

Features

Three independent braking systems

- Footbrake hydraulically actuated on drive and load wheels.
- Electric parking brake operating on the drive motor armature shaft. Parking brake will automatically apply when the operator leaves the seat — deadman brake.
- Electric regenerative braking on accelerator pedal release. Electrical energy is returned to the battery and wear on the service brakes is greatly reduced.

Electric power steering

- Electric power steering with variable torque feedback provides excellent maneuverability with very low, fatigue free steering effort.

Linde clearview mast design

- The clearview triple mast with tilting carriage and integrated sideshift yields exceptional visibility at all lift heights.



Safety

- Three independent braking systems
- All wheel braking
- Deadman brake
- Emergency power cut-off (also applies parking brake)
- Keyswitch
- Electric horn
- Electronic and hydraulic overload protection
- Traction isolated by seatswitch
- Parking brake interlock actuates power reduction to allow gradient start without roll back
- Automatic slow down at maximum/minimum lift and reach
- Polycarbon screen between operator and mast
- Overhead guard
- Dual channel fail-safe circuitry
- Automatic speed reduction above 335 in. lift (8,500 mm).

ANSI: Standard truck meets all applicable mandatory requirements of ANSI/ISO 856.1 standards for powered industrial trucks. NOTE: Performance data may vary due to motor and system efficiency tolerances. The performance depicted represents nominal values obtained under typical operating conditions. Metric dimensions are in millimeters unless otherwise specified. All metric dimensions are not direct equivalents due to rounding data. The descriptions and specifications included on this data sheet were in effect at the time of printing. Linde Material Handling North America Corporation reserves the right to make improvements and changes in specification or design without notice and without incurring obligation. Please check with your authorized Linde dealer for information on possible updates or revisions.



Linde operator's compartment

- The advanced design full suspension comfort seat is completely adjustable to operator's size and weight.



Linde Load Control (LLC)

- The unique Linde Load Control (LLC) system enables accurate, fatigue free, fingertip control of all load movements



Linde energy management

- Energy saving Linde Digital Control (LDC) provides for smooth, efficient control of traction and load handling together with parameter adjustments and diagnostic capability. Efficient conversion of energy to motion.

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Linde Material Handling

Linde



Electric Mobile Mast Reach Trucks

Capacity 3,000 to 4,500 lbs.

R14, R16, and R20

Series 115-02 AC

Linde Material Handling

Linde

Design

The three wheel electric mobile mast reach truck models R14, R16 and R20, have been developed to meet the most arduous application requirements. Designed to achieve maximum productivity, the truck's unique features result from a thorough analysis of today's warehouse logistics. The overall design concept ensures premium operator comfort and contributes significantly to high work throughput with minimum fatigue.

The chassis has been designed to yield exceptional strength and rigidity. The rear section is constructed of a steel casting which helps to lower the center of gravity for greater stability and higher residual capacities at high lift. The operator's compartment, motors, and electronics are protected within this rugged structure; all with easy accessibility for maintenance.

Comfort

The wide operator compartment provides excellent protection and superior ergonomics. Every aspect of form and function has been evaluated to optimize the combined efficiency of man and machine for maximum productivity. The advanced ergonomic layout of all operating controls ensures optimum comfort and efficiency. The Linde twin directional control pedals, combined with electronic traction control, enable smooth load handling and maneuverability even in confined areas. The specially designed full suspension seat supports every operational body movement, with full lateral lumbar and weight adjustments to suit every operator. The Linde Load Control (LLC) system features dual axis joystick controls for minimum operator effort and efficient, fatigue-free load handling. The comprehensive integrated display includes steering angle indicator, hour meter, battery discharge indicator with lift slowdown interlock, motor temperature, brush wear and brake fluid level indicators for cost effective planning of maintenance intervals and battery charging schedules.

Steering is controlled electronically through "steer-by-wire" technology providing extremely low steering efforts. Parameter adjustments allow the steering to be tailored to suit specific applications.

Performance

A powerful 8.0hp AC drive motor is positioned in a fixed mounting above a turntable gear box assembly. Power is transmitted to the drive wheel via helical and bevel gear reduction. Electronically governed power reduction

when the handbrake is applied enables safe starting on grades without overloading the transmission or parking brake.

Reliability

Linde R-Series trucks are fitted with the advanced, high frequency, Linde Digital Control (LDC) system for traction and load handling. The system reacts progressively to operator demand and provides extremely smooth movements. It also incorporates wear-free dynamic braking upon the release of either directional control pedal. Integrated diagnostics via a CAN bus connection ensures rapid servicing and maximum uptime.

Productivity

The low-deflection clearview triple mast with tilting carriage and integral sideshifter provides a clear view at all lift heights for faster and safer load handling. The patented design uses only two hydraulic cylinders mounted behind the mast uprights. The integral outer mast and reach frame allows for superior forward visibility of the forks and load at low lift heights. The tilting carriage with an integral sideshifter fitted as standard equipment minimizes forward load movement providing high residual capacities. Internal reeving for up to four hydraulic functions eliminates the need for hose reels. Permanently sealed canted mast rollers provide precise alignment of the moving mast sections with minimal friction to ensure smooth, rapid lift/lower movements. A powerful digital controlled pump motor delivers fast lift speeds, and automatic slowdown at both ends of the reach stroke ensures smooth, safe and accurate load placement. Lift speed automatically slows down as maximum lift is reached.

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Standard and optional equipment

Standard Equipment

AC Drive & Hydraulics	Motor temperature, brush wear and brake fluid level indicators
All items shown under safety	Two lever Linde load control - 1 lift and reach - 2 tilt and sideshift
Steering indicator	Suspension type driver seat with fore-aft, backrest angle and operator weight adjustments
Electronic controls with integrated microprocessor for infinitely variable, highly economical control of travel speeds and working hydraulics (LDC system)	Linde twin directional control pedals
Combination battery discharge indicator; when battery discharge has reached 80%, the electric power supplied to the hydraulic motor is automatically reduced	Polyurethane drive and load wheels
	Load backrest extension

Optional Equipment

R20W overall width 63 in.(1600mm)	PVC seat (with/without heater)
Seat interlock alarm	Seat with adjustable lumbar support
CCTV	Seat with backrest extension
Height pre-selector (LPS)	Cold storage protection to -300F
Height indicator (LHI)	Cold storage/comfort cabin
Non-standard fork lengths	Drive-in-rack overhead guard
Rotating beacon	Side guidance for drive-in-racking
Back-up alarm	Battery compartment rollers
Working lights	Alternative colors
Flashing lights	
Separate levers for lift, tilt, sideshift and reach functions	Other options available on request
Single accelerator pedal and direction switch with interlock actuated by left foot	

Mast Table and Optional Battery Sizes for Models Listed

Triple clearview fixed masts with tilting carriage (2° forward, 4° back) and integrated sideshift, 3.2 in. (80 mm) each side.

Battery Size Requirement/Mast Table								
	R20 and R20W	R20N	lift height h3 + s	collapsed height h1	free lift h2	maximum ext. height h4		
			in / mm	in / mm	in / mm	in / mm		
R16HD			172 / 4400	83 / 2110	49 / 1261	201 / 5095		
			185 / 4700	98 / 2476	64 / 1627	212 / 5395		
B and C	B and C	BN and CN	204 / 5200	98 / 2476	64 / 1627	232 / 5895		
			228 / 5800	115 / 2910	81 / 2061	256 / 6495		
			251 / 6400	116 / 2930	82 / 2081	281 / 7139		
			263 / 6700	116 / 2930	82 / 2081	293 / 7439		
			275 / 7000	136 / 3430	101 / 2581	305 / 7739		
			287 / 7300	136 / 3430	101 / 2581	317 / 8039		
			298 / 7600	136 / 3430	101 / 2581	328 / 8339		
			314 / 8000	136 / 3430	101 / 2581	344 / 8739		
			326 / 8300	136 / 3430	101 / 2581	356 / 9039		
			C	C	CN	338 / 8600	155 / 3930	121 / 3081
354 / 9000	155 / 3930	121 / 3081				384 / 9739		
361 / 9200	155 / 3930	121 / 3081				391 / 9939		
373 / 9500	155 / 3930	121 / 3081				403 / 10239		
					381 / 9700	155 / 3930	121 / 3081	411 / 10439
					393 / 10000	175 / 4430	140 / 3581	423 / 10739
					401 / 10200	175 / 4430	140 / 3581	431 / 10939
					413 / 10500	175 / 4430	140 / 3581	443 / 11239
					420 / 10700	175 / 4430	140 / 3581	450 / 11439
					432 / 11000	195 / 4930	160 / 4081	462 / 11739
			440 / 11200	195 / 4930	160 / 4081	470 / 11939		
			452 / 11500	195 / 4930	160 / 4081	482 / 12239		

Battery Sizes*

*Required battery determined by lift height.

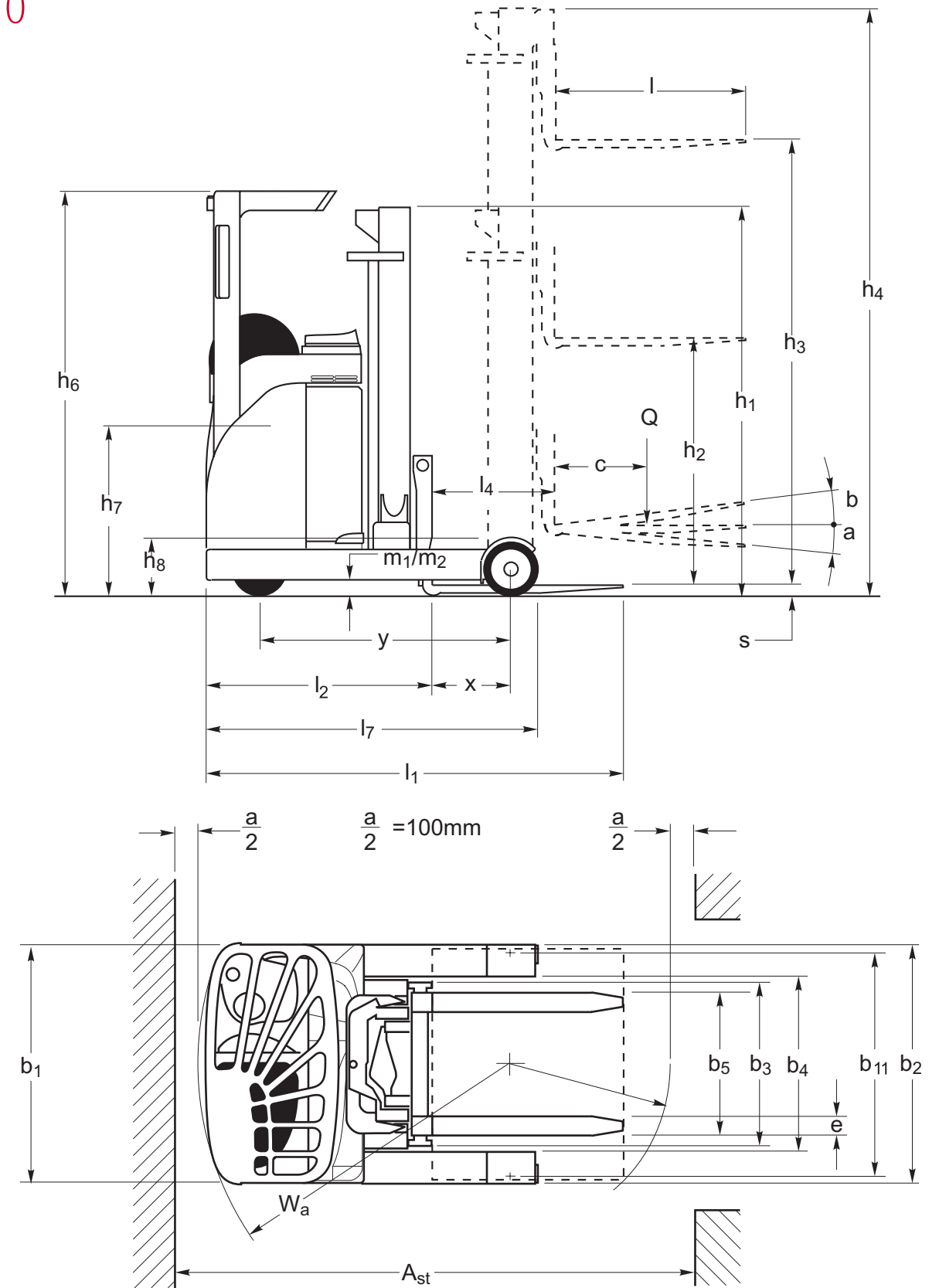
Battery Sizes	Battery Case Dimensions (in)	Minimum Battery Weight (lb)
Size A	11.1 x 48.2 x 30.8	1575
Size B	14 x 48.2 x 30.8	1970
Size C	16.8 x 48.2 x 30.8	2345
Size AN	13.9 x 40.75 x 30.8	1565
Size BN	17.4 x 40.75 x 30.8	1965
Size CN	21 x 40.75 x 30.8	2345

Mast Table and Optional Battery Sizes for Models Listed

Triple clearview fixed masts with tilting carriage (2° forward, 4° back) and integrated sideshift, 3.2 in. (80 mm) each side.

Battery Size Requirement/Mast Table							
			lift height h3 + s	collapsed height h1	free lift h2	maximum ext. height h4	
			in / mm	in / mm	in / mm	in / mm	
R16N	R14	R16	185 / 4695	98 / 2110	49 / 1261	212 / 5395	
AN and BN	A and B	A and B	204 / 5200	98 / 2476	64 / 1627	232 / 5895	
		B and C	228 / 5800	98 / 2476	64 / 1627	256 / 6495	
			248 / 6295	115 / 2910	81 / 2061	275 / 6995	
			264 / 6700	115 / 2910	81 / 2061	291 / 7395	
BN	B	B and C	275 / 7000	115 / 2910	81 / 2061	303 / 7695	
			287 / 7295	133 / 3376	99 / 2527	315 / 7995	
			299 / 7595	133 / 3376	99 / 2527	327 / 8295	
			315 / 7995	133 / 3376	99 / 2527	343 / 8695	
			326 / 8295	133 / 3376	99 / 2527	354 / 8995	
 	 	C		338 / 8595	154 / 3910	120 / 3061	366 / 9295
				354 / 9000	154 / 3910	120 / 3061	382 / 9695
				360 / 9200	154 / 3910	120 / 3061	390 / 9895
				373 / 9500	154 / 3910	120 / 3061	401 / 10195

R14
R16
R20



Technical data

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Characteristics	Linde		Linde		
	R14R	16R	R14R	16R	
1.1 Manufacturer	Linde		Linde		
1.2 Model designation	R14R		16R		
1.3 Power unit: Battery, Diesel, Gasoline, LP Gas	Battery		Battery		
1.4 Operation	Rider/Sit down		Rider/Sit down		
1.5 Load capacity ¹	3,000 (1,400)	3,500 (1,600)	3,000 (1,400)	3,500 (1,600)	
1.6 Load center	24 (600)	24 (600)	24 (600)	24 (600)	
1.8 Axle center to fork face	12.1 (311)	16.2 (416)	12.1 (311)	16.2 (416)	
1.9 Wheelbase	50.2 (1275)	54.5 (1,385)	50.2 (1275)	54.5 (1,385)	
Weight	2.1 Service weight (with minimum battery)	6,292 (2,854)	6,403 (2,904)	6,292 (2,854)	6,403 (2,904)
	2.3 Axle load without load, front/rear	3,919/2,373 (1,778/1,077)	4,138/2,265 (1,877/1,027)	3,919/2,373 (1,778/1,077)	4,138/2,265 (1,877/1,027)
	2.4 Axle load, forks extended with load, front/rear	1,064/8,229 (516/3,739)	1,164/8,739 (526/3,979)	1,064/8,229 (516/3,739)	1,164/8,739 (526/3,979)
	2.5 Axle load, forks retracted with load, front/rear	3,174/6,119 (1,473/2,782)	3,701/6,202 (1,677/2,828)	3,174/6,119 (1,473/2,782)	3,701/6,202 (1,677/2,828)
Wheels/Tires	3.1 Tires	Polyurethane		Polyurethane	
	3.2 Tire size, front	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)
	3.3 Tire size, rear	11.2 x 3.9 (285 x 100)	11.2 x 3.9 (285 x 100)	11.2 x 3.9 (285 x 100)	11.2 x 3.9 (285 x 100)
	3.5 Wheels, number front/rear (x = driven)	1x/2	1x/2	1x/2	1x/2
3.7 Track width, rear	45.3 (1,150)	45.3 (1,150)	45.3 (1,150)	45.3 (1,150)	
Dimensions	4.1 Mast/fork carriage tilt, forward/back	2/4		2/4	
	4.2 Height of mast lowered	83 (2,110)	83 (2,110)	83 (2,110)	83 (2,110)
	4.3 Free lift	49 (1,261)	49 (1,261)	49 (1,261)	49 (1,261)
	4.4 Lift ⁷	185 (4,695)	185 (4,695)	185 (4,695)	185 (4,695)
	4.5 Height of mast extended	212 (5,395)	212 (5,395)	212 (5,395)	212 (5,395)
	4.7 Height of overhead guard (cabin)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)
	4.8 Height of seat, minimum/maximum	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)
	4.10 Height of reach legs	12.2 (310)	12.2 (310)	12.2 (310)	12.2 (310)
	4.19 Overall length	93.86 (2,384)	94.06 (2,389)	93.86 (2,384)	94.06 (2,389)
	4.20 Length to fork face	46.61 (1,184)	46.81 (1,189)	46.61 (1,184)	46.81 (1,189)
	4.21 Overall width	48.6/49.2 (1,234/1,250)	48.6/49.2 (1,234/1,250)	48.6/49.2 (1,234/1,250)	48.6/49.2 (1,234/1,250)
	4.22 Fork dimensions	1.5x4x48 (40x100x1,200)	1.75x4x48 (45x100x1,200)	1.5x4x48 (40x100x1,200)	1.75x4x48 (45x100x1,200)
	4.23 Fork carriage class	2A		2A	
	4.24 Width of fork carriage	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)
	4.25 Fork spread, minimum/maximum	11.7/27.2 (296/690)	12.4/28.0 (316/710)	11.7/27.2 (296/690)	12.4/28.0 (316/710)
	4.26 Width between reach legs	36.3 (922)	36.3 (922)	36.3 (922)	36.3 (922)
	4.28 Reach travel	19.5 (496)	23.9 (606)	19.5 (496)	23.9 (606)
4.31 Ground clearance, mast	3 (75)	3 (75)	3 (75)	3 (75)	
4.32 Ground clearance, center of wheelbase	3 (75)	3 (75)	3 (75)	3 (75)	
4.34 Aisle width w/pallet 40" x 48" (1000 x 1200) along forks	103.5 (2,630)	103.3 (2,625)	103.5 (2,630)	103.3 (2,625)	
4.35 Turning radius	60.6 (1,540)	64.6 (1,640)	60.6 (1,540)	64.6 (1,640)	
4.37 Length of chassis	64.5 (1,638)	68.8 (1,748)	64.5 (1,638)	68.8 (1,748)	
Performance	5.1 Travel speed, w/wo load ⁸ , (AC & DC)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)
	5.2a Lifting speed, w/wo load ⁸ , (DC)	66.9/118 (0.34/0.6)	66.9/118 (0.34/0.6)	66.9/118 (0.34/0.6)	66.9/118 (0.34/0.6)
	5.2b Lifting speed, w/wo load ⁸ , (AC)	82.6/129.8 (0.42/0.66)	78.7/129.8 (0.40/0.66)	82.6/129.8 (0.42/0.66)	78.7/129.8 (0.40/0.66)
	5.3 Lowering speed, w/wo load ⁸ , (AC & DC)	108.3/88.6 (0.55/0.45)	108.3/88.6 (0.55/0.45)	108.3/88.6 (0.55/0.45)	108.3/88.6 (0.55/0.45)
	5.4 Reach speed, w/wo load ⁸ , (AC & DC)	29.5/29.5 (0.15/0.15)	29.5/29.5 (0.15/0.15)	29.5/29.5 (0.15/0.15)	29.5/29.5 (0.15/0.15)
	5.7 Climbing ability, w/wo load, 30 minute rating, (AC & DC)	4.5/8.2	4.7/8.2	4.5/8.2	4.7/8.2
	5.8 Maximum climbability, w/wo load, 30 minute rating, (AC & DC)	10/10	10/10	10/10	10/10
	5.9 Acceleration time, w/wo load, (AC & DC)	5.5/4.8	5.5/4.8	5.5/4.8	5.5/4.8
	5.10 Service brake	Hydraulic/Electric		Hydraulic/Electric	
	Drive	6.1a DC Drive motor, 60 min. rating	7.24 (5.4)	7.24 (5.4)	7.24 (5.4)
6.1b AC Drive Motor, 60 min. rating		8.05 (6)	8.05 (6)	8.05 (6)	8.05 (6)
6.2 Lift motor, 15% rating		16.1 (12)	16.1 (12)	16.1 (12)	16.1 (12)
6.4 Battery voltage/rated capacity (6h)		48/450		48/450	
6.5 Battery weight (minimum) ⁸		1,575 (714)	1,575	1,575 (714)	1,575
Other	8.1 Type of drive/hydraulic-steering control	Electronic/Stepless		Electronic/Stepless	
	8.2 Working pressure for attachments	2,900 (200)	2,900	2,900 (200)	2,900 (200)
	8.3 Oil flow for attachments	1.7 (6.5)	1.7 (6.5)	1.7 (6.5)	1.7 (6.5)
	8.4 Noise level at operator's ear	63 ⁵		63 ⁵	

- Capacity may be reduced for high lifts - see capacity diagrams.
- Alternative width of 63 in. (1600mm) available for R20W.
- Battery must be manufactured to IEC 254-2 Standards and Specifications.

- Lift heights of 251 in. (6,400 mm) and above increase length to fork face and 900 stacking aisle widths by 1 in. (27mm) on R20, R20N and R20W.
- Noise level increases to 66 dB when cab is installed.

Characteristics	Linde		Linde		Linde		Linde		Linde		
	16HD	R16N	R20	R20N	R20W	R20N	R20W	R20N	R20W		
1.1 Manufacturer	Linde		Linde		Linde		Linde		Linde		
1.2 Model designation	R16N		R20		R20N		R20N		R20W		
1.3 Power unit: Battery, Diesel, Gasoline, LP Gas	Battery		Battery		Battery		Battery		Battery		
1.4 Operation	Rider/Sit down		Rider/Sit down		Rider/Sit down		Rider/Sit down		Rider/Sit down		
1.5 Load capacity ¹	3,500 (1,600)	3,500 (1,600)	4,500 (2,000)	4,500 (2,000)	4,500 (2,000)	4,500 (2,000)	4,500 (2,000)	4,500 (2,000)	4,500 (2,000)		
1.6 Load center	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)		
1.8 Axle center to fork face	14.8 (380)	13.4 (346)	18.5 (475)	15.0 (385)	18.5 (475)	15.0 (385)	18.5 (475)	15.0 (385)	18.5 (475)		
1.9 Wheelbase	54.5 (1,385)	54.5 (1,385)	59.8 (1,520)	59.8 (1,520)	59.8 (1,520)	59.8 (1,520)	59.8 (1,520)	59.8 (1,520)	59.8 (1,520)		
Weight	2.1 Service weight (with minimum battery)	7,085 (3,214)	6,137 (2,784)	7,087 (3,215)	6,734 (3,054)	8,117 (3,682)	7,085 (3,214)	6,137 (2,784)	7,087 (3,215)	6,734 (3,054)	
	2.3 Axle load without load, front/rear	4,604/2,481 (2,088/1,125)	3,830/2,307 (1,737/1,046)	4,609/2,478 (2,090/1,124)	3,997/2,737 (1,813/1,241)	5,278/2,838 (2,394/1,287)	4,604/2,481 (2,088/1,125)	3,830/2,307 (1,737/1,046)	4,609/2,478 (2,090/1,124)	3,997/2,737 (1,813/1,241)	
	2.4 Axle load, forks extended with load, front/rear	958/9,627 (433/4,381)	1,020/8,618 (461/3,923)	1,517/10,070 (625/4,590)	1,456/9,778 (595/4,460)	1,640/10,977 (681/5,001)	958/9,627 (433/4,381)	1,020/8,618 (461/3,923)	1,517/10,070 (625/4,590)	1,456/9,778 (595/4,460)	
	2.5 Axle load, forks retracted with load, front/rear	3,958/6,627 (1,793/3,020)	3,195/6,442 (1,448/2,936)	4,424/7,163 (1,943/3,272)	3,543/7,691 (1,541/3,513)	4,807/7,810 (2,117/3,565)	3,958/6,627 (1,793/3,020)	3,195/6,442 (1,448/2,936)	4,424/7,163 (1,943/3,272)	3,543/7,691 (1,541/3,513)	
Wheels/Tires	3.1 Tires	Polyurethane		Polyurethane		Polyurethane		Polyurethane		Polyurethane	
	3.2 Tire size, front	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	13 x 5.3 (330 x 135)	
	3.3 Tire size, rear	11.2 x 3.9 (285 x 100)	11.2 x 3.9 (285 x 100)	13.8 x 3.9 (350 x 100)	13.8 x 3.9 (350 x 100)	13.8 x 3.9 (350 x 100)	11.2 x 3.9 (285 x 100)	11.2 x 3.9 (285 x 100)	13.8 x 3.9 (350 x 100)	13.8 x 3.9 (350 x 100)	
	3.5 Wheels, number front/rear (x = driven)	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	
3.7 Track width, rear	45.3 (1,150)	38.6 (980)	45.3 (1,150)	38.6 (980)	45.3 (1,150)	38.6 (980)	45.3 (1,150)	38.6 (980)	51.2 (1,300)		
Dimensions	4.1 Mast/fork carriage tilt, forward/back	2/4		2/4		2/4		2/4		2/4	
	4.2 Height of mast lowered	116 (2,930)	83.1 (2,110)	97.5 (2,476)	97.5 (2,476)	97.5 (2,476)	116 (2,930)	83.1 (2,110)	97.5 (2,476)	97.5 (2,476)	
	4.3 Free lift	82 (2,081)	49.7 (1,261)	64.1 (1,627)	64.1 (1,627)	64.1 (1,627)	82 (2,081)	49.7 (1,261)	64.1 (1,627)	64.1 (1,627)	
	4.4 Lift ⁷	251 (6,400)	183.3 (4,655)	183.3 (4,655)	183.3 (4,655)	183.3 (4,655)	251 (6,400)	183.3 (4,655)	183.3 (4,655)	183.3 (4,655)	
	4.5 Height of mast extended	281 (7,139)	212.4 (5,395)	212.4 (5,395)	212.4 (5,395)	212.4 (5,395)	281 (7,139)	212.4 (5,395)	212.4 (5,395)	212.4 (5,395)	
	4.7 Height of overhead guard (cabin)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	83.1 (2,110)	
	4.8 Height of seat, minimum/maximum	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	37/40.6 (940/1030)	
	4.10 Height of reach legs	12.2 (310)	12.2 (310)	14.7 (373)	14.7 (373)	14.7 (373)	12.2 (310)	12.2 (310)	14.7 (373)	14.7 (373)	
	4.19 Overall length	95.47 (2,425)	97.05 (2,465)	96.89 (2,461)	100.83 (2,561)	96.89 (2,461)	95.47 (2,425)	97.05 (2,465)	96.89 (2,461)	100.83 (2,561)	
	4.20 Length to fork face	48.23 (1,225)	49.80 (1,265)	49.65 (1,261) ⁵	53.58 (1,361) ⁵	49.65 (1,261) ⁵	48.23 (1,225)	49.80 (1,265)	49.65 (1,261) ⁵	53.58 (1,361) ⁵	
	4.21 Overall width	48.6/49.2 (1,234/1,250)	41.5/42.5 (1,054/1,080)	48.6/49.2 (1,234/1,250)	41.5/42.5 (1,054/1,080)	48.6/55.1 (1,234/1,400) ²	48.6/49.2 (1,234/1,250)	41.5/42.5 (1,054/1,080)	48.6/49.2 (1,234/1,250)	41.5/42.5 (1,054/1,080)	
	4.22 Fork dimensions	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	1.75x4x48 (45x100x1,200)	
	4.23 Fork carriage class	2A		2A		2A		2A		2A	
	4.24 Width of fork carriage	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	32.7 (830)	
	4.25 Fork spread, minimum/maximum	12.4/28.0 (316/710)	12.4/20.5 (316/520)	12.4/28.0 (316/710)	12.4/20.5 (316/520)	12.4/28.0 (316/710)	12.4/28.0 (316/710)	12.4/20.5 (316/520)	12.4/28.0 (316/710)	12.4/20.5 (316/520)	
	4.26 Width between reach legs	36.3 (922)	29.6 (752)	36.3 (922)	29.6 (752)	36.3 (922)	36.3 (922)	29.6 (752)	36.3 (922)	29.6 (752)	
	4.28 Reach travel	22.44 (570)	21.1 (536)	27.4 (695)	23.9 (608)	27.4 (695)	22.44 (570)	21.1 (536)	27.4 (695)	23.9 (608)	
4.31 Ground clearance, mast	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)		
4.32 Ground clearance, center of wheelbase	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)	3 (75)		
4.34 Aisle width w/pallet 40" x 48" (1000 x 1200) along forks	104.7 (2,660)	105.3 (2,675)	106.3 (2,700)	108.9 (2,765)	106.3 (2,700)	104.7 (2,660)	105.3 (2,675)	106.3 (2,700)	108.9 (2,765)		
4.35 Turning radius	64.6 (1,640)	63.8 (1,620)	69.9 (1,775)	68.9 (1,750)	69.9 (1,775)	64.6 (1,640)	63.8 (1,620)	69.9 (1,775)	68.9 (1,750)		
4.37 Length of chassis	68.8 (1,748)	69.1 (1,754)	75.2 (1,911)	75.6 (1,921)	75.2 (1,911)	68.8 (1,748)	69.1 (1,754)	75.2 (1,911)	75.6 (1,921)		
Performance	5.1 Travel speed, w/wo load ⁸ , (AC & DC)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	7.5/7.8 (12/12.5)	
	5.2a Lifting speed, w/wo load ⁸ , (DC)	59/94.4 (0.3/0.48)	66.9/118 (0.34/0.6)	59/94							