



Electric Reach Trucks

Capacity 1400 kg – 2000 kg
R14S, R16S, R20S *Active* SERIES 115-03

Safety

The Linde Active range has established itself as a leading performer in intensive narrow aisle storage and retrieval applications, with superb levels of operator comfort, safety and impressive productivity ratios.

Performance

The Linde Active drive and lift concept employing advanced Linde control technology translates the powerful output of the AC motors into seamless productivity. A comprehensive selection of batteries ensures that each truck is precisely matched to the demands of individual applications.

Comfort

A perfect interface between operator and truck has been achieved with the Linde ergonomic design concept, including spacious cab, comfort-class seat with lumbar support and intuitive layout of all controls. The operator's working environment ensures optimum performance.

Reliability

The Linde Active range is constructed for heavy, sustained duty. Its compact robot-welded chassis is designed for maximum strength and durability. The rugged construction and components provide a low centre of gravity for excellent stability and high residual capacities.

Productivity

Efficiency at work, efficiency in servicing. With uptime ratios of 1000 hours between services and a computerised diagnostic system, maintenance intervals are minimal and operating costs are reduced. All the truck's performance parameters can easily be configured to match the requirements of the customer's application.

Linde Material Handling

Linde

Technical data

Characteristics	1.1	Manufacturer		LINDE	LINDE	LINDE	
	1.2	Model designation		R 14 <i>Active</i>	R 14HD <i>Active</i>	R 14N <i>Active</i>	
	1.3	Power unit: battery, diesel, petrol, LP gas, mains power		Battery	Battery	Battery	
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		seated	seated	seated	
	1.5	Load capacity	Q (kg)	1400 ³⁾	1400 ³⁾	1400 ³⁾	
	1.6	Load centre	c (mm)	600/500	600/500	600/500	
	1.8	Axle centre to fork face	x (mm)	311	270	346	
	1.9	Wheelbase	y (mm)	1275	1275	1385	
	Weights	2.1	Service weight	kg	2890 ⁴⁾	3020 ⁴⁾	2820 ⁴⁾
2.3		Axle load without load, front (drive)/rear (load)	kg	1800/1090 ⁴⁾	1830/1190 ⁴⁾	1760/1060 ⁴⁾	
2.4		Axle load, fork outreached with load, front (drive)/rear (load)	kg	520/3770 ⁴⁾	500/3920 ⁴⁾	585/3635 ⁴⁾	
2.5		Axle load, fork retracted with load, front (drive)/rear (load)	kg	1485/2805 ⁴⁾	1480/2940 ⁴⁾	1500/2720 ⁴⁾	
3.1		Tyres, front (drive)/rear (load) C = cushion rubber, P = polyurethane		P/P	P/P	P/P	
Wheels and tyres	3.2	Tyre size, front (drive) wheel	mm	343 x 135	343 x 135	343 x 135	
	3.3	Tyre size, rear (load) wheel	mm	285 x 100	285 x 100	285 x 100	
	3.5	Wheels, number front (drive)/rear (load) (x = driven)		1x/2	1x/2	1x/2	
	3.6	Track width, front (drive)	b10 (mm)	0	0	0	
	3.7	Track width, rear (load)	b11 (mm)	1150	1150	980	
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	α/β (°)	2/4	2/4	2/4
		4.2	Height of mast, lowered	h1 (mm)	2110	2930	2110
4.3		Free lift	h2 (mm)	1261	2081	1261	
4.4		Lift	h3 (mm)	4655 ¹⁾	6355 ¹⁾	4655 ¹⁾	
4.5		Height of mast, extended	h4 (mm)	5395	7139	5395	
4.7		Height of overhead guard (cab)	h6 (mm)	2110	2110	2110	
4.8		Height of seat, minimum/maximum	h7 (mm)	940/1030	940/1030	940/1030	
4.10		Height of reach legs	h8 (mm)	310	310	310	
4.19		Overall length	l1 (mm)	2334	2375	2415	
4.20		Length to fork face	l2 (mm)	1184	1225	1265	
4.21		Overall width	b1/b2 (mm)	1234/1250	1234/1250	1054/1080	
4.22		Fork dimensions	s/e/l (mm)	40 x 80 x 1150	45 x 100 x 1150	40 x 80 x 1150	
4.23		Fork carriage to DIN 15173, class/form A, B		2A	2A	2A	
4.24		Width of fork carriage	b3 (mm)	830	830	830	
4.25		Fork spread, minimum/maximum	b5 (mm)	296/690	316/710	316/520	
4.26		Width between reach legs	b4 (mm)	922	922	752	
4.28		Reach travel	l4 (mm)	496	460	536	
4.31		Ground clearance, mast	m1 (mm)	75	75	75	
4.32		Ground clearance, centre of wheelbase	m2 (mm)	75	75	75	
4.33		Aisle width, pallet 1000 x 1200 across forks	Ast (mm)	2655	2685	2710	
4.34		Aisle width, pallet 800 x 1200 along forks	Ast (mm)	2715	2750	2765	
4.35		Turning radius	Wa (mm)	1540	1540	1620	
4.37		Length of chassis	l7 (mm)	1638	1638	1754	
Performance		5.1	Travel speed, with/without load	km/h	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾
		5.2	Lifting speed, with/without load	m/s	0.42/0.66 ⁴⁾	0.36/0.51 ⁴⁾	0.42/0.66 ⁴⁾
		5.3	Lowering speed, with/without load	m/s	0.55/0.45 ⁴⁾	0.55/0.45 ⁴⁾	0.55/0.45 ⁴⁾
		5.4	Reach speed, with/without load	m/s	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾
	5.7	Climbing ability, with/without load, 30 minute rating	%	4.5/8.2	4.5/8.2	4.3/8	
	5.8	Maximum climbing ability, with/without load, 5 minute rating	%	10/10	10/10	10/10	
	5.9	Acceleration time, with/without load	s	5.5/4.8 ⁹⁾	5.8/5 ⁹⁾	5.5/4.8 ⁹⁾	
	5.10	Service brake		Hydraulic/electric	Hydraulic/electric	Hydraulic/electric	
	Drive	6.1	Drive motor, 60 minute rating	kW	6.5	6.5	6.5
		6.2	Lift motor, 15 % rating	kW	14	14	14
6.3		Battery to DIN/IEC		43531C/254-2	43531C/254-2	43531B/254-2	
6.4		Battery voltage/rated capacity (5h)	V/Ah	48/420 ²⁾	48/420 ²⁾	48/420 ²⁾	
6.5		Battery weight (± 5 %)	kg	750	750	746	
6.6		Power consumption to VDI cycle	kWh/h	⁷⁾	⁷⁾	⁷⁾	
Other	8.1	Type of drive control		Electronic/stepless	Electronic/stepless	Electronic/stepless	
	8.2	Working pressure for attachments	bar	200	200	200	
	8.3	Oil flow for attachments	l/min	6.5	6.5	6.5	
	8.4	Noise level at operator's ear	dB (A)	63 ⁸⁾	63 ⁸⁾	63	

1) For all heights, see table

2) Alternative batteries increase length to fork face and 90° stacking aisle widths

3) Capacity may be reduced for high lifts

4) Traction, lift, lower and reach speeds and weights may vary with alternative lift heights

5) Lifts 6355mm and above increase length to fork face and 90° stacking aisle widths by 27 mm on R 20 and R 20 N

6) Alternative widths over reach legs of 1400 mm or 1600 mm are available for R 20

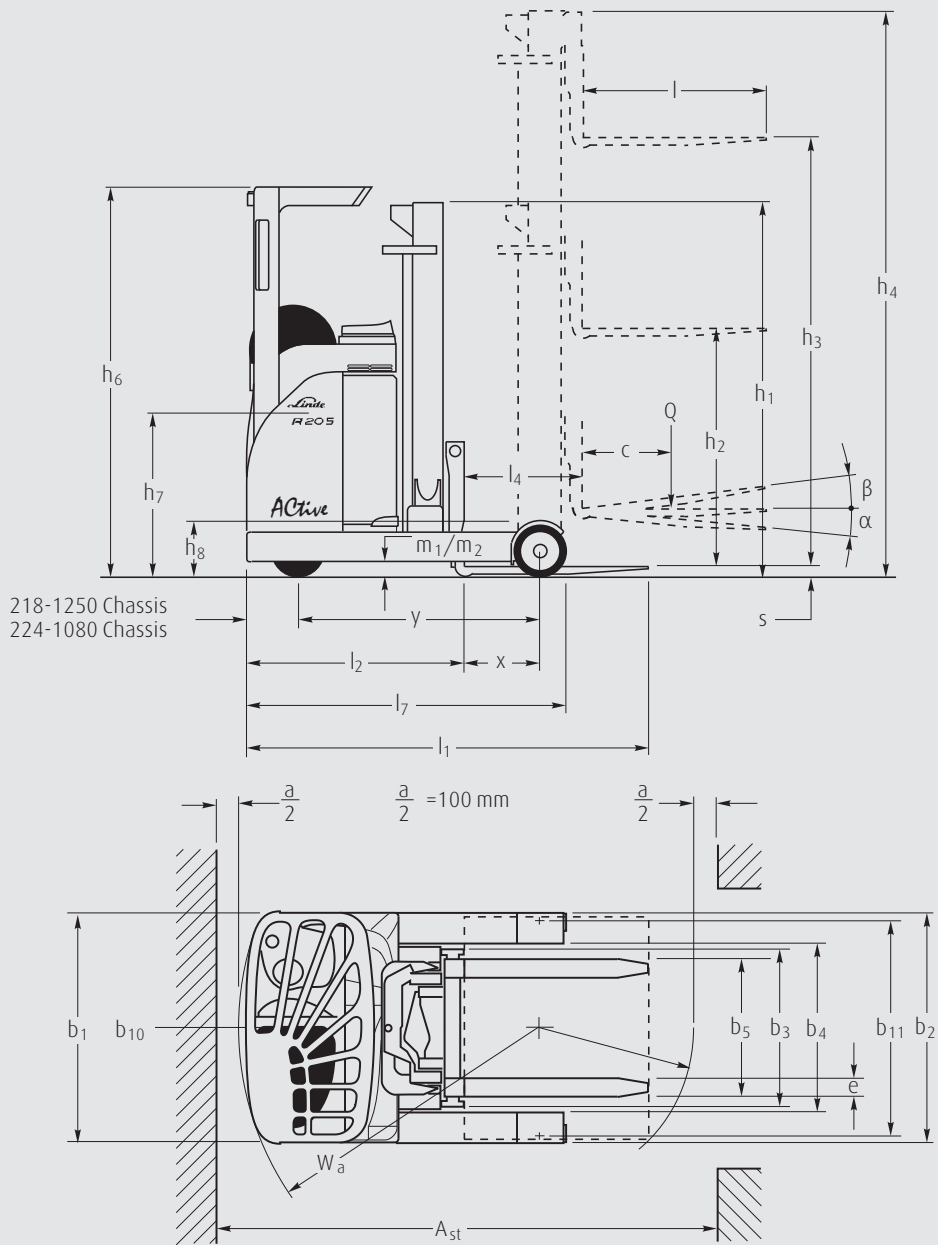
7) Refer to manufacturer for figures

8) 9)

	LINDE	LINDE	LINDE	LINDE	LINDE
	R16 ACtive	R16HD ACtive	R16N ACtive	R20 ACtive	R20N ACtive
	Battery	Battery	Battery	Battery	Battery
	seated	seated	seated	seated	seated
	1600 ³⁾	1600 ³⁾	1600 ³⁾	2000 ³⁾	2000 ³⁾
	600/500	600/500	600/500	600/500	600/500
	416	380	346	475	385
	1385	1385	1385	1520	1520
	2940 ⁴⁾	3070 ⁴⁾	2820 ⁴⁾	3260 ⁴⁾	3100 ⁴⁾
	1900/1040 ⁴⁾	1995/1075 ⁴⁾	1760/1060 ⁴⁾	2120/1140 ⁴⁾	1840/1260 ⁴⁾
	530/4010 ⁴⁾	420/4250 ⁴⁾	465/3955 ⁴⁾	630/4630 ⁴⁾	600/4500 ⁴⁾
	1690/2850 ⁴⁾	1740/2930 ⁴⁾	1460/2960 ⁴⁾	1960/3300 ⁴⁾	1555/3545 ⁴⁾
	P/P	P/P	P/P	P/P	P/P
	343 x 135	343 x 135	343 x 135	343 x 135	343 x 135
	285 x 100	285 x 100	285 x 100	350 x 100	350 x 100
	1x/2	1x/2	1x/2	1x/2	1x/2
	0	0	0	0	0
	1150	1150	980	1150	980
	2/4	2/4	2/4	2/4	2/4
	2110	2930	2110	2476	2476
	1261	2081	1261	1627	1627
	4655 ¹⁾	6355 ¹⁾	4655 ¹⁾	4655 ¹⁾	4655 ¹⁾
	5395	7139	5395	5395	5395
	2110	2110	2110	2110	2110
	940/1030	940/1030	940/1030	940/1030	940/1030
	310	310	310	373	373
	2339	2375	2415	2411	2511
	1189	1225	1265	1261 ⁵⁾	1361 ⁵⁾
	1234/1250	1234/1250	1054/1080	1234/1250 ⁴⁾	1054/1080
	45 x 100 x 1150	45 x 100 x 1150	45 x 100 x 1150	45 x 100 x 1150	45 x 100 x 1150
	2A	2A	2A	2A	2A
	830	830	830	830	830
	316/710	316/710	316/520	316/710	316/520
	922	922	752	922	752
	606	570	536	695	608
	75	75	75	75	75
	75	75	75	75	75
	2675	2705	2710	2770 ⁵⁾	2810 ⁵⁾
	2720	2752	2765	2805 ⁵⁾	2860 ⁵⁾
	1640	1640	1620	1775	1750
	1748	1748	1754	1911	1921
	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾	13.5/13.5 ⁴⁾⁹⁾
	0.40/0.66 ⁴⁾	0.35/0.51 ⁴⁾	0.40/0.66 ⁴⁾	0.32/0.51 ⁴⁾	0.33/0.51 ⁴⁾
	0.55/0.45 ⁴⁾	0.55/0.40 ⁴⁾	0.55/0.45 ⁴⁾	0.55/0.40 ⁴⁾	0.55/0.40 ⁴⁾
	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾	0.15/0.15 ⁴⁾
	4.7/8.2	3.9/7.1	4.3/8	3.9/7.1	3.9/7.2
	10/10	10/10	10/10	10/10	10/10
	5.5/4.8 ⁹⁾	5.8/5 ⁹⁾	5.5/4.8 ⁹⁾	5.8/5 ⁹⁾	5.8/5 ⁹⁾
	Hydraulic/electric	Hydraulic/electric	Hydraulic/electric	Hydraulic/electric	Hydraulic/electric
	6.5	6.5	6.5	6.5	6.5
	14	14	14	14	14
	43531C/254-2	43531C/254-2	43531B/254-2	43531C/254-2	43531B/254-2
	48/420 ²⁾	48/420 ²⁾	48/420 ²⁾	48/560 ²⁾	48/560 ²⁾
	750	750	746	939	937
	⁷⁾	⁷⁾	⁷⁾	⁷⁾	⁷⁾
	Electronic/stepless	Electronic/stepless	Electronic/stepless	Electronic/stepless	Electronic/stepless
	200	200	200	200	200
	6.5	6.5	6.5	6.5	6.5
	63 ⁸⁾	63 ⁸⁾	63	64 ⁸⁾	64

⁸⁾ Figure shown is without cab; 66 dB (A) when cab fitted

⁹⁾ Reduced speed and acceleration on request



Triplex clearview fixed masts with tilting carriage (2° forward, 4° back) and integrated sideshift (80 mm each side)

R 14 and R 14 N

Lift	h3	4655	5155	5755	6255	6655	6955	7255	7555	7955	8255	8555	-	-	-
Free lift	h2	1261	1627	1627	2061	2061	2061	2527	2527	2527	2527	3061	-	-	-
Height of mast, lowered	h1	2110	2476	2476	2910	2910	2910	3376	3376	3376	3376	3910	-	-	-
Height of mast, extended	h4	5395	5895	6495	6995	7395	7695	7995	8295	8695	8995	9295	-	-	-

R 16 and R 16 N

Lift	h3	4655	5155	5755	6255	6655	6955	7255	7555	7955	8255	8555	8955	9155	9455
Free lift	h2	1261	1627	1627	2061	2061	2061	2527	2527	2527	2527	3061	3061	3061	3061
Height of mast, lowered	h1	2110	2476	2476	2910	2910	2910	3376	3376	3376	3376	3910	3910	3910	3910
Height of mast, extended	h4	5395	5895	6495	6995	7395	7695	7995	8295	8695	8995	9295	9695	9895	10195

The following lifts are available within the parameters indicated for the models shown:

R 14 HD - 6355 to 8555 mm; R 16 HD - 6355 to 11455 mm; R 20 - 4355 to 11455 mm; R 20 N - 4355 mm to 9455 mm

Lift	h3	4355	4655	5155	5755	6355	6655	6955	7255	7555	7955	8255	8555	8955	9155
Free lift	h2	1261	1627	1627	2061	2081	2081	2581	2581	2581	2581	2581	3081	3081	3081
Height of mast, lowered	h1	2110	2476	2476	2910	2930	2930	3430	3430	3430	3430	3430	3930	3930	3930
Height of mast, extended	h4	5095	5395	5895	6495	7139	7439	7739	8039	8339	8739	9039	9339	9739	9939
Lift	h3	9455	9655	9955	10155	10455	10655	10955	11155	11455	-	-	-	-	-
Free lift	h2	3081	3081	3581	3581	3581	3581	4081	4081	4081	-	-	-	-	-
Height of mast, lowered	h1	3930	3930	4430	4430	4430	4430	4930	4930	4930	-	-	-	-	-
Height of mast, extended	h4	10239	10439	10739	10939	11239	11439	11739	11939	12239	-	-	-	-	-

Alternative lift heights available on request. Lift height = $h_3 + s + 10 \text{ mm}$

Standard and optional equipment

Standard equipment

General

Three-wheel configuration
Overall width (reach legs) 1250 mm
Linde Load Control for lift/lower, reach, tilt and sideshift
Linde twin accelerator pedals
Full suspension fabric seat with electric lumbar support
Comprehensive digital instrument display
6.5 kW maintenance-free AC drive motor
14 kW maintenance-free AC lift motor
Polyurethane drive and load wheel tyres
Self-adjusting service brakes
Linde proportional 180° electric steering
Clearview triplex mast lift 4655 mm (R 14 to R 20),
6355 mm (R 14 HD & R 16 HD)
Tilting carriage and integral sideshift
Fork length 1150 mm
Standard colour scheme - vermilion and charcoal grey

Batteries and chargers

48 V, 360 Ah to 700 Ah
Wide selection of chargers available to suit application

Electronics

Linde Digital Control system (LDC) incorporating
CAN bus technology

Optional equipment

Narrow chassis 1080 mm (R 14 N, R 16 N & R 20 N)
Wide chassis 1400 mm/1600 mm (R 20)
Triplex mast lifts to 8555 mm (R 14, R 14 HD & R 14 N),
9455 mm (R 16, R 16 N & R 20 N), 11455 mm (R 16 HD & R 20)
Single accelerator pedal, automotive layout with left foot
interlock
Alternative fork lengths
Fork extensions
Load backrest
Single axis joysticks for all hydraulic functions
Audible traction alarm
360° steering (single accelerator pedal only)
Seat heater
PVC seat material
Seat back extension
Variable electronic drive unit brake
Cold store protection to minus 30°C

Safety

Monitoring system stops truck in the event of
traction, steering or lift failure
Three independent braking systems
All-wheel braking
Emergency isolator
Seat-actuated traction interlock
Electric horn
Automatic slowdown at maximum lift
Automatic slowdown at end of reach travel
Protective polycarbonate screen between control console
and mast
Battery locking interlock
Electrical and hydraulic overload protection
Overhead guard
Automatic creep speed above 8500 mm lift

Mast

Torsion resistant fixed triplex clearview mast
Tilting fork carriage
Integral sideshift
High residual capacities

Cold store cab (not with narrow chassis)
Ambient cab (not with narrow chassis)
Height pre-selector
Height indicator
PIN access
LFM
CCTV
Working lamps/beacons
Additional hydraulic circuit
Mesh or polycarbonate protection on overhead guard
Profiled overhead guard for drive-in racking
Side guidance wheels
Load wheel protection
Battery on rollers
Battery roller stand
Alternative colour schemes

Other options available on request

Features

Superb working environment

- Linde Load Control: Precise, effortless fingertip control of all mast movements
- Ergonomic, full suspension comfort-class seat fully adjustable to the operator's personal preferences
- Adjustable steering console



Stability

- Chassis designed and built for maximum strength and durability
- Heavy-duty construction materials and components provide low centre of gravity for stability and high residual capacities

Manoeuvrability

- A short wheelbase, compact chassis dimensions and smooth electric power steering ensure easy and efficient manoeuvring

Linde clearview mast

- Torsion-resistant fixed triplex clearview mast
- Hydraulic hoses are reeved through the mast to enhance visibility

Linde twin accelerator pedals

- Effortless forward/reverse selection places minimal demands on operator
- Operator is able to maintain high efficiency and productivity levels



Precision

- Assured manoeuvring with Linde twin accelerator pedals
- Precision load handling with Linde Load Control
- Responsive progressive and adjustable electric steering with essential 'road feel'
- Digital instrument display for instant readout of truck status
- Excellent visibility of load and surrounding environment

Batteries

- Capacities to suit every type of application: 360 Ah to 700 Ah
- Quick and easy battery change

Servicing

- Maintenance-free AC traction and lift motors
- Configurable Linde Digital Control system
- Incorporates diagnostic technology
- Easy service access
- Up to 1000 operating hours between services

The manufacturer reserves the right to alter specifications without notice. Illustrations and technical details non-binding for actual construction. All measurements subject to customary tolerances.

