Linde Material Handling

Pallet Stackers

D12 – D14 SP | D12 HP SP/AP

Capacity 1.2 t – 1.4 t | Series 1161

Agile double transporter

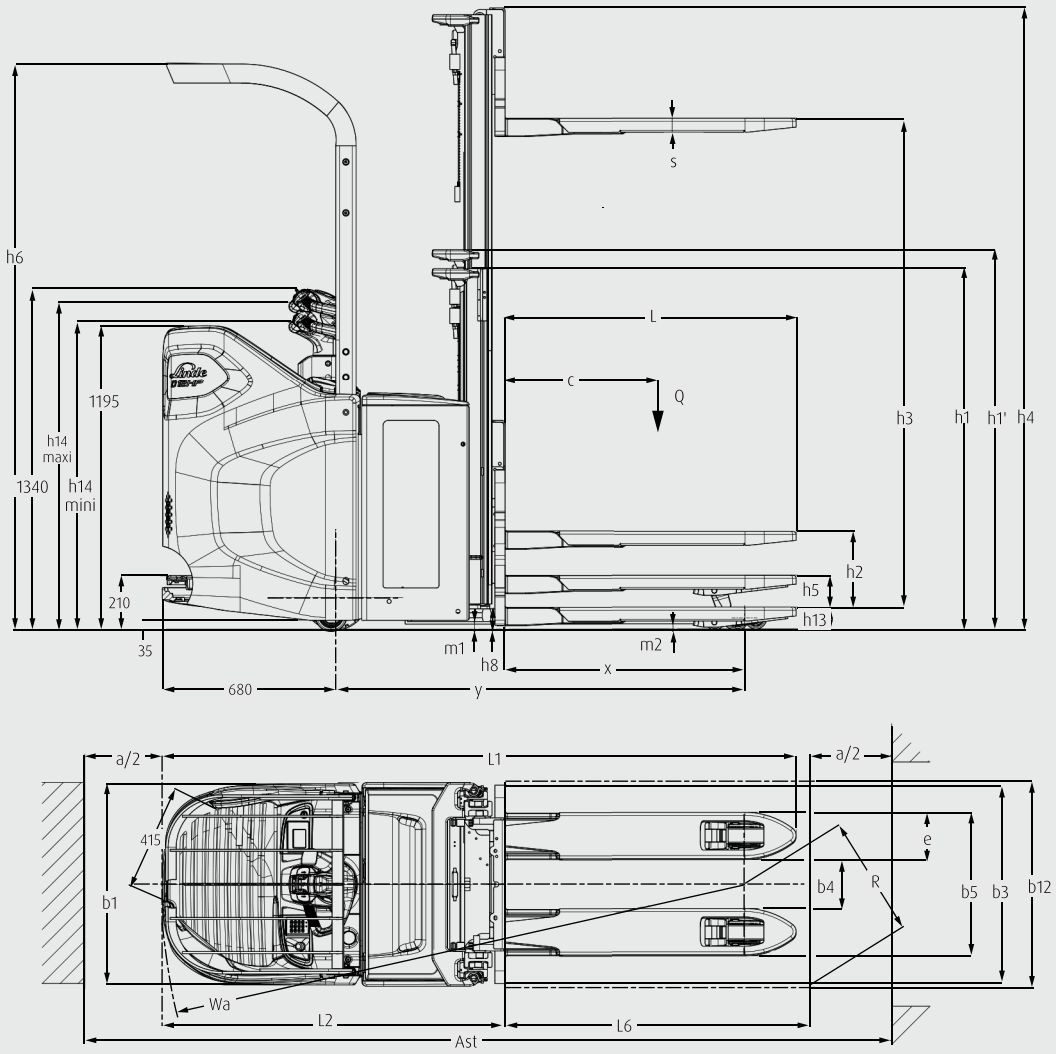
- → Simultaneous pick-up of two pallets for speedy loading and unloading, efficient goods transport and order picking
- → Solid steel skirt around the standing platform to protect the operator in the event of collision (SP version)
- → Unique platform concept with standing position at 45° angle and Linde e-driver control for better all-round vision and an ergonomic body posture (SP version)
- → Foldable vehicle platform for flexible use in pedestrian and driving mode (AP version)
- → High-performance version (HP version) with greater travel and lifting speed for maximum handling performance

TECHNICAL DATA (according to VDI 2198)

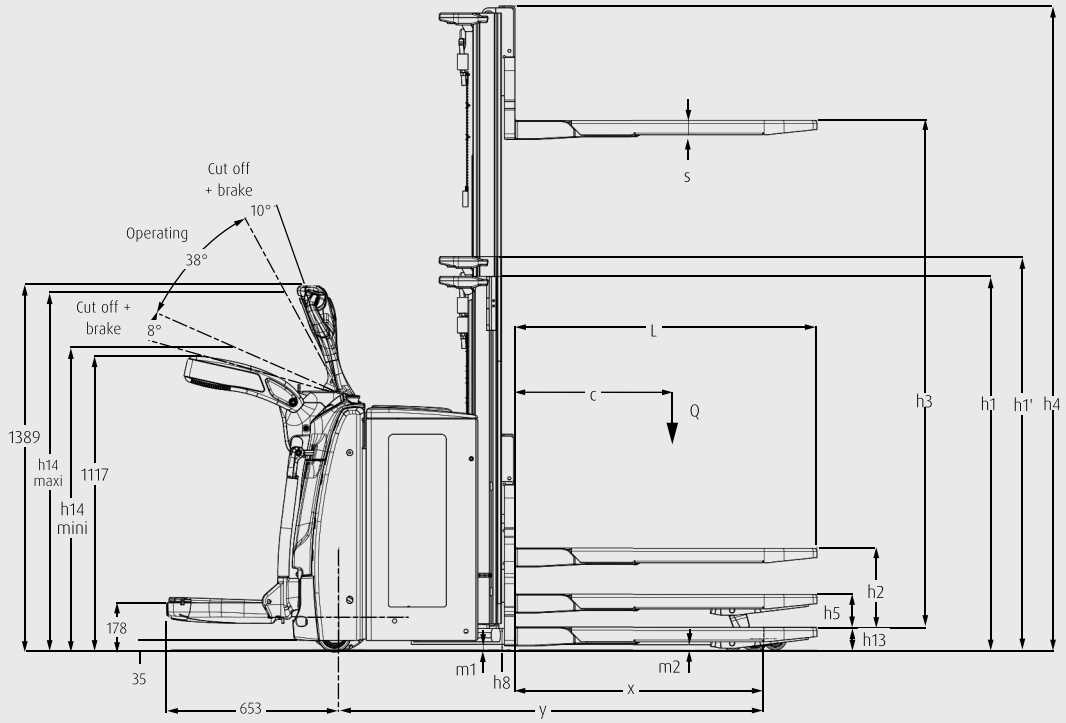
Characteristics	1.1	Manufacturer (abbreviation)		Linde MH	Linde MH	Linde MH	Linde MH
	1.2	**Manufacturer's type designation**		**D12 SP**	**D14 SP**	**D12 HP SP**	**D12 HP AP**
	1.2a	Series		1161-00	1161-00	1161-00	1161-00
	1.3	Drive		Battery	Battery	Battery	Battery
	1.4	Operation		Stand on	Stand on	Stand on	Pedestrian/stand on
	1.5	Rated capacity/rated load	Q (t)	1.2/1.0/1.0/2.0[1)]	1.4/1.0/1.0/2.0 [1)]	1.2/1.0/1.0/2.0[1)]	1.2/1.0/1.0/2.0[1)]
	1.6	Load centre distance	c (mm)	600	600	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	874/944[2)3)]	874/944[2)3)]	874/944[2)3)]	874/944[2)3)]
	1.9	Wheelbase	y (mm)	1541/1611[2)3)4)]	1541/1611[2)3)4)]	1541/1611[2)3)4)]	1541/1611[2)3)4)]
Weight	2.1	Service weight	kg	1498[5)6)]	1498[5)6)]	1372[5)6)]	1348[5)6)]
	2.2	Axle loading, laden front/rear	kg	1102/555 (1759/698)[5)6)7)]	1266/591 (1759/698)[5)6)7)]	1091/545 (1748/688)[5)6)7)]	1089/539 (1746/682)[5)6)7)]
	2.3	Axle loading, unladen front/rear	kg	1156/342[5)6)]	1156/342[5)6)]	1040/332[5)6)]	1022/326[5)6)]
Tyres/chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		Polyurethane	Polyurethane	Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 254 × 102	Ø 254 × 102	Ø 254 × 102	Ø 254 × 102
	3.3	Tyre size, rear		Ø 85 × 85 (2x Ø 85 × 60)[8)]	Ø 85 × 85 (2x Ø 85 × 60)[8]	Ø 85 × 85 (2x Ø 85 × 60)[8]	Ø 85 × 85 (2x Ø 85 × 60)[8]
	3.4	Additional wheels (dimensions)		2x Ø 140 × 50	2x Ø 140 × 50	2x Ø 125 × 60	2x Ø 125 × 60
	3.5	Wheels, number front/rear (x = driven wheels)		1x + 1/2 (1x + 1/4)[8]	1x + 1/2 (1x + 1/4)[8]	1x + 2/2 (1x + 2/4)[8]	1x + 2/2 (1x + 2/4)[8]
	3.6	Tread, front	b10 (mm)	491[2)]	491[2)]	572[2)]	572[2)]
	3.7	Tread, rear	b11 (mm)	380/500[2)]	380/500[2)]	380/500[2)]	380/500[2)]
Dimensions	4.2	Mast height, lowered	h1 (mm)	1915[2)]	1915[2)]	1665[2)]	1665[2)]
	4.3	Free lift	h2 (mm)	1395[2)]	1395[2)]	1145[2)]	1145[2)]
	4.4	Lift	h3 (mm)	4266[2)]	4266[2)]	2424[2)]	2424[2)]
	4.5	Mast height, extended	h4 (mm)	4786[2)]	4786[2)]	2944[2)]	2944[2)]
	4.6	Initial lift	h5 (mm)	115[9)]	115[9)]	115[9)]	115[9)]
	4.7	Height of overhead guard (cabin)	h6 (mm)	2224[2)]	2224[2)]	2224[2)]	-
	4.9	Height drawbar in driving position min./max.	h14 (mm)	1207/1287[2)]	1207/1287[2)]	1207/1287[2)]	1149/1357[2)]
	4.10	Height of wheel arms	h8 (mm)	80[10)]	80[10)]	80[10)]	80[10)]
	4.15	Height, lowered	h13 (mm)	86[10)]	86[10)]	86[10)]	86[10)]
	4.19	Overall length	l1 (mm)	2497[2)4)]	2497[2)4)]	2497[2)4)]	2470[2)4)]
	4.20	Length to fork face	l2 (mm)	1347[2)4)]	1347[2)4)]	1347[2)4)]	1320[2)4)]
	4.21	Overall width	b1/b2 (mm)	800[2)]	800[2)]	800[2)]	800[2)]
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	71/180/1150[11)]	71/180/1150[11)]	71/180/1150[11)]	71/180/1150[11)]
	4.24	Fork carriage width	b3 (mm)	780[2)]	780[2)]	780[2)]	780[2)]
	4.25	Fork spread	b5 (mm)	560/680[2)]	560/680[2)]	560/680[2)]	560/680[2)]
	4.26	Distance between wheel arms/loading surfaces	b4 (mm)	196/316[2)]	196/316[2)]	196/316[2)]	196/316[2)]
	4.31	Ground clearance, laden, below mast	m1 (mm)	135/20[3)]	135/20[3)]	135/20[3)]	135/20[3)]
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	135/20[3)]	135/20[3)]	135/20[3)]	135/20[3)]
	4.33	Load dimension b12 × l6	b12 x l6 (mm)	800 × 1200	800 × 1200	800 × 1200	800 × 1200
	4.34	Aisle width predetermined load dimensions	Ast (mm)	2937/2966[3)4)12)]	2937/2966[3)4)12)]	2937/2966[3)4)12)]	2910/2939[3)4)12)]
	4.34.1	Aisle width for pallets 1000 × 1200 crossways	Ast (mm)	3034/3094[3)4)12)]	3034/3094[3)4)12)]	3034/3094[3)4)12)]	3007/3067[3)4)12)]
	4.34.2	Aisle width with pallet 800 × 1200 lengthways	Ast (mm)	2937/2966[3)4)12)]	2937/2966[3)4)12)]	2937/2966[3)4)12)]	2910/2939[3)4)12)]
	4.35	Turning radius	Wa (mm)	2221/2291[3)4)]	2221/2291[3)4)]	2221/2291[3)4)]	2194/2264[3)4)]
Performance	5.1	Travel speed, laden/unladen	km/h	10/12[13)]	10/12[13)]	11/14[13)]	11/14[13)]
	5.2	Lifting speed, laden/unladen	m/s	0.19/0.32 (0.06/0.09)[6)7)]	0.19/0.32 (0.06/0.09)[6)7)]	0.15/0.27 (0.04/0.07)[6)7)]	0.15/0.27 (0.04/0.07)[6)7)]
	5.3	Lowering speed, laden/unladen	m/s	0.37/0.19 (0.07/0.07)[6)7)]	0.37/0.19 (0.07/0.07)[6)7)]	0.35/0.34 (0.08/0.08)[6)7)]	0.35/0.34 (0.08/0.08)[6)7)]
	5.8	Max. gradeability, laden/unladen	%	8.0/15.0	8.0/15.0	8.0/15.0	8.0/18.0
	5.9	Acceleration time, laden/unladen	s	6.3/4.8	6.3/4.8	5.9/5.0	5.9/5.0
	5.10	Service brake		hydr./electro-mech.	hydr./electro-mech.	hydr./electro-mech.	hydr./electro-mech.
Electric-engine	6.1	Drive motor rating S2 60 min	kW	3	3	3	3
	6.2	Lift motor rating at S3 15%	kW	3.2	3.2	2.6	2.6
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 535 B/3PzS	43 535 B/3PzS	43 535 B/3PzS	43 535 B/3PzS
	6.4	Battery voltage/nominal capacity (5h)	(V)/(Ah)o. kWh	24/375	24/375	24/375	24/375
	6.5	Battery weight (±5%)	kg	333	333	333	333
	6.6	Energy consumption according to DIN EN 16796	kWh/h	0.88	0.94	0.85	0.85
	6.6.1	CO_2 equivalent according to EN 16796	kg/h	0.48	0.51	0.46	0.46
	6.7	Turnover output according to VDI 2198	t/h	54.0	63.0	55.0	55.0
	6.8	Turnover efficiency according to VDI 2198	t/kWh	32	37	33	33
Drive	8.1	Type of drive unit		AC control	AC control	AC control	AC control
Additional data	10.7	Sound pressure level LpAZ (at the operator's seat)	dB(A)	68	68	68	68

1) LP only/LP/LI/LI only
2) (±5 mm)
3) Load arms upraised/lowered
4) -75 mm = 2 PzS vertical; ±0 mm = 3 PzS vertical or side change; +75 mm 4PzS side change
5) Figures with battery, see line 6.4/6.5.
6) (±10%)
7) Figures in parenthesis with initial lift
8) Figures in parenthesis with tandem load wheels
9) (0/-5 mm)
10) (0/+5 mm
11) Reach legs 75 × 150 × 1115
12) Including a 200 mm (min.) operating aisle clearance
13) (±5%)

D12 – D14 SP | D12 HP SP



D12 HP AP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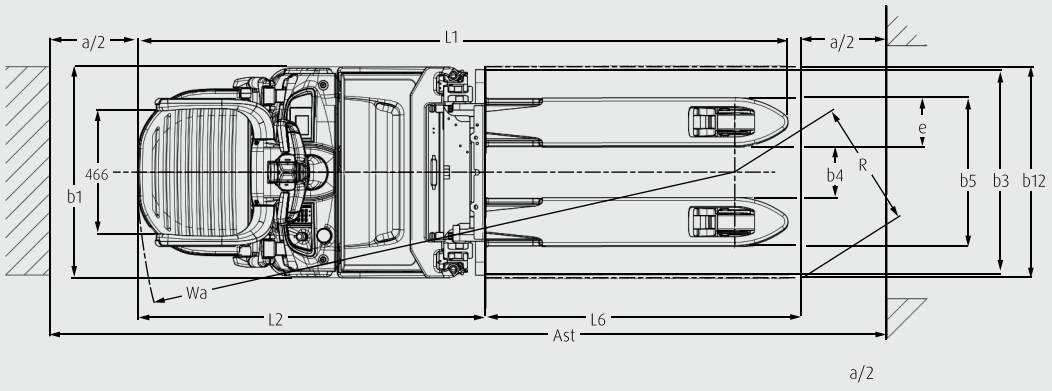
a/2
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b1
e
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b12
Wa
L2
L6
Ast
a/2

D12 HP AP
with side guards

D12 SP
with initial lift

D12 HP SP
with forks up

MAST TABLES

STANDARD MAST (in mm)

Lift	h3: 1574	h3: 1924	h3: 2424	h3: 2924	h3: 3324	h3: 3824
Height measurements	h1: 1240 h2: 150 h4: 2094 h1': 1315	h1: 1415 h2: 150 h4: 2444 h1': 1490	h1: 1665 h2: 150 h4: 2944 h1': 1740	h1: 1915 h2: 150 h4: 3444 h1': 1990	h1: 2115 h2: 150 h4: 3844 h1': 2190	h1: 2365 h2: 150 h4: 4344 h1': 2440
Manufacturer's type designation						
D12 SP	○	○	○	○	○	○
D14 SP	○	○	○	○	○	○
D12 HP SP	○	○	○	–	–	–
D12 HP AP	○	○	○	–	–	–

SIMPLEX MAST (in mm)

Lift	h3: 1462	h3: 1612
Height measurements	h1: 1915 h2: 1395 h4: 1982 h1': -	h1: 2065 h2: 1545 h4: 2132 h1': -
Manufacturer's type designation		
D12 SP	○	○
D14 SP	○	○
D12 HP SP	–	–
D12 HP AP	–	–

DUPLEX MAST (in mm)

Lift	h3: 1574	h3: 1924	h3: 2424	h3: 2924	h3: 3324	h3: 3824
Height measurements	h1: 1240 h2: 720 h4: 2094 h1': -	h1: 1415 h2: 895 h4: 2444 h1': -	h1: 1665 h2: 1145 h4: 2944 h1': -	h1: 1915 h2: 1395 h4: 3444 h1': -	h1: 2115 h2: 1595 h4: 3844 h1': -	h1: 2365 h2: 1845 h4: 4344 h1': -
Manufacturer's type designation						
D12 SP	○	○	○	○	○	○
D14 SP	○	○	○	○	○	○
D12 HP SP	○	○	○	–	–	–
D12 HP AP	○	○	○	–	–	–

TRIPLEX MAST (in mm)

Lift	h3: 3516	h3: 4266
Height measurements	h1: 1665 h2: 1145 h4: 4036 h1': -	h1: 1915 h2: 1395 h4: 4786 h1': -
Manufacturer's type designation		
D12 SP	○	○
D14 SP	○	○
D12 HP SP	–	–
D12 HP AP	–	–

○ Optional equipment – Not available

h1: Height of mast, lowered
h1': Height of mast, with initial lift (+75 mm)
h2: Free lift
h3: Lift
h4: Height of mast, extended

STANDARD AND OPTIONAL EQUIPMENT

	Manufacturer's type designation/equipment	D12 HP SP	D12 HP AP	D12 SP	D14 SP
Safety	Automatic speed reduction when cornering	●	●	●	●
	Key switch	●	●	●	●
	Log in PIN code	○	○	○	○
	Folding sideguards and platform	–	●	–	–
	Unique, safe and intuitive 45° operating position	●	–	●	●
	Linde BlueSpot – visual warning of truck presence integrated in the chassis contours	○	–	○	○
	Linde BlueSpot – visual warning of truck presence mounted on accessory support	–	○	–	–
	Foot detection sensor – trucks slows down or stops if operator's foot is detected outside of the platform contours	○	–	○	○
Service	CAN bus technology	●	●	●	●
Digitalisation	Data transmission online	○	○	○	○
	Data transmission WiFi	○	○	○	○
	Linde connect:desk – local fleet management with different functional modules	○	○	○	○
	Linde connect:cloud – fleet management as a service (hosted version)	○	○	○	○
	Linde Pre-Op Check App – personalised daily check protocol for operational readiness	○	○	○	○
Operation/load handling	Speed Management – intelligent management of speed in double deck mode in relation to load on forks	○	○	○	○
	Soft landing on forks	○	○	○	○
	Lift end stop sensor	○	○	○	○
	Low speed if initial lift lowered	○	○	○	○
	Maximum operating speed limitation (8, 10, 12, 14 km/h, depending on the model)	○	○	○	○
	Load backrest h=700 mm or 1000 mm	○	○	○	○
	Overhead guard	○	–	○	○
	Dedicated work station (with storage compartments)	●	●	●	●
Environment	Coldstore -35°C (in/out) – with metal grid or standard floor mat	○	○	○	○
Workplace	Fully suspended operator compartment – both feet platform and steering unit are suspended	●	●	●	●
	Padded leg rest and backrest	●	–	●	●
	Twin-grip handlebar	●	●	●	●
	Innovative Linde e-driver control perfectly suited for the 45° operation	○	–	○	○
	Height-adjustable steering unit	○	–	○	○
	Multifunction coloured display hour meter, maintenance indication, battery discharge indicator and internal fault code indication	○	○	○	○
	Accessory support	○	○	○	○
	Support for data terminal and power supply cable 24V	○	○	○	○
	Scanner support and clipboard	○	○	○	○
	Electrical socket USB 5V	○	–	○	○
Mast	Standard	○	○	○	○
	Simplex	–	–	○	○
	Duplex	○	○	○	○
	Triplex	–	–	○	○
	Mast protection: mesh	○	○	○	○
Attachment /forks	Width over fork carriage 560 mm with fork length 1150 mm	○	○	○	○
	Width over fork carriage 680 mm with fork length 1150 mm	○	○	○	○
Axles and tyres	Drive wheel heavy duty, polyurethane non-marking	●	●	●	●
	Drive wheel high grip, polyurethane non-marking	○	○	○	○
	Drive wheel rubber	–	–	○	○
	Single load wheel, polyurethane	●	●	●	●
	Tandem load wheel, polyurethane (also available in greasable version)	○	○	○	○
	Castor wheels with spring cylinder	●	●	●	●
	Hydraulic castor wheels, electronically controlled	○	○	○	○
	Double castor wheel (also available in greasable version)	–	–	●	●
Drive and brake system	Power steering	●	●	●	●
	Maintenance-free AC motor	●	●	●	●
	Electromagnetic braking system (or electromechanic)	●	●	●	●
	Li-ION and lead-acid technology available with different battery capacities depending on the model	○	○	○	○
	Integrated charger for lead-acid and Li-ION batteries	○	○	○	○
	External chargers available	○	○	○	○
Lighting	Working lamp – with on/off switch for operation in dark environments	○	○	○	○

● Standard equipment ○ Optional equipment – Not available

CHARACTERISTICS

Safety enhanced with speed reduction when cornering

Safety

→ Automatic adjustment of operating speed when cornering to prevent risky manoeuvres
→ Wide mast design for optimal visibility of the load and the immediate vehicle environment
→ Operator always remains within the contours of the vehicle for optimum protection in any situation
→ Solid steel skirt as a protective shield to protect the operator from injury in the event of a collision (SP version)
→ Optional foot detection can also slow down or bring the vehicle to a smooth stop when operator's feet leave the platform (SP version)

Ergonomic, height-adjustable tiller

Ergonomics

→ Linde OptiLift assistance system for precise control of mast functions at high working speeds and quiet, energy-saving load handling
→ Fully decoupled operator platform to protect the operator from vibrations and shocks
→ Innovative steering concept Linde e-driver for optimum, single-handed control of the vehicle in the 45° position if required (SP version)
→ Electric power steering for effortless vehicle control in any work situation
→ Automatic and gradual adjustment of the travel speed to the steering angle for precise manoeuvring in tight spaces

Perfect combination between power and manoeuvrability

Handling

→ High residual capacities for maximum vehicle stability when working at height
→ Powerful 3 kW three-phase motor for rapid acceleration even with double load
→ High top speeds (14 km/h without load, 11 km/h with load, 7.5 km/h with double load) for fast transport travel (HP version)
→ Five-point configuration with optional electrically controlled and hydraulically operated castor wheels for perfect vehicle stability (HP version)
→ Optional shortened truck version with Li-ION battery allows for smaller turning radius, especially in tight spaces (HP version)

Easy access to components and data

Service

→ Robust 3 kW three-phase motor for long service intervals and low maintenance costs
→ Solid construction with durable parts and sturdy chassis for maximum vehicle availability
→ Design-to-service principle for effortless accessibility to all relevant components
→ Innovative CAN bus structure for fast error analysis via diagnostic connector
→ Modern E/E architecture allows remote installation of updates and new functions

Presented by:

Subject to modification in the interest of progress. Illustrations and technical details could include options and are not binding for actual constructions. All dimensions subject to usual tolerances.

Linde Material Handling

Linde Material Handling GmbH
Carl-von-Linde-Platz | 63743 Aschaffenburg | Germany
Phone + 49 6021 99 0 | Fax + 49 6021 99 1570
www.linde-mh.com | info@linde-mh.com

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