

Features



- Safety**

 - Three independent braking systems.
 - Electrical and hydraulic overload protection.
 - Emergency circuit isolator.
 - Keyswitch.
 - Electric horn.
 - Cushioned non-slip material on operator's platform.
 - Polycarbonate screen on mast.
 - All pivoting wheels operate within chassis.
 - Gradient start facility.
 - Overhead guard (height 2 050 mm).
- Standard equipment**

All items as shown under safety.

Drive motor - 2.0 kW.

Pump motor - 3.0 kW.

Electronic control of traction (LDC) and lift/lower (Optilift®).

Linde twin accelerator pedals.

Lift/lower operated by Optilift® mini-lever.

Electric steering.
- Full suspension PVC seat.

Cushion rubber drive wheel.

Polyurethane castor wheels.

Polyurethane tandem load wheels.

Clearview standard mast

– 2 510 mm lift height (L 12 R/RI).

– 2 429 mm lift height (L 16 R/RI).

Width over forks x length - 560 x 1 150 mm.

Battery on rollers in truck.

Multi-function indicator.

Suitable for operation at –10°C.

Standard colour scheme – vermilion and charcoal grey.
- Batteries and chargers**

24 V, 360 Ah to 540 Ah to DIN 43535A.

A range of chargers is available to suit application and mains supply requirements.
- Optional equipment**

Clearview simplex mast with lift height 1 548 mm (L 12 R/RI).
- Clearview standard masts with lift heights to 4 810 mm (L 12 R/RI), 4 730 mm (L 16 R/RI).

Clearview duplex masts with lift heights to 3 910 mm (L 12 R/RI), 3 830 mm (L 16 R/RI).

Clearview triplex mast with lift heights to 4 802 mm (all models).

Steered wheel position indicator.

Mast screen - polyurethane or mesh.

Single accelerator pedal.

Fabric seat.

Alternative fork configurations.

Polyurethane drive wheel.

Non-marking or wet-grip cushion rubber drive wheel.

Load backrest - 1 000 mm high.

Cold store protection to –35°C (in/out).

Battery roller stand for two batteries.

Battery roller trolley for one battery.

3m battery changing cable.

Other options available on request.

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national network company on **0845 608 5000**



Rider seated pallet stacker 1 200 kg and 1 600 kg

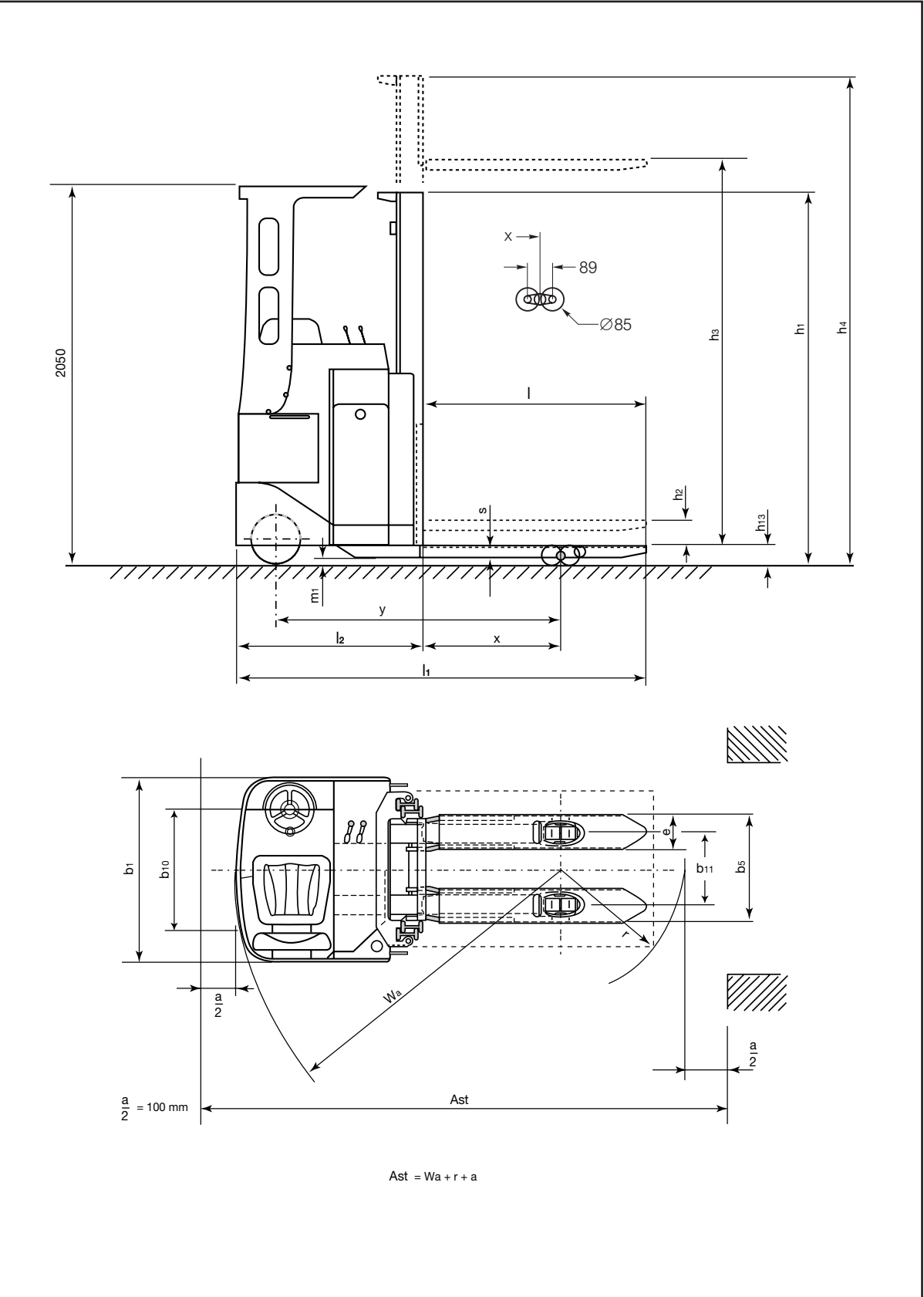


- Introduction**
- The rider seated pallet stacker models **L 12 R** and **L 16 R**, together with initial lift versions **L 12 RI** and **L 16 RI** have been developed for intensive industrial applications where maximum work throughput per shift is demanded for duties such as loading/unloading, rapid pallet transfer, storage in narrow aisles and block stacking. The performance obtained from these compact, easy to operate trucks enables the operator to work continuously over long periods with maximum efficiency. The four point configuration ensures exceptional stability and high residual capacities.
- Features**
- Compact profiled design for optimum manoeuvrability and versatility.
 - Energy saving Linde Digital Control (LDC) of traction for smooth, safe load handling and maximum number of work cycles per battery charge.
 - Optilift® control of lift and lower for optimum stacking performance and ultra-fast lifting.
 - Easy battery change facility for use in multi-shift operations.
 - Automatic electric braking.
 - Smooth, responsive electric steering.
 - Automatic equalising linkage on initial lift versions.
- Operator's compartment and controls**
- A low step facilitates access. The ergonomically designed, compact compartment features a sideways seating position allowing ease of operation at maximum speed in both directions, combined with rapid manoeuvring in comfort and safety. The Linde twin accelerator pedals enable smooth, energy efficient load handling in conjunction with mini-lever operation of hydraulic functions.
- The specially designed full suspension seat supports every operational body movement
- with full lateral, lumbar, weight and height adjustments to suit every operator.
- A multi-function indicator provides precise monitoring of truck operation and components, ie: audible warning of component failure; indication of type of failure and component affected; maintenance check due date; battery discharge and excessive discharge protection; hour meter; date and time; steered wheel position indicator (option).
- Chassis**
- The 950 mm wide chassis is constructed using formed steel pressings which reduce the number of components and welds to an absolute minimum and provide maximum strength and rigidity. The motors, sub components and electronics are all protected within the rugged structure and are accessed via a hinged door panel. The battery is mounted on rollers to enable lateral changing.
- Drive and transmission**
- The 2.0 kW drive motor is mounted directly onto a two stage gearbox with a ratio of 16.95:1 assuring high performance operation at all times. The drive wheel, gearbox and motor form a single unit which is off-set and is steered electrically with up to 90° turn either side and provides exceptionally light steering and excellent manoeuvrability.
- Electrical system**
- The truck has the advanced 24V, LDC control system which governs traction and gives optimum utilisation of battery energy, precise, responsive and infinitely variable speed control, smooth acceleration and braking, and the ability to pull away from rest on a gradient without roll back. A special feature is the automatic braking which allows the truck to stop within a defined distance thus eliminating the risk of roll back. It also allows the truck to travel downhill at a regulated speed, with or without load, and prevents running on.

- Wheels and forks**
- The cushion rubber drive wheel and twin polyurethane castor wheels are positioned within the chassis to prevent impact damage. The pallet support legs are fitted with polyurethane tandem load wheels. The initial lift versions provide 125 mm lift which gives excellent clearance over ramps and bridge plates, and enables horizontal transport of up to two tonnes and, in addition, two pallet transfer. Various fork configurations are available to suit individual applications.
- Masts and hydraulics**
- The comprehensive range of clearview simplex, standard (part free lift) and duplex or triplex (full free lift) masts are bolted to the chassis and have sealed for life angled rollers to ensure maximum mast rigidity. The angled roller design provides excellent alignment of the moving mast sections with minimum friction, contributing to fast lift/lower movements.
- The Optilift® controller acts directly on the lift motor, varying its rotation speed according to demand, to provide flexibility and precision for load positioning and also at high lift speed. The system incorporates automatic 'soft-stop' at the end of the lowering sequence.
- A powerful 3.0 kw pump motor gives rapid lift movement for optimum productivity.

- Braking**
- The trucks have three independent braking systems:
1. Electro-magnetic foot brake on the drive motor which also acts as a parking brake when the operator leaves the seat. The parking brake is released by a switch.
 2. Automatic electric braking actuated when the accelerator is released.
 3. Controlled electric braking by selection of opposite direction of travel.

LINDE			Pallet stacker		Data sheet for material handling equipment				139	VDI 2198
			Designation		to VDI 3586				Series no	
DECEMBER 2003			Manufacturer's data and design characteristics					Model types		Registration note
Characteristics	1.1	Manufacturer		Linde	Linde	Linde		Linde		
	1.2	Model designation		L 12 R	L 16 R	L 12 RI		L 16 RI		
	1.3	Power unit: battery, diesel, petrol, LP gas, mains power		Battery	Battery	Battery		Battery		
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		seated	seated	seated		seated		
	1.5	Load capacity	Q (t)	1.2	1.6	1.2 (2.0) ¹⁾		1.6 (2.0) ¹⁾		
	1.6	Load centre	c (mm)	600	600	600		600		
	1.8	Axle centre to fork face	x (mm)	703	666	717/639 ²⁾		680/602 ²⁾		
	1.9	Wheelbase	y (mm)	1 512	1 512	1 512/1 434 ²⁾		1 512/1 434 ²⁾		
Weights	2.1	Service weight	kg	1 560	1 560	1 560		1 560		
	2.2	Axle load with load, front (drive)/rear (load)	kg	1 110/1 650	1 200/1 960	1 110/1 650		1 200/1 960		
	2.3	Axle load without load, front (drive)/rear (load)	kg	1 045/515	1 045/515	1 045/515		1 045/515		
Wheels and tyres	3.1	Tyres, front (drive)/rear (load) C = cushion rubber, P = poly.		C+P/P	C+P/P	C+P/P		C+P/P		
	3.2	Tyre size, front (drive)		ø 250 x 100	ø 250 x 100	ø 250 x 100		ø 250 x 100		
	3.3	Tyre size, rear (load)		ø 85 x 60	ø 85 x 60	ø 85 x 60		ø 85 x 60		
	3.4	Auxiliary wheels (dimensions)		ø 125 x 45	ø 125 x 45	ø 125 x 45		ø 125 x 45		
	3.5	Wheels: number front (drive)/rear (load)		1x+2/4	1x+2/4	1x+2/4		1x+2/4		
	3.6	Track width, front (drive)	b ₁₀ (mm)	653	653	653		653		
	3.7	Track width, rear (load)	b ₁₁ (mm)	380	380	380		380		
Dimensions	4.2	Height of mast, lowered	h ₁ (mm)	1 740 ²⁾	1 740 ²⁾	1 740 ²⁾		1 740 ²⁾		
	4.3	Free lift	h ₂ (mm)	150	150	150		150		
	4.4	Lift	h ₃ (mm)	2 424	2 344	2 424		2 344		
	4.5	Height of mast, extended	h ₄ (mm)	2 960	2 880	2 960		2 880		
	4.6	Initial lift	h ₅ (mm)	–	–	125		125		
	4.7	Height of overhead guard (cabin)	h ₆ (mm)	2 050	2 050	2 050		2 050		
	4.8	Height of seat/stand-on platform	h ₇ (mm)	910	910	910		910		
	4.15	Fork height, lowered	h ₁₃ (mm)	85	85	85		85		
	4.19	Overall length	l ₁ (mm)	2 116	2 153	2 130		2 167		
	4.20	Length to fork face	l ₂ (mm)	966	1 003	980		1 017		
	4.21	Overall width	b ₁ /b ₂ (mm)	950	950	950		950		
	4.22	Fork dimensions	s/e/l(mm)	75 x 180 x 1 150	65 x 190 x 1 150	75 x 180 x 1 150		65 x 190 x 1 150		
	4.24	Fork carriage width, top/bottom	b ₃ (mm)	780	780	780		780		
	4.25	Fork spread, minimum/maximum	b ₅ (mm)	560	560	560		560		
	4.31	Ground clearance, mast	m ₁ (mm)	27	27	27		27		
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	26	26	26		26		
	4.33	Aisle width with pallet 1 000 x 1 200 across forks	A _{st} (mm)	2 540 (2 205) ³⁾	2 550 (2 240) ³⁾	2 560 (2 190) ³⁾		2 570 (2 225) ³⁾		
4.34	Aisle width with pallet 800 x 1 200 along forks	A _{st} (mm)	2 510 (2 405) ³⁾	2 530 (2 440) ³⁾	2 510 (2 390) ³⁾		2 540 (2 425) ³⁾			
4.35	Turning radius	W _a (mm)	1 707	1 707	1 707/1 629 ²⁾		1 707/1 629 ²⁾			
Performance	5.1	Travel speed, with/without load	km/h	8.2/9.2	8.2/9.2	8.2/9.2		8.2/9.2		
	5.2	Lifting speed, with/without load	m/s	0.14/0.38	0.14/0.38	0.16/0.38		0.14/0.38		
	5.3	Lowering speed, with/without load	m/s	0.38/0.27	0.37/0.27	0.38/0.27		0.37/0.27		
	5.7	Climbing ability, with/without load, 30 minute rating	%	3/7	3/7	3/7		3/7		
	5.8	Maximum climbing ability, with/without load, 5 minute rating	%	12/17	9/17	12/17		9/17		
	5.10	Service brake		Electro-mag/elec	Electro-mag/elec	Electro-mag/elec		Electro-mag/elec		
Drive	6.1	Drive motor, 60 minute rating	kW	2.0	2.0	2.0		2.0		
	6.2	Lift motor, 15% rating	kW	3.0	3.0	3.0		3.0		
	6.3	Battery according to DIN 43531/35/36 A, B, C, no		DIN 43535A	DIN 43535A	DIN 43535A		DIN 43535A		
	6.4	Battery voltage/rated capacity (5 h)	V/Ah	24/450 ⁴⁾	24/450 ⁴⁾	24/450 ⁴⁾		24/450 ⁴⁾		
	6.5	Battery weight (±5%)	kg	372 ⁴⁾	372 ⁴⁾	372 ⁴⁾		372 ⁴⁾		
	6.6	Power consumption according to VDI cycle	kWh/h	⁵⁾	⁵⁾	⁵⁾		⁵⁾		
Other	8.1	Type of drive control		Electronic (LDC)	Electronic (LDC)	Electronic (LDC)		Electronic (LDC)		
	8.4	Noise level at operator's ear	dB (A)	<78.6	<78.6	<78.6		<78.6		
1) Capacity when used as a pallet transporter with initial lift only elevated.										
2) Initial lift lowered/raised.										
3) Figures shown in brackets are for intrusive stacking.										
4) Alternative batteries may affect weights, overall length and 90° stacking aisle widths.										
5) Refer to manufacturer for figures.										



L 12 R/L 12 RI MAST VARIATIONS		Simplex	Standard								Duplex						Triplex	
Lift	h ₃	1 462	1 924	2 424	2 924	3 324	3 824	4 224	4 724	1 924	2 424	2 924	3 324	3 824	4 266	4 716		
Lift height	h ₃ +h ₁₃	1 548	2 010	2 510	3 010	3 410	3 910	4 310	4 810	2 010	2 510	3 010	3 410	3 910	4 352	4 802		
Height of mast, lowered	h ₁	1 915	1 490	1 740	1 990	2 190	2 440	2 640	2 890	1 415	1 665	1 915	2 115	2 365	1 915	2 065		
Height of mast, extended	h ₄	1 998	2 460	2 960	3 460	3 860	4 360	4 760	5 260	2 460	2 960	3 460	3 860	4 360	4 802	5 252		
Free lift	h ₂	–	150	150	150	150	150	150	150	962	1 212	1 462	1 662	1 912	1 379	1 529		
L 16 R/L 16 RI MAST VARIATIONS		Simplex	Standard								Duplex						Triplex	
Lift	h ₃	–	1 844	2 344	2 844	3 244	3 744	4 144	4 644	1 844	2 344	2 844	3 244	3 744	4 266	4 716		
Lift height	h ₃ +h ₁₃	–	1 930	2 430	2 930	3 330	3 830	4 230	4 730	1 930	2 430	2 930	3 330	3 830	4 352	4 802		
Height of mast, lowered	h ₁	–	1 490	1 740	1 990	2 190	2 440	2 640	2 890	1 415	1 665	1 915	2 115	2 365	1 915	2 065		
Height of mast, extended	h ₄	–	2 380	2 880	3 380	3 780	4 280	4 680	5 180	2 380	2 880	3 380	3 780	4 280	4 760	5 252		
Full free lift (duplex/triplex)	h ₂	–	150	150	150	150	150	150	150	879	1 129	1 379	1 579	1 829	1 379	1 529		

$$Ast = Wa + r + a$$