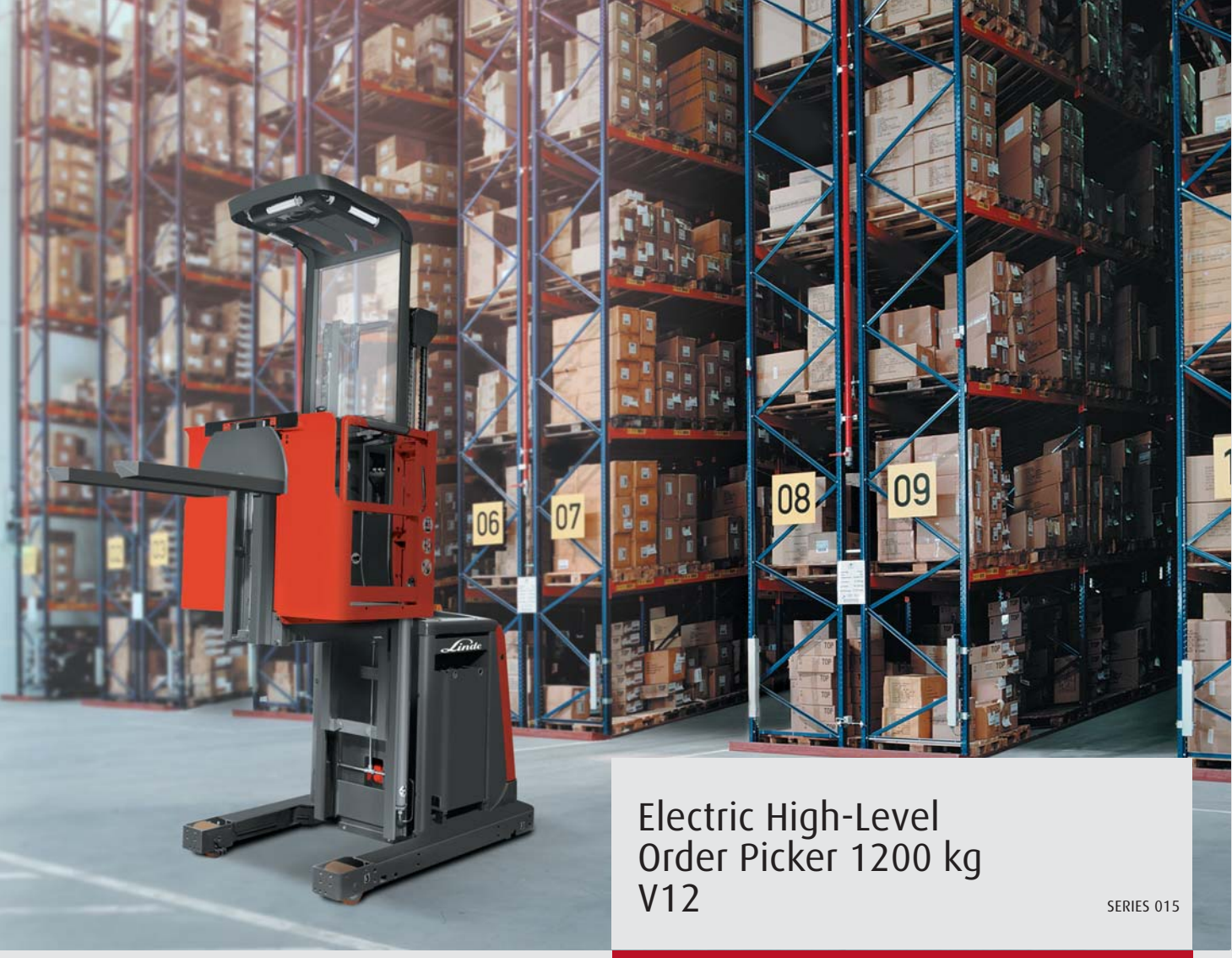


Electric High-Level Order Picker 1200 kg V12

SERIES 015

Linde Material Handling

Safety

The V12 truck is designed to guarantee the operator's safety. Its outstanding visibility through and to either side of the mast offers the highest level of security. The low cab step height increases safety, and makes the V12 truck as easy to use at maximum height as at floor level. The V12 will only move once the floor-located deadman's switch is activated.

Performance

Efficiency and high-performance are the best words to describe the V12 high-level order picker. It is capable of picking at heights up to 10480mm. Its powerful and economical drive unit combines optimal performance with low energy consumption and is extremely resistant.

Comfort

Built to ensure high-performance, the V12 truck is also very comfortable for the operator. Regardless of the weight of the load, the cab always sets it down gently thanks to the hydraulic cushioning of the cylinder during the stroke process. Suspension-mounted, the platform with its several storage compartments absorbs shocks and vibration that may occur during travel lifting and lowering motions.

Reliability

Our expertise in material handling is the guarantee that the V12 order picker is a truck you can rely on. Thanks to the easy maintenance and programming, downtimes are reduced and throughput of goods is increased. Furthermore other technical aspects such as the central servicing and diagnosis interface, and a hood that opens up wide even in an aisle, make the V12 an extremely reliable machine.

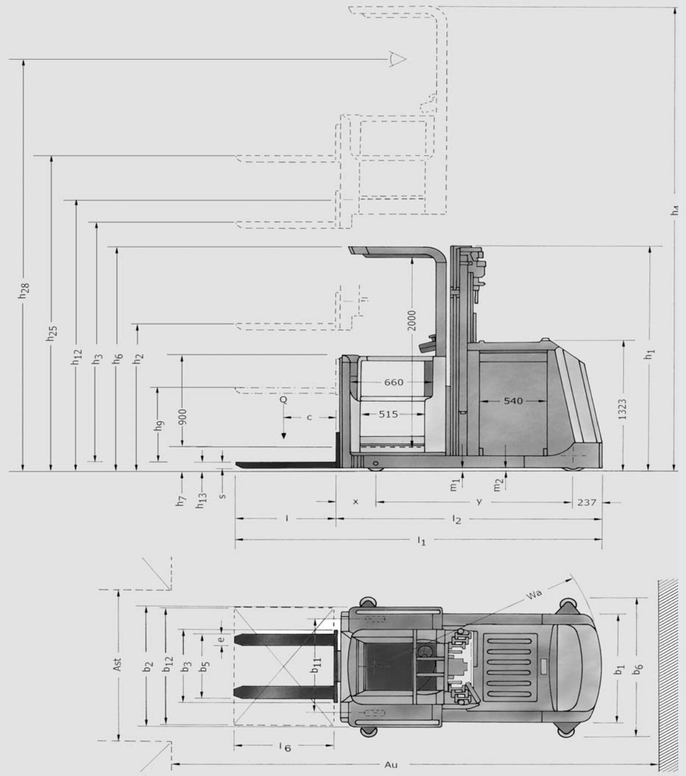
Productivity

The working environment, based on the latest ergonomic standards, and the powerful lifting and driving motors, allow the driver to achieve a high throughput in order picking. Moreover, the integrated mast and console design make the V12 a very manoeuvrable truck which is adapted to narrow aisles.

Technical data (according to VDI 2198)

Characteristics	1.1	Manufacturer		**LINDE**	**LINDE**
	1.2	Model designation		**V12** Telescopic Mast	**V12** Triplex Mast
	1.3	Power unit: battery, diesel, LP gas, mains power		Battery	Battery
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Order picker	Order picker
	1.5	Load capacity	Q (kg)	1200	1200
	1.6	Load centre distance	c (mm)	400/600	400/600
	1.8	Load centre distance to load face	x (mm)	343	388
	1.9	Wheelbase	y (mm)	1557	1557
Weights	2.1	Service weight	kg	2950 [2]	3150 [2]
	2.2	Axle load with load, front/rear	kg	780/3370	880/3470
	2.3	Axle load without load, front/rear	kg	1520/1430	1690/1540
Chassis	3.1	Tyres, front/rear, SE = (superelastic), P = (pneumatic)		Polyurethane/Polyurethane	Polyurethane/Polyurethane
	3.2	Tyre size, front	mm	ø 310 x 125	ø 310 x 125
	3.3	Tyre size, rear	mm	ø 170 x 152	ø 170 x 152
	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)	900	900
Dimensions	4.2	Height of mast, lowered	h1 (mm)	2250	2250
	4.3	Free lift	h2 (mm)	-	-
	4.4	Lift	h3 (mm)	2825 [1]	4390 [1]
	4.5	Height of mast, extended	h4 (mm)	5165	6730
	4.7	Height of overhead guard (cabin)	h6 (mm)	2340	2340
	4.8	Height operators seat/stand-on platform	h7 (mm)	240	240
	4.11	Supplementary lift	h9 (mm)	740	740
	4.14	Platform height, lowered	h12 (mm)	3065	4630
	4.15	Fork height, lowered	h13 (mm)	65	65
	4.19	Overall length	l1 (mm)	2937	2982
	4.20	Length to fork face	l2 (mm)	2137	2182
	4.21	Overall width	b1/b2 (mm)	1180/1200	1180/1200
	4.22	Fork dimensions	s/e/l (mm)	60/120/800	60/120/800
	4.23	Fork carriage to DIN 15173, class/form A, B		no	no
	4.24	Width of fork carriage	b3 (mm)	660	660
	4.25	Fork spread, minimum/maximum	b5 (mm)	640	640
	4.27	Width over side guide rollers	b6 (mm)	1220	1220
	4.31	Ground clearance, mast	m1 (mm)	30 [4]	30 [4]
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	50 [4]	50 [4]
	4.33	Aisle width pallet 800 x 1200 across forks	Ast (mm)	1380	1380
	4.34	Aisle width pallet 800 x 1200 along forks	Ast (mm)	-	-
	4.35	Turning radius	Wa (mm)	1795	1795
	4.41	End aisle width, with/without load	Au (mm)	3290	3330
Performance	5.1	Travel speed, with/without load	km/h	11/11 [3]	11/11 [3]
	5.2	Lifting speed, with/without load	m/s	0.30/0.37 [3]	0.30/0.37 [3]
	5.3	Lowering speed, with/without load	m/s	0.35/0.35	0.35/0.35
	5.9	maximum climbing ability, with/without load	s	7.0/7.0	7.0/7.0
	5.10	Service brake		Regenerative	Regenerative
Drive	6.1	Drive motor, 60 minute rating	kW	4.6	4.6
	6.2	Lift motor, 15% rating	kW	11.5	11.5
	6.3	Battery according to IEC		254-2; A	254-2; A
	6.4	Battery voltage/rated capacity (5 h)	V/Ah	48/560L	48/560L
	6.5	Battery weight (± 5%)	kg	930	930
Other	8.1	Type of drive control		MOSFET	MOSFET
	8.4	Noise level at operator's ear	dB (A)	< 68	< 68

1) For alternative lift heights, see tables.
2) Values including battery, see line 6.5.
3) Figures valid for minimum lowered mast height.
4) Sensors, antennas, min. 10 mm.



Retracted Height and Lift Height/Telescopic Mast							
Lift height without supplementary lift	**h3** (mm)	2825	3225	4125	5125	5725	6725
Lift height with supplementary lift	**h3 + h9** (mm)	3565	3965	4865	5865	6465	7530
Total lift height from ground	**h25** (mm)	3030	4030	4930	5930	6530	7465
Supplementary lift	**h9** (mm)	740	740	740	740	740	740
Platform height	**h12** (mm)	3065	3465	4365	5365	5965	6965
Picking height	**h28** (mm)	4665	5065	5965	6965	7565	8565
Retracted height	**h1** (mm)	2250	2450	2900	3400	3900	4400
Extended height	**h4** (mm)	5165	5565	6465	7465	8065	9065

Retracted Height and Lift Height/Triplex Mast							
Lift height without supplementary lift	**h3** (mm)	4390	4990	6340	7140	8640	
Lift height with supplementary lift	**h3 + h9** (mm)	5130	5730	7080	7880	9380	
Total lift height from ground	**h25** (mm)	5195	5795	7145	7945	9445	
Free lift	**h2** (mm)	-	110	560	1060	1560	
Supplementary lift	**h9** (mm)	740	740	740	740	740	
Platform height	**h12** (mm)	4630	5230	6580	7380	8880	
Picking height	**h28** (mm)	6230	6830	8180	8980	10480	
Retracted height	**h1** (mm)	2250	2450	2900	3400	3900	
Extended height	**h4** (mm)	6730	7330	8680	9480	10980	

Equipment

Standard equipment

Operators compartment

Mast-side or load-side control position
Suspension-mounted cab to absorb shock and vibration
Very soft and comfortable platform surface.
Large padded backrest for relaxed driving and standing position
Storage compartments, pen holders and space for bottles, cans or tools integrated in cab lining
Clear and distinct control layout
Membrane keypad for hour meter, height indicator, wheel position and battery status as well as for operator and service information read-out
Steering angle indicated on control console
Very low step on height for easy on and off

Mast/Forks

Different Forks (b5: 560mm-880mm, length: 800mm-1200mm)

Safety

Regenerative braking by drive motor when travelling for optimal use of energy
Battery discharge indicator with lift cutout
Platform lift with two primary lift chains
Automatic travel speed reduction with high platform lift
Side safety barriers fitted with gas jacks and safety switches
All travel and lift motions interlocked through deadman's switch and integrated two-hand operation
Drain valve under rear hood readily accessible in aisle
Spring-load brake on drive motor as stationary safety brake

Drive and lifting motors

Robust, economical high-performance AC-drive and AC-lifting concept employing minimum wear
Drive motor 4,6 KW
Lift motor 11,5 KW

LSC (Linde System Control)

Height measurement system
Diagnosis and service interface allows convenient configuring and initialization via laptop computer
Very efficient use of energy and energy recovery

Optional equipment

Operators compartment

Mast-side and load-side control position
Lighting focusable on rack compartments, pallet or cab interior
Fan in overhead guard
Infinitely variable height adjustment of mast-side control console
Alternative overhead guard heights
Writing stand/clipboard
Front console comfort padding and storage facilities
Power outlet on overhead guard for radio, etc.
Macrolon screen for overhead guard
Load side cover with space for tools etc. and replaceable backrest
Electric safety barriers on the load side
Mobile data terminal, printer, scanner preparation
Rearview mirror
Padded side barriers

Mast/Forks

Alternative mast heights for simple and for telescopic and triplex lifting masts
Fork carriages for various pallets
Lift limiting
Supplementary fork lift
Carriage for adjustable forks (™ FEM)
Mast bracing
Walk on pallet

Environment

Mechanical or inductive wire guidance
Mobile safety system (integrated in control panel)
Alternative chassis widths
Alternative cab widths
Automatic, end of aisle braking (different options)
Cold store version

Battery

Battery hood railing
Roll-out battery change
Add. battery cable set

Other options available on request

Features

Two versions are available:

→ Model V12-01 with fixed forks welded to the operator platform, for working with walk-on pallets
→ Model V12-02 with supplementary fork lift mast on operator platform, forks welded to fork carriage. Pallet can be raised to most convenient working level for picking. Optimum matching of lift carriage and fork carriage minimizes dead space to allow full utilization of pallet surface area

Operators compartment

→ High operator comfort to permit high order picking performance
→ Cab is suspension-mounted and has a floor designed to absorb shock and vibration that may occur during travel, lifting and lowering motions
→ Neon lamps can be switched separately and focused to illuminate front of storage racks, load handler and/or cab.
→ Storage compartments, pen holders and space for bottles, cans or tools integrated in cab lining
→ Mast-side plastic screen fitted between mast sections shields operator from drafts and travel noise

Control Panel and Display

→ Clear and distinct control layout enables all main functions to be operated separately or in combination without shifting position of hands
→ Key-lock truck switch and all controls integrated in housing to provide full order picking capability when installed on load-side
→ Auxiliary functions such as external positive guidance or mobile safety system also incorporated into control console

Steering

→ Electric steering with defined centre position
→ Steering angle indicated on controle console

Brakes

→ Virtually no wear dual braking system
→ Regenerative braking by drive motor when travelling for optimal use of energy
→ The split operation of the two systems guarantees a minimum wear of the brakes

Safety

→ Two-hand safety operation of controls
→ Automatic travel speed reduction with high platform lift
→ All travel and lift motions interlocked through deadman's switch and integrated two-hand operation
→ Rescue winch integrated in overhead guard, quickly and easily operated without tools
→ Drain valve under rear hood readily accessible in aisle

Motors

→ Robust, economical high-performance AC-drive and AC-lifting concept employing minimum wear
→ Highly responsive and constant driving independent of load weight
→ The powerfull drive and lift motors assure for the driver comfortable working with a high troughput

LSC (Linde System Control)

→ Height measurement system
→ Diagnosis and service interface allows convenient configuring and initialization via laptop computer
→ Very efficient use of energy and energy recovery
→ Small spares stocking expense due to the use of standardized control components and reduced number of components altogether

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