



## Electric Reach Truck Capacity 1400 – 1700 kg R 14 X – R 17 X

SERIES 116

### Safety

Operator compartment fully integral with truck body for optimum protection. Excellent all-round visibility afforded by panoramic window and ultra-wide mast. A whole new feeling of safety. Clear, unobstructed view of load and surroundings at all times.

### Performance

Traversing fork carriage with extremely short reach travel, superior rigidity of mast and high residual capacities. The innovative mast design of the Linde X-Range allows exceptionally fast load handling cycles at any height of lift. Placing the battery underneath the operator's seat has added significantly to truck stability.

### Comfort

Twice as much space inside the cab for greater freedom of movement. Generously sized super-comfort seat with integrated controls for a high-level of working comfort. Wide range of adjustments to accommodate operator's personal preferences, eliminating stress and enhancing productivity.



Linde Material Handling

*Linde*

### Reliability

The Linde X-Range easily copes with tough continuous duty. Its compact robot-welded chassis is designed for maximum strength and durability. Powerful maintenance-free AC motors ensure high precision of load handling while travelling and lifting.

### Productivity

Efficient mastering of every task. Electric power steering and the Linde twin drive pedal system bring increased speed and safety. All performance parameters of the Linde Digital Control system can be adjusted to match the specific application.

# Technical data

Characteristics	1.1	Manufacturer		LINDE	LINDE	
	1.2	Model designation		<b>R 14 X</b>	<b>R 16 X</b>	
	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)	1.400 <sup>1)</sup>	1.600 <sup>1)</sup>	
	1.6	Load centre	c (mm)	600/500	600/500	
	1.8	Axle centre to fork face	x (mm)	41	41	
	1.9	Wheelbase	y (mm)	1130	1130	
	Weights	2.1	Service weight	kg	3620	3810
2.3		Axle load without load, front (drive)/rear (load)	kg	1960/1660 <sup>2)</sup>	1980/1830 <sup>2)</sup>	
2.4		Axle load, fork outreached with load, front (drive)/rear (load)	kg	910/4110 <sup>2)</sup>	860/4550 <sup>2)</sup>	
2.5		Axle load, fork retracted with load, front (drive)/rear (load)	kg	1150/3870 <sup>2)</sup>	1150/4260 <sup>2)</sup>	
3.1		Tyres, front (drive)/rear (load) C = cushion rubber, P = polyurethane		P/P	P/P	
Wheels & Tyres	3.2	Tyre size, front (drive) wheel	mm	Ø 343 x 135	Ø 343 x 135	
	3.3	Tyre size, rear (load) wheel	mm	Ø 230 x 140	Ø 230 x 140	
	3.5	Wheels, number front (drive)/rear (load) (x = driven)		1x/2	1x/2	
	3.6	Track width, front (drive)	b10 (mm)	0	0	
	3.7	Track width, rear (load)	b11 (mm)	1072	1072	
	4.1	Mast/fork carriage tilt, forward/backward	$\alpha/\beta$ (°)	0/2.5 (2/2.5) <sup>3)</sup>	0/2.5 (2/2.5) <sup>3)</sup>	
	4.2	Height of mast, lowered	h1 (mm)	2455 <sup>4)</sup>	2455 <sup>4)</sup>	
4.3	Free lift	h2 (mm)	1541 <sup>4)</sup>	1541 <sup>4)</sup>		
4.4	Lift	h3 (mm)	4655 <sup>4)</sup>	5155 <sup>4)</sup>		
4.5	Height of mast, extended	h4 (mm)	5614 <sup>4)</sup>	6114 <sup>4)</sup>		
4.7	Height of overhead guard (cabin)	h6 (mm)	2190 (2365) <sup>5)</sup>	2355 (2530) <sup>5)</sup>		
4.8	Height of seat, min/max	h7 (mm)	970/1130	1135/1295		
4.10	Height of reach legs	h8 (mm)	245	245		
4.19	Overall length	l1 (mm)	2444	2444		
4.20	Length to fork face	l2 (mm)	1294	1294		
4.21	Overall width	b1/b2 (mm)	1270/1270	1270/1270		
4.22	Fork dimensions	s/e/l (mm)	40 x 80 x 1150	45 x 100 x 1150		
4.23	Fork carriage to DIN 15173, class/form A, B		2A	2A		
4.24	Width of fork carriage	b3 (mm)	820	820		
4.25	Fork spread, minimum/maximum	b5 (mm)	316/710	316/710		
4.26	Width between reach legs	b4 (mm)	910	910		
4.28	Reach travel	l4 (mm)	170	170		
4.31	Ground clearance, mast	m1 (mm)	-	-		
4.32	Ground clearance, centre of wheelbase	m2 (mm)	70	70		
4.33	Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	2666	2666		
4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2761	2761		
4.35	Turning radius	Wa (mm)	1335	1335		
4.37	Length of chassis	l7 (mm)	1451	1451		
Performance	5.1	Travel speed, with/without load	km/h	14/14 <sup>2) 6)</sup>	14/14 <sup>2) 6)</sup>	
	5.2	Lifting speed, with/without load	m/s	0.44/0.7 <sup>2) 6)</sup>	0.41/0.7 <sup>2) 6)</sup>	
	5.3	Lowering speed, with/without load	m/s	0.55/0.45 <sup>2)</sup>	0.55/0.45 <sup>2)</sup>	
	5.4	Reach speed, with/without load	m/s	0.10/0.105 <sup>2)</sup>	0.10/0.105 <sup>2)</sup>	
	5.7	Climbing ability, with/without load (30 minutes rating)	%	3.9/7.1	3.9/7.1	
	5.8	Maximum climbing ability, with/without load (5 minutes rating)	%	10/10	10/10	
	5.9	Acceleration time, with/without load	s	5.8/5 <sup>6)</sup>	5.8/5 <sup>6)</sup>	
	5.10	Service brake		hydraulic/electric	hydraulic/electric	
	Drive	6.1	Drive motor, 60 minutes rating	kW	6	6
		6.2	Lift motor, 15% rating	kW	15	15
6.3		Battery according to DIN 43531/35/36A, B, C, no		DIN 43531 A	DIN 43531 A	
6.4		Battery voltage/rated capacity (5h)	V/Ah	48/480	48/660	
6.5		Battery weight ( $\pm 5$ %)	kg	720	1013	
6.6		Power consumption according to VDI cycle	kWh/h	<sup>7)</sup>	<sup>7)</sup>	
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)	<sup>7)</sup>	<sup>7)</sup>	

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

2) Figures in brackets are with manually operated hydraulic fork tilt

3) For other heights, see table

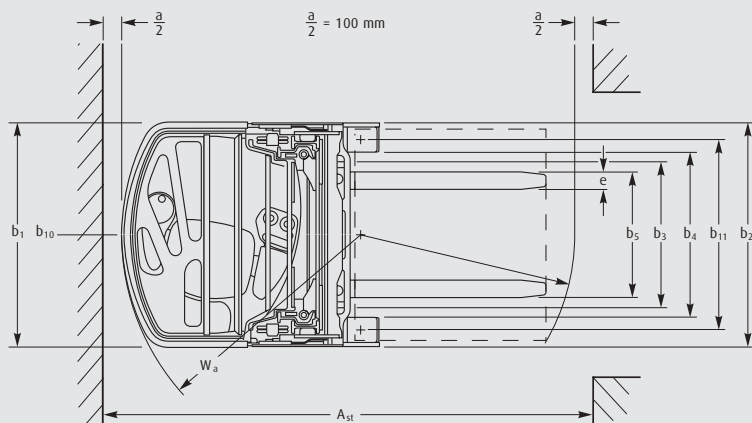
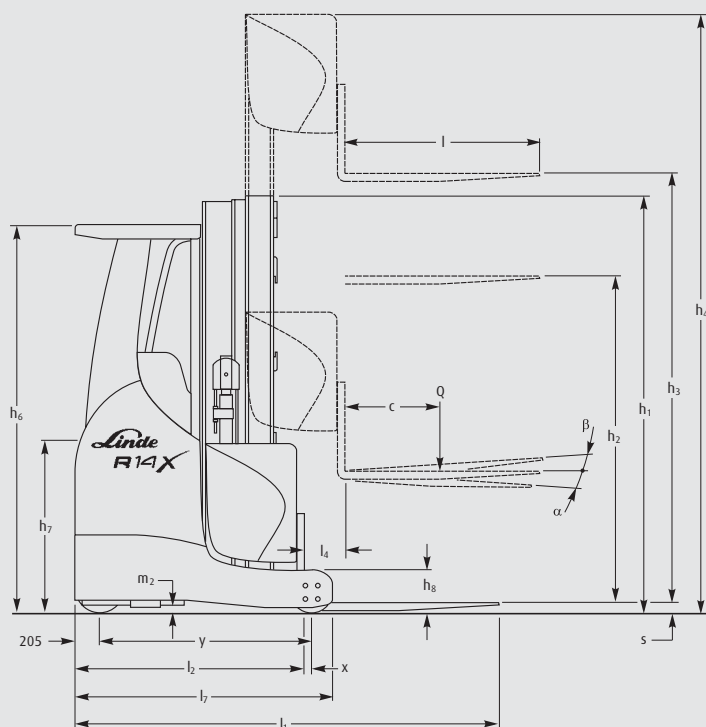
4) Figure in brackets is for optional overhead guard with increased headroom

5) Figure in brackets is for intrusive stacking

6) Reduced speed and acceleration on request

7) Refer to manufacturer for figures

LINDE	LINDE
<b>R 17 X</b>	<b>R 17 X HD</b>
Battery	Battery
Seated	Seated
1.700 <sup>1)</sup>	1.700 <sup>1)</sup>
600/500	600/500
41	41
1346	1346
3746	4330
1817/1929 <sup>2)</sup>	2100/2230 <sup>2)</sup>
896/4550 <sup>2)</sup>	1180/4850 <sup>2)</sup>
1340/4106 <sup>2)</sup>	1394/4636 <sup>2)</sup>
P/P	P/P
Ø 343 x 135	Ø 343 x 135
Ø 230 x 140	Ø 230 x 140
1x/2	1x/2
0	0
1072	1072
0/2.5 (2/2.5) <sup>3)</sup>	0/2.5 (2/2.5) <sup>3)</sup>
2955 <sup>4)</sup>	2955 <sup>4)</sup>
2041 <sup>4)</sup>	2041 <sup>4)</sup>
6355 <sup>4)</sup>	6955 <sup>4)</sup>
7314 <sup>4)</sup>	7914 <sup>4)</sup>
2190 (2365) <sup>5)</sup>	2355 (2530) <sup>5)</sup>
970/1130	1135/1295
245	245
2660	2660
1510	1510
1270/1270	1270/1270
45 x 100 x 1150	45 x 100 x 1150
2A	2A
820	820
316/710	316/710
910	910
170	170
-	-
70	70
2882	2882
2977	2977
1551	1551
1667	1667
14/14 <sup>2)</sup> <sup>6)</sup>	14/14 <sup>2)</sup> <sup>6)</sup>
0.4/0.7 <sup>2)</sup> <sup>6)</sup>	0.4/0.7 <sup>2)</sup> <sup>6)</sup>
0.55/0.45 <sup>2)</sup>	0.55/0.45 <sup>2)</sup>
0.10/0.105 <sup>2)</sup>	0.10/0.105 <sup>2)</sup>
3.9/7.1	3.9/7.1
10/10	10/10
5.8/5 <sup>6)</sup>	5.8/5 <sup>6)</sup>
hydraulic/electric	hydraulic/electric
6	6
15	15
DIN 43531 A	DIN 43531 A
48/640	48/920
946	1530
7)	7)
electronic/stepless	electronic/stepless
200	200
6.5	6.5
7)	7)



#### Overall height and lift height (in mm)

Lift	<b>h3</b>	4655	5155	5755	6355	6655	6955	7255	7555
Lift height	<b>h3+s</b>	4700	5200	5800	6400	6700	7000	7300	7600
Height of mast, lowered	<b>h1</b>	2455	2455	2955	2955	2955	2955	3455	3455
Height of mast, extended	<b>h4</b>	5614	6114	6714	7314	7614	7914	8214	8514
Free lift	<b>h2</b>	1541	1541	2041	2041	2041	2041	2541	2541
Lift	<b>h3</b>	7955	8255	8555	8955	9155	9455	9755	10155
Lift height	<b>h3+s</b>	8000	8300	8600	9000	9200	9500	9800	10200
Height of mast, lowered	<b>h1</b>	3455	3455	3955	3955	3955	3955	3955	4455
Height of mast, extended	<b>h4</b>	8914	9214	9514	9914	10114	10414	10714	11114
Free lift	<b>h2</b>	2541	2541	3041	3041	3041	3041	3041	3541
Lift	<b>h3</b>	10655	10755	11155	1455	-	-	-	-
Lift height	<b>h3+s</b>	10700	10800	11200	11500	-	-	-	-
Height of mast, lowered	<b>h1</b>	4455	4455	4930	4930	-	-	-	-
Height of mast, extended	<b>h4</b>	11614	11714	12114	12414	-	-	-	-
Free lift	<b>h2</b>	3541	3541	4016	4016	-	-	-	-



Linde  
R14X

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# Standard Equipment/Options

## Standard equipment

### Operation

Doubled operator working space  
Super-comfort seat with lumbar support  
Linde Load Control  
Linde twin drive pedals  
180° steering  
Electric rheological steering  
Head-up Linde Info Display including steering and lift height indicators  
Polyurethane drive and load wheels  
Self-adjusting load wheel brake

### Electronics

LDC (Linde Digital Control) system  
CAN bus architecture

### Safety

Electronic Monitoring Systems bring the truck to a safe stop in the event of traction, steering or lift failure  
High stability  
High residual capacity

Three independent braking systems

→ Regenerative electric braking when drive pedal is released  
→ Hydraulic all-wheel brakes  
→ Electric parking brake

Emergency circuit isolator (automatically applies parking brake)  
Seat-actuated traction power interlock  
Large safety glass window facing the load  
Electric and hydraulic overload protection

### Mast

Fixed ultra-wide mast with panoramic window  
Automatic fork tilting  
Integral sideshift  
High-lift hydraulic locking

### Traction and lift motors

6 kW maintenance-free AC traction motor  
15 kW maintenance-free AC lift motor

## Optional equipment

Ultra-wide mast for lift heights to  
9,500 mm – R 14 X  
11,500 mm – R 16 X  
11,500 mm – R 17 X  
11,500 mm – R 17 X HD  
Alternative fork lengths  
Fork extension  
Automatic horizontal positioning of forks (with manual fork tilting only)  
Manually operated fork tilting  
Automatic sideshift centering  
Load backrest  
Lift height preselector  
Separate hydraulic control levers  
Auxiliary hydraulic circuits  
Single drive pedal with direction selector  
360° steering (with single drive pedal only)  
Synthetic leather seat (with optional seat heater)

Extended seat back  
Worklamps  
Rotating beacon  
Strobe beacon  
High overhead guard (elevated 175 mm)  
Macrolon overhead guard screen  
Wire mesh overhead guard screen  
Swivel seat (R 17 X)  
Cold-store version (–30°C), permanent in  
Cold-store version (–30°C), in and out  
Cold store cab  
CCTV with monitor  
Keypad/PIN code operator access control  
LFM Linde Fleet Management  
Audible travel warning signal  
Custom paintwork

Other options available on request

# Features

## High-comfort operator compartment

- Double the normal operator working space
- All controls ergonomically grouped and individually adjustable
- Increased safety, superb panoramic visibility of load and surroundings due to operator position closer to mast and ultra-wide mast window
- Check on truck status made by Linde Info Display when switching on



## Stability

- Low truck center of gravity resulting from new battery position
- High-rigidity mast for fast load handling
- Superior residual capacities

## Maneuverability

- Easy maneuvering due to compact chassis
- Close turning made possible by short wheelbase

## Innovative mast design

- Panoramic view through ultra-wide mast
- Increased stability and reduced energy consumption as a result of mast being fixed to chassis
- Faster storage/retrieval cycles achieved with shorter reach travel

## Automatic fork tilt

- Automatic fork tilting on backward reach motion for smoother work cycles
- Sideshift as standard
- Optional pushbutton centering of sideshift



## Precision

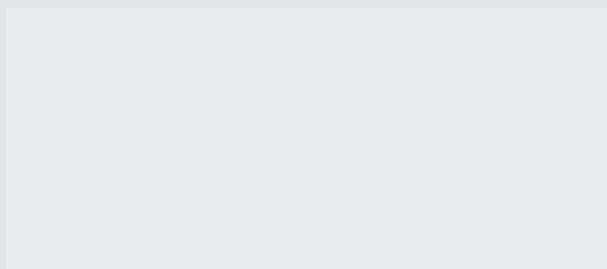
- Accurate control of travel with Linde twin drive pedals
- Precision load handling with Linde Load Control joysticks
- Responsive electric power steering
- Steering effort individually adjustable through rheological steering system
- Regenerative electric braking

## Power and drive system

- Streamlined battery change using pallet truck, change stand or automatic systems
- Optimum matching of power to requirements, high-capacity batteries 480 – 920 Ah for multiple-shift applications

## Servicing

- Zero-maintenance AC traction and lift motors
- Individually adjustable Linde Digital Control parameters
- All servicing points accessible at a single position
- Modern CAN bus architecture



## Linde AG

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