Linde Material Handling

Automated Pallet Stacker

L-MATIC AC k

Capacity 1.4 t | Series 1171

ION PB

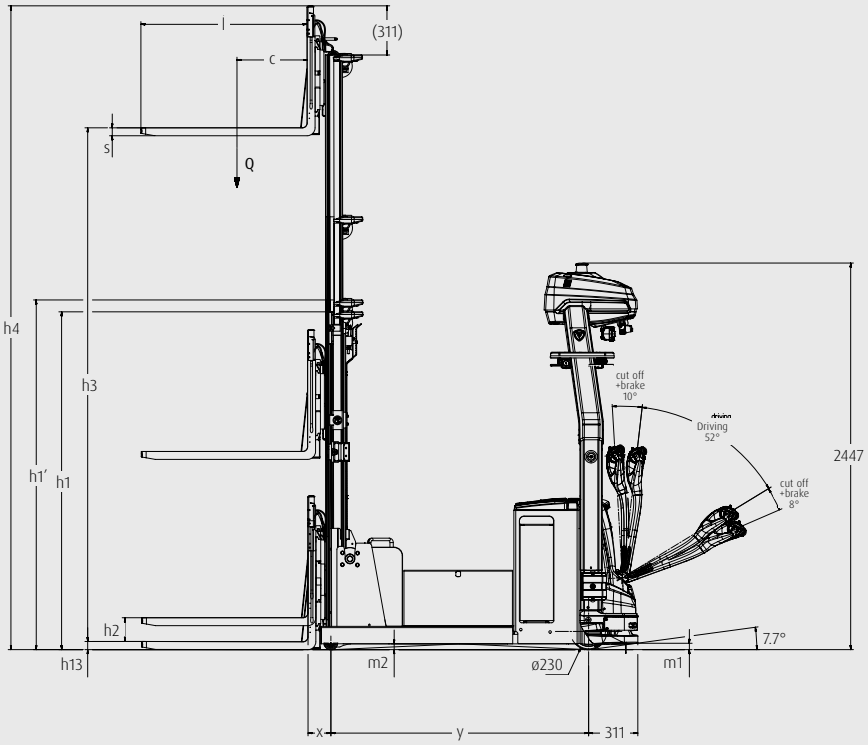
Flexible use for optimised automation

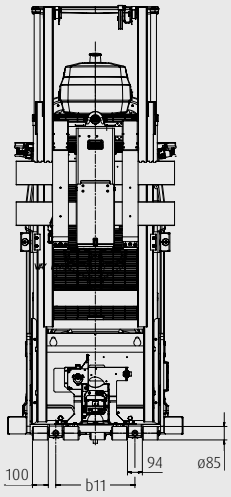
→ Automated counterbalance pallet stackers for flexible load handling
→ Cantilevered fork for pick-up of closed load carriers
→ Capacity up to 1400 kg and storage height up to 3.8 metres
→ Ideal for ground transport and storage/retrieval in wide-aisled warehouses
→ Flexible handling of standard and special load carriers
→ Various fork lengths and variants available

TECHNICAL DATA (according to VDI 2198)

Characteristics	1.1	Manufacturer (abbreviation)		Linde MH	Linde MH
	1.2	**Manufacturer's type designation**		**L-MATIC 12 AC k**	**L-MATIC 16 AC k**
	1.2a	Series		1171-01	1171-01
	1.3	Drive		Battery	Battery
	1.4	Operation		manual/automatic	manual/automatic
	1.5	Rated capacity/rated load	Q (t)	1.0	1.4
	1.6	Load centre distance	c (mm)	525	525
	1.8	Load distance, centre of drive axle to fork	x (mm)	145	145
	1.9	Wheelbase	y (mm)	1262	1627
Weight	2.1	Service weight	kg	2391[1)]	2486[1)]
	2.2	Axle loading, laden front/rear	kg	708/2683[1)]	779/3107[1)]
	2.3	Axle loading, unladen front/rear	kg	1239/1152[1)]	1356/1130[1)]
Tyres/chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø230×100	Ø230×100
	3.3	Tyre size, rear		Ø85×105	Ø85×105
	3.5	Wheels, number front/rear (x = driven wheels)		1x/4	1x/4
	3.6	Tread, front	b10 (mm)	-	-
Dimensions	4.2	Mast height, lowered	h1 (mm)	2015	2015
	4.4	Lift	h3 (mm)	2844	2844
	4.5	Mast height, extended	h4 (mm)	3639	3639
	4.19	Overall length	l1 (mm)	2768	3133
	4.20	Length to fork face	l2 (mm)	1718	2083
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	50/100/1050	50/100/1050
	4.25	Fork spread	b5 (mm)	540-850	540-850
	4.31	Ground clearance, laden, below mast	m1 (mm)	30	30
Electric-engine	6.1	Drive motor rating S2 60 min	kW	2.3	2.3
	6.2	Lift motor rating at S3 15%	kW	3.2	3.2
	6.3	Battery according to DIN 43531/35/36 A, B, C, no		43535 B	43535 B
	6.4	Battery voltage/nominal capacity K5	(V)/(Ah) o. kWh	24/375	24/500
Drive	8.1	Type of drive unit		LAC	LAC

1) Figures with battery, see line 6.4/6.5


l
(311)
c
s
Q
h4
h3
h1'
h1
h2
h13
m2
ø230
m1
x
y
311
2447
cut off
+brake
10°
driving
Driving
52°
cut off
+brake
8°
7.7°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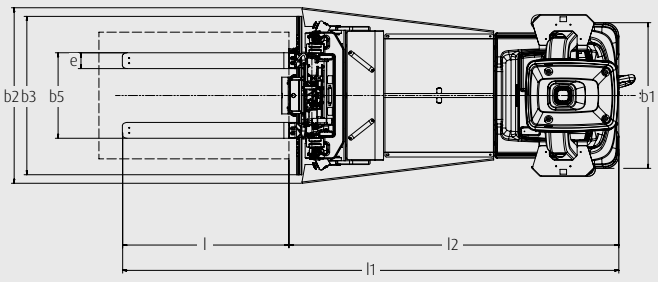
e
b2
b3
b5
b1
l
l2
l1

MAST TABLES

STANDARD MAST (in mm)

Lift	h3:2844	h3: 3244	h3: 3744	h3: 4144
Height measurements	h1: 2015 h1': 2090 h2: 150 h3+h13: 2994 h4: 3639	h1: 2215 h1': 2290 h2: 150 h3+h13:3294 h4: 4039	h1: 2465 h1': 2540 h2: 150 h3+h13: 3794 h4: 4539	h1: 2665 h1': 2740 h2: 150 h3+h13: 4194 h4: 4939
Manufacturer's type designation				
L-MATIC AC k	○	○	○	○

○ Optional equipment

h1: Mast height, lowered
h1': Lifting height while driving (mast S)
h2: Free lift
h3: Lift
h3+h13: Lifting height + fork height
h4: Mast height, extended

Note: For standard masts, the freelift h2 is depending on h1'

STANDARD AND OPTIONAL EQUIPMENT

	Manufacturer's type designation/equipment	L-MATIC AC k
Safety	360° safety scanner	●
	Visual warning indicators – multicolour flashing lights indicating vehicle status (warnings and alarms)	●
	Acoustic warning signals	●
	Emergency stop buttons (emergency stop switches) easily accessible from all surrounding positions	●
	2D laser protection curtain in the direction of travel for detecting obstacles above ground level	○
	2D laser protection curtains, laterally mounted, for detecting obstacles above ground level	○
	Linde BlueSpot – visual drive path warning for pedestrians and co-workers	○
	Red warning lines in the direction of travel – lights project red markings onto the ground in the direction of travel	○
	Red warning lines at sides – red lines projected onto floor at either side of the vehicle	○
Operation/ load handling	Load backrest	○
	Soft landing of the forks	●
	Safety fields for longitudinal transport with different fork lengths	○
	Safety fields for lateral transport with different fork lengths	○
	Pallet detection for standard pallets, e.g. EPAL1, industrial pallet, chemical pallet	●
	Pallet detection for customer-specific load carriers	○
	Sensor for detecting stacked loads	○
Digitalisation	Wi-Fi data transmission	●
Mast	Standard mast 2844/2015/150 mm	○
	Standard mast 3244/2215/150 mm	○
	Standard mast 3744/2465/150 mm	○
	Standard mast 4144/2665/150 mm	○
Attachments/ forks	Fork 850/100/50 mm	○
	Fork 1050/100/50 mm	○
	Fork 1250/100/50 mm	○
Axles and tyres	Polyurethane drive wheel	●
	Polyurethane single load roller	●
Energy	Lead-acid battery 375 Ah, 500 Ah	○
	Li-ION battery 6/9/12 kWh	○
	Charging contacts for automated intermediate charging	○
	Charging station for automated charging	○
	Lead-acid chargers	○
	Li-ION chargers	○

● Standard equipment ○ Optional equipment

CHARACTERISTICS

Safety ensured by comprehensive sensor system

Safety

→ 360° safety scanner with automatic speed adjustment
→ Laser-based safety technology for high driving speeds
→ Optional 2D laser curtain detects objects above ground level
→ Extensive sensors for load and environment detection
→ Acoustic and optical warning signals plus emergency-off switches

Flexible handling thanks to cantilever fork arms

Handling

→ Direct pick-up of closed load carriers from the ground
→ Seamless connection to Linde Warehouse Manager
→ Scalable fleet solution thanks to MATIC:move/MATIC:move+ control software
→ Optional sensors for detecting stacked load carriers
→ Easy integration into existing warehouse systems
→ Optional automatic charging function for continuous operation

Service-friendly design

Service

→ Comprehensive service network enables fast maintenance
→ Digital twin for safe software and hardware maintenance
→ Downtime minimised thanks to predictive maintenance
→ Modern diagnostic tools for efficient on-site service
→ Reliable availability of spare parts

Process-oriented as standard

Sales and realisation

→ Individual, automated solutions with dynamic simulation and the option to run a demo in a real process environment on site
→ Analysis of manual handling processes and optimisation of the degree of automation as required for specific customer needs
→ The control software MATIC:move for simple applications with a few trucks and MATIC:move+ for complex tasks offer flexible adaptations, a high level of scalability and optimum process control

Presented by:

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