$  Cab is suspension-mounted and has a floor designed to absorb shock and vibration
- $\rightarrow$  Lighting to illuminate racks, load and/
- $\rightarrow$  Storage compartments, pen holders and space for bottles, cans or tools integrated in cab lining
- $\rightarrow$  Radio preparation, fans, preparation for data terminals and scanners

#### Modular concept

- $\rightarrow$  Unique modular design allows the perfect specification for each application
- $\rightarrow$  Combination of different lift motors, chassis, masts, batteries, cabins, etc. to suit every application
- $\rightarrow$  Side guide rollers can be fitted for narrow aisle working



 $\rightarrow$  Robust, economical high performance

traction and lift motors are fitted as

 $\rightarrow$  Optional lift motor sizes (3 options for

matched to customer requirements

light, standard and heavy duty appli-

cations) allow truck performance to be

#### Safety

- $\rightarrow$  Two handed operation of controls via touch sensors ensures safety
- $\rightarrow$  All traction and lift functions interlocked through deadman's switch and integrated 2 handed operation  $\rightarrow$  Automatic speed reduction when tur-
- ning
- $\rightarrow$  Emergency lowering under rear hood readily accessible in aisle



#### Display

- $\rightarrow$  Easily seen LED or optional LCD display
- $\rightarrow$  All relevant functions clearly displayed to operator
- $\rightarrow$  Auxiliary functions such as rail guidance or battery lock indication incorporated into control console



#### Control concept

- $\rightarrow$  Simple ergonomic controls allow precise, accurate operation reducing driver fatigue and increasing throughput
- $\rightarrow$  Simultaneous traction and lifting/ lowering
- $\rightarrow$  Safe two handed operation ensured by integrated sensors



LSC

Drive and lift

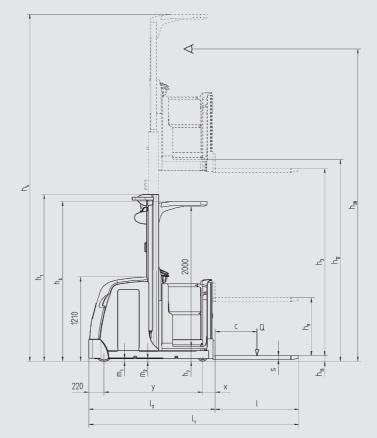
standard

- $\rightarrow$  Stepless automatic adjustment of speed depending on steering angle and lift height
- Highly efficient use of energy and energy recovering



## Technical Data according to VDI 2198

	1.1	Manufacturer		LINDE	LINDE
Characteristics	1.2	Model desgination		V10 Simplex mast 1)	V10 Standard mast
	1.3	Power unit		Battery	Battery
	1.4	Operation		Order Picker	Order Picker
	1.5	Load capacity	Q (t)	1.0	1.0
5	1.6	Load centre	c (mm)	400	400
	1.8	Axle centre to fork face	x (mm)	190	190
	1.9	Wheelbase	y (mm)	1270	1415
Weights	2.1	Service weight	(kg)	1754 <sup>2)</sup>	2611 <sup>2)</sup>
h	2.2	Axle load with load, front/rear	(kg)	589 / 2165 <sup>2)</sup>	1080 / 1531 2)
	2.3	Axle load without load, front/rear	(kg)	1054 / 700 2)	1497 / 1114 <sup>2)</sup>
	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 250 x 100	Ø 250 x 100
	3.3	Tyre size, rear		Ø 150 x 100	Ø 150 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	655	835
	4.2	Height of mast, lowered	h1 (mm)	2000	2900
	4.4	Lift	h3 (mm)	1500	4550
	4.5	Height of mast, extended	h4 (mm)	3750	6800
	4.7	Height of overhead guard (cabin)	h6 (mm)	2250	2250
	4.8	Height of seat/stand-on platform	h7 (mm)	200	200
	4.11	Supplementary lift	h9 (mm)	800	800
	4.14	Platform height, raised	h12 (mm)	1700	4750
	4.15	Fork height, lowered	h13 (mm)	65	65
	4.19	Overall length	I1 (mm)	2460	2615
2	4.20	Length to fork face	l2 (mm)	1660	1815
	4.21	Overall width	b1/b2 (mm)	790 / 790	980 / 980
	4.22	Fork dimensions	s/e/l (mm)	55 x 120 x 800	55 x 120 x 800
	4.23	Fork carriage to ISO 2328, class/type A, B		no	ΠΟ
	4.24	Width of fork carriage	b3 (mm)	740	740
	4.25	Fork spread, min/max	b5 (mm)	560 / 640	560 / 640
	4.27	Width over side guide rollers	b6 (mm)	-	1375
	4.31	Ground clearance, below mast		38	38
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	38	38
	4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	-	1380
	4.35	Turning radius	Wa (mm)	1470	1635
	4.42	End aisle width, with/without load	Au (mm)	2828	2984
	5.1	Travel speed, with/without load	(km/h)	9 / 9	10 / 10
2	5.2	Lifting speed, with/without load	(m/s)	0.18 / 0.25	0.22 / 0.31
	5.3	Lowering speed, with/without load		0.3 / 0.24	0.3 / 0.24
ב בון מווומוורב	5.9	Acceleration time, with/without load	(m/s) (s)	7.0 / 7.0	8.0 / 8.0
Ĕ	5.10	Service brake	(5)	Regenerative	Regenerative
	6.1	Drive motor, 60 minute rating		3	3
	6.1		(kW)	4	
		Lift motor rating at \$3 15%	(KVV)		7.6
	6.3	Battery according to DIN 43531/35/36 A,B,C,no	()//Ab)	43 535 / B	43 535 / A
	6.4	Battery voltage/rated capacity (5h)	(V/Ah)	24 / 420	24 / 560
0	6.5	Battery weight (± 5%)	(kg)	385	502
	8.1	Type of drive control		Microprocessor	Microprocessor
>	8.4	Noise level at operator's ear	(dB(A))	61	69



Height of mast lowered	h1 (mm)	1500	2000	2500
Lift height without supplementary mast	h3 (mm)	1000	1500	1910
Lift height with supplementary mast	h3+h9 (mm)	1800	2300	2710
Total lift height from ground	h25 (mm)	1865	2365	2775
Supplementary lift	h9 (mm)	800	800	800
Platform height	h12 (mm)	1200	1700	2110
Picking height (h12+1600mm)	h28 (mm)	2800	3300	3710
Extended height	h4 (mm)	2390	3750	4160

V10 with standard mast (2)								
Height of mast lowered	h1 (mm)	2400	2900	-				
Lift height without supplementary mast	h3 (mm)	3550	4550	-				
Lift height with supplementary mast	h3+h9 (mm)	4350	5350	-				
Total lift height from ground	h25 (mm)	4415	5415	-				
Supplementary lift	h9 (mm)	800	800	-				
Platform height	h12 (mm)	3750	4750	-				
Picking height (h12+1600mm)	h28 (mm)	5350	6350	-				
Extended height	h4 (mm)	5800	6800	-				

2.) available with 980 mm chassis width

