



Electric Reach Trucks Capacity 1400 – 2000 kg R14S – R20S *Active* SERIES 115-02



Safety

Performance and safety go together. Linde reach trucks offer a high level of both. Three independently working braking systems and electric power steering provide a high level of working precision.

Performance

The Linde Active drive concept employing advanced Linde Digital Control technology translates the abundant power of the trucks AC motors into maximum productivity. A comprehensive selection of batteries enables each truck to be matched exactly to the needs of its specific application.

Comfort

A harmony of operator and truck has been achieved through the Linde ergonomic design concept. Spacious cab, comfort-class seat with lumbar support, neat layout of controls and instruments. The operator compartment is tailored for maximum performance.

Reliability

This Linde reach truck is an easy match for heavy sustained duty. Its compact robot-welded chassis is designed for maximum strength and durability. Low center of gravity, high stability and high residual capacity are achieved by making the base of the frame from cast steel.

Productivity

Efficiency at work, efficiency in servicing. Maintenance intervals as long as 1,000 hours and a computer-controlled diagnostic system cut costs and provide for optimum uptime. All Linde Digital Control parameters can be configured to precisely fit the requirements of the user's application.

Linde Material Handling

Linde

Technical data

Characteristics	1.1	Manufacturer		LINDE	LINDE	
	1.2	Model designation		R 14 Active¹⁾	R 14HD Active¹⁾	
	1.3	Power unit: battery, diesel, petrol, LP gas, mains power		Battery	Battery	
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		seated	seated	
	1.5	Load capacity	Q (kg)	1400 ³⁾	1400 ³⁾	
	1.6	Load centre	c (mm)	600/500	600/500	
	1.8	Axle centre to fork face	x (mm)	311	270	
	1.9	Wheelbase	y (mm)	1275	1275	
	Weights	2.1	Service weight	kg	2890 ⁴⁾	3020 ⁴⁾
2.3		Axle load without load, front (drive)/rear (load)	kg	1800/1090 ⁴⁾	1830/1190 ⁴⁾	
2.4		Axle load, fork outreached with load, front (drive)/rear (load)	kg	520/3770 ⁴⁾	500/3920 ⁴⁾	
2.5		Axle load, fork retracted with load, front (drive)/rear (load)	kg	1485/2805 ⁴⁾	1480/2940 ⁴⁾	
Wheels and tyres		3.1	Tyres, front (drive)/rear (load) C = cushion rubber, P = polyurethane		P/P	P/P
	3.2	Tyre size, front (drive) wheel	mm	343 x 135	343 x 135	
	3.3	Tyre size, rear (load) wheel	mm	285 x 100	285 x 100	
	3.5	Wheels, number front (drive)/rear (load)		1x/2	1x/2	
	3.6	Track width, front (drive)	b10 (mm)	0	0	
	3.7	Track width, rear (load)	b11 (mm)	1150	1150	
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b l	2/4	2/4
4.2		Height of mast, lowered	h1 (mm)	2110	2930	
4.3		Free lift	h2 (mm)	1261	2081	
4.4		Lift	h3 (mm)	4655 ¹⁾	6355 ¹⁾	
4.5		Height of mast, extended	h4 (mm)	5395	7139	
4.7		Height of overhead guard (cabin)	h6 (mm)	2110	2110	
4.8		Height of seat/stand-on platform	h7 (mm)	940/1030	940/1030	
4.10		Height of reach legs	h8 (mm)	310	310	
4.19		Overall length	l1 (mm)	2384	2425	
4.20		Length to fork face	l2 (mm)	1184	1225	
4.21		Overall width	b1/b2 (mm)	1234/1250	1234/1250	
4.22		Fork dimensions	s/e/l (mm)	40 x 80 x 1200	45 x 100 x 1200	
4.23		Fork carriage to DIN 15173, class/form A, B		2A	2A	
4.24		Width of fork carriage	b3 (mm)	830	830	
4.25		Fork spread, minimum/maximum	b5 (mm)	296/690	316/710	
4.26		Width between reach legs	b4 (mm)	922	922	
4.28		Reach travel	l4 (mm)	496	460	
4.31		Ground clearance, mast	m1 (mm)	75	75	
4.32		Ground clearance, centre of wheelbase	m2 (mm)	75	75	
4.33		Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	2655 (2430) ⁹⁾	2685 (2470) ⁹⁾	
4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2715 (2630) ⁹⁾	2750 (2670) ⁹⁾		
4.35	Turning radius	Wa (mm)	1540	1540		
4.37	Length of chassis	l7 (mm)	1638	1638		
Performance	5.1	Travel speed, with/without load	km/h	13.5/13.5 ¹⁰⁾	13.5/13.5 ¹⁰⁾	
	5.2	Lifting speed, with/without load	m/s	0.34/0.6 ⁴⁾	0.32/0.49 ⁴⁾	
	5.3	Lowering speed, with/without load	m/s	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⁾	
	5.7	Climbing ability, with/without load, 30 minutes rating	%	4.5/8.2	4.5/8.2	
	5.8	Maximum climbing ability, with/without load, 5 minutes rating	%	10/10	10/10	
	5.9	Acceleration time, with/without load	s	5.5/4.8 ¹⁰⁾	5.8/5 ¹⁰⁾	
	5.10	Service brake		hydraulic/electronic	hydraulic/electronic	
	Drive	6.1	Drive motor, 60 minutes rating	kW	6	6
		6.2	Lift motor, 15 % rating	kW	12	12
6.3		Battery according to IEC		254-2	254-2	
6.4		Battery voltage/rated capacity (5h)	V/Ah	48/420 ²⁾	48/420 ²⁾	
6.5		Battery weight (± 5 %)	kg	750	750	
6.6		Power consumption according to VDI cycle	kWh/h	⁸⁾	⁸⁾	
Other	8.1	Type of drive control		electronic/stepless	electronic/stepless	
	8.2	Working pressure for attachments	bar	200	200	
	8.3	Oil flow for attachments	l/min	6.5	6.5	
	8.4	Noise level at operator's ear	dB (A)	63 ⁸⁾	63 ⁸⁾	

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) Lift heights 6400 mm 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

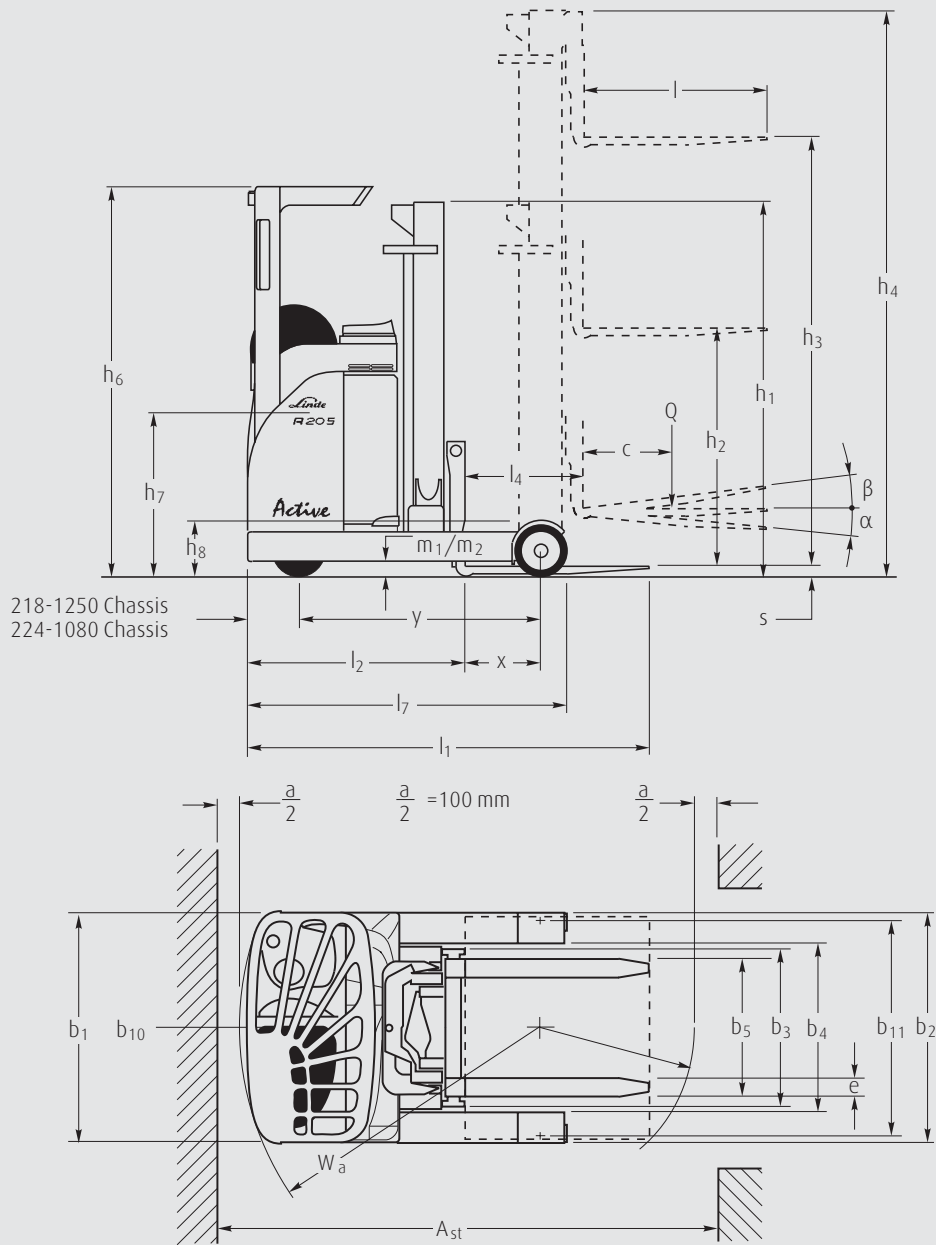
7) Refer to manufacturer for figures

LINDE	LINDE	LINDE	LINDE	LINDE
R16 Active¹⁾	R16HD Active¹⁾	R16N Active¹⁾	R20 Active¹⁾	R20N Active¹⁾
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
2389	2425	2465	2461	2561
1189	1225	1265	1261 ⁶⁾	1361 ⁶⁾
1234/1250	1234/1250	1054/1080	1234/1250 ⁷⁾	1054/1080
45 x 100 x 1200	45 x 100 x 1200	45 x 100 x 1200	45 x 100 x 1200	45 x 100 x 1200
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 (2425) ⁹⁾	2705 (2460) ⁹⁾	2710 (2475) ⁹⁾	2770 (2500) ⁵⁾⁹⁾	2810 (2565) ⁵⁾⁹⁾
2720 (2625) ⁹⁾	2752 (2660) ⁹⁾	2765 (2675) ⁹⁾	2805 (2700) ⁵⁾⁹⁾	2860 (2765) ⁵⁾⁹⁾
1640	1640	1620	1775	1750
1748	1748	1754	1911	1921
13.5/13.5 ⁵⁾¹⁰⁾	13.5/13.5 ⁵⁾¹⁰⁾	13.5/13.5 ⁵⁾¹⁰⁾	13.5/13.5 ⁵⁾¹⁰⁾	13.5/13.5 ⁵⁾¹⁰⁾
0.34/0.6 ⁴⁾	0.3/0.48 ⁴⁾	0.34/0.6 ⁴⁾	0.3/0.48 ⁴⁾	0.3/0.48 ⁴⁾
0.55/0.45 ⁴⁾	0.55/0.4 ⁴⁾	0.55/0.45 ⁴⁾	0.55/0.4 ⁴⁾	0.55/0.4 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 ¹⁰⁾	5.8/5 ¹⁰⁾	5.5/4.8 ¹⁰⁾	5.8/5 ¹⁰⁾	5.8/5 ¹⁰⁾
hydraulic/electronic	hydraulic/electronic	hydraulic/electronic	hydraulic/electronic	hydraulic/electronic
6	6	6	6	6
12	12	12	12	12
254-2	254-2	254-2	254-2	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 ⁸⁾	64 ⁸⁾	64 ⁸⁾

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

9) Figures shown in brackets are for intrusive stacking

10) Reduced speed and acceleration on request



Mast unit variations

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

R 14															
Lift	h3	4655	5155	5755	6255	6655	6955	7255	7555	7955	8255	8555	-	-	-
Lift high	h3+s	4695	5195	5795	6295	6695	6995	7295	7595	7995	8295	8595	-	-	-
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 und R 16 N															
Lift	h3	4655	5155	5755	6255	6655	6955	7255	7555	7955	8255	8555	8955	9155	9455
Lift high	h3+s	4700	5200	5800	6300	6700	7000	7300	7600	8000	8300	8600	9000	9200	9500
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 lift heights (h3 + s) are available within the parameters indicated for the models shown:

R 14 HD – 6400 to 8600 mm; R 16 HD – 6400 to 11500 mm; R 20 – 4400 bis 11500 mm; R 20 N – 4400 mm to 9500 mm

Lift	h3	4355	4655	5155	5755	6355	6655	6955	7255	7555	7955	8255	8555	8955	9155
Lift high ⁵⁾	h3+s	4400	4700	5200	5800	6400	6700	7000	7300	7600	8000	8300	8600	9000	9200
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	-	-	-	-	-
Lift high ⁵⁾	h3+s	9500	9700	10000	10200	10500	10700	11000	11200	11500	-	-	-	-	-
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	-	-	-	-	-

Standard and optional equipment

Standard equipment

Truck

Three-wheel version
Overall width (load legs) 1250 mm
Two central Linde Load Control levers:
Left lever controls lift/lower and forward/back reach motions
Right lever controls tilt and sideshift
Linde twin drive pedals
Optimized adjustable height seat with electric lumbar support
Innovative cockpit design:
Indicators for steering position, operating hours, battery charge state, safety cutout, motor temperature, brake fluid level, servicing due, parking brake, battery lock and creep travel
Polyurethane drive and load wheel tyres
Self-adjusting load wheel brakes
Linde Digital Control (LDC) for traction and lift
Patented Linde Rheological Steering (LRS)
Fly-by-wire steering control

Batteries and chargers

Powerful 48 V batteries, choice of 360 Ah to 700 Ah capacity depending on truck model
Wide selection of battery chargers or quick chargers available for all duty set-ups

Electronics

Linde Digital Control system (LDC)
CAN bus system

Options

Overall width 1080 mm (R 16 N/R 20 N)
Overall width 1400 or 1600 mm (R 20)
Single drive pedal and armrest-integrated direction selector with left-foot lock
Triplex clear-view masts, lift to 8595 mm for R 14, 8600 mm for R 16 HD, 9500 mm for R 16/R 16 N/R 20 N, 11500 mm for R 16 HD/R 20
Heavy-duty mast for increased residual capacity and mast rigidity
Lift height preselection
Lift height indicator
Alternative fork lengths
Fork extensions
Load backrest
Single control levers for lift, reach, tilt and sideshift functions
360° steering (in conjunction with single drive pedal)

Safety

Electric Monitoring Systems bring the truck to a safe stop in the event of traction, steering or lift failure
Three independent braking systems
All wheel braking
Intrinsically safe electrical circuit
Seat-actuated traction power interlock
Electric horn
Automatic lift and reach speed reduction at maximum lift height and on forward/back reach
Polycarbonate screen between operator and mast
Electrical and hydraulic overload protection
Overhead guard
Automatic travel speed reduction at lift heights over 8500 mm

Mast

Torsion resistant fixed triplex clear-view mast
Tilting fork carriage
Integral sideshift
Unique design using only two lift jacks
High residual capacities at all lift heights

Traction and lift motors

Zero-maintenance 6 kW traction motor
Zero-maintenance 12 kW lift motor

Seat heater
PVC seat
Seat back extension
Work lamps and/or beacon lamp
Auxiliary hydraulic circuit
Cold store version to -30°C
Cold store cab
Weatherproof cab
CCTV fork monitoring
Overhead guard designed for drive-in racking
Battery roll out
Access control via keypad/PIN code
Custom paintwork

Other options available on request.

Features

Comfortable operator compartment

- 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 and control console
- Linde Info Display for ready check on truck status
- Excellent visibility of load and surroundings



Stability

- Chassis designed and built for maximum strength
- Bottom part of frame made of cast steel to improve center of gravity, stability and residual capacity

Maneuverability

- Short wheelbase and compact chassis dimensions permit easy maneuvering

Linde clear-view mast

- Torsion resistant fixed triplex clear-view mast
- Tilting fork carriage
- Integral sideshift
- Hydraulic hose runs within mast sections

Linde twin drive pedals

- Fast change of forward-reverse direction without shifting feet on pedals
- Short pedal stroke
- Reduced operator fatigue and increased productivity



Precision

- Accurate control of driving with Linde twin drive pedals
- Precision load handling with Linde Load Control levers
- Responsive rheological steering featuring individually adjustable steering resistance
- Regenerative electric braking

Batteries

- Optimum size of battery for every application: 360 Ah to 700 Ah depending on truck model
- Quick and easy battery change

Servicing

- Maintenance-free AC traction and lift motors
- Configurable Linde Digital Control system
- All points requiring servicing conveniently grouped
- Modern CAN bus architecture

Linde AG

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Linde Material Handling

