



Electric Reach Trucks  
Capacity 1000 - 2500 kg  
R 10 - R 25 / HD / N / W

Series 1120

### Safety

With four independent braking systems, fail-to-safe dual circuitry and an impressive range of operator protection features, a safe and efficient working environment is assured.

### Performance

Powerful AC traction and lift motors combined with the renowned Linde intelligent controller to deliver seamless, energy efficient performance for optimum productivity. Fixed clear view triplex masts with integrated sideshift as standard ensure smooth, highly efficient storage and retrieval cycles.

### Comfort

A world first sees the operator's work station resiliently mounted to the base chassis isolating the operator from shocks and vibrations. An ergonomic, fully adjustable air suspension seat and integral control console housing the fingertip joystick hydraulic levers together with a compact steering wheel gives unsurpassed levels of operator comfort. The unique Linde rheological electric steering system enables effortless operation and assured manoeuvring and travelling. In this superb, stress-free working environment, the operator is motivated and can fully focus on the task.

### Reliability

Durability and reliability are key elements in delivering cost effective supply chain solutions. Linde reach trucks benefit from the experience of over 60 years working in heavy industrial and commercial applications. All key components are designed and manufactured in-house to achieve these objectives. High residual capacities also result from this knowledge.

### Productivity

With the new Li-ION trucks from Linde; time intensive battery changing, long charging times and costly battery maintenance are no longer necessary thus extending operational uptime and increasing productivity. The new Li-ION maintenance and emission-free battery technology enables intermediate charging opportunities during any break period, which eliminates the need for battery changing routines.

Linde Material Handling

*Linde*

# Standard Equipment/Optional Equipment

## Standard Equipment

### General:

Overall width (reach legs) 1270 mm/1140 mm (N-version)  
Linde Load Control for lift/lower, reach, tilt and side shift  
Linde twin accelerator pedals  
Comprehensive digital instrument display  
Sealed, maintenance-free AC 6,5 kW drive & 14 kW lift motors  
Linde rheological 180° electric steering with tactile feedback  
Linde Digital Control System (LDC) for smooth, precise electronic control of all traction and hydraulic functions  
Polyurethane drive and load wheels tyres

### New Standard Features:

Variable energy saving/performance modes (Economy, Efficiency, Performance) for individual applications  
Resiliently mounted operator's compartment  
Fully adjustable air suspension seat with auto adjustment for operator's weight  
Integral, adjustable control console  
Generous storage compartments  
Lift height indicator above free lift zone  
Key switch, or alternatively PIN code access

### Mast:

Torsion-resistant fixed clear view triplex mast  
Tilting fork carriage and integral side shift  
Fork length 1150 mm

### Safety:

Monitoring system stops truck in the event of traction, steering or lift failure  
Seat-actuated traction interlock  
Linde Curve Assist  
Four independent braking systems (Regenerative and counter current braking, holding brake control with automatic parking brake and all-wheel brake system)  
Automatic slowdown at end of reach travel and at max. lift  
Lift height related travel speed reduction  
Emergency isolator  
Battery lock with creep speed interlock  
Electrical and hydraulic overload protection  
Protective polycarbonate screen between console and mast  
Electric horn

## Optional Equipment

Fixed clear view triplex masts with lift heights from 4355 mm to 12955 mm  
Linde Dynamic Mast Control (DMC) with Electric Reach (ER)  
Side shift centering  
Horizontal fork leveling  
Soft landing of forks  
Fork extensions  
Load backrest  
Single axis joysticks for each hydraulic function  
Single accelerator pedal, automotive layout with left foot interlock  
180°/360° steering (single accelerator pedal only)  
Reverse steering  
Lift height pre-selector  
PVC covered seat  
Leather reinforced seat squab  
Heated seat  
Cold store protection to -30°C  
Cold store cab (not available with narrow chassis)  
Ambient cab (not available with narrow chassis)  
High Vision armoured glass roof  
Draught protection door  
Protection frame  
Steel mesh profile or polycarbonate insert for overhead guard

Profiled overhead guard for drive-in racking  
Side guidance wheels  
Load wheel protection  
Mast mounted CCTV camera system  
Vision system, combined cameras on overhead guard and mast, split screen image  
Fan underneath overhead guard for driver comfort  
Radio Data Terminal bracket  
Option bar  
Interior light  
Auxiliary 12 V power socket  
2 VertiLights diagonally mounted on the mast  
LED standard working lights on overhead guard  
Rotating/flashing beacon  
Blue Spot™ safety light  
Connect Linde Fleet management  
Audible traction alarm  
Additional hydraulic circuit for attachments  
Battery on rollers  
Linde Li-ION truck version and Li-ION batteries (emission free, no battery changing required or battery maintenance)  
Alternative colour schemes  
Other options on request.

# Features

## Superb working environment

- Outstanding comfort and functionality from the unique, resiliently mounted work station with an air suspension comfort seat that is fully adjustable to the operator's personal preferences
- Integral, adjustable control console incorporating all operating controls
- Linde Load Control: precise, effortless fingertip control of all mast movements
- High Vision armoured glass overhead guard top panel available as an option



## Linde twin accelerator pedals

- Seamless and effortless forward/reverse selection provides outstanding traction control and places minimal demands on operator
- His left foot is safely protected within the chassis contours
- The operator is able to maintain high levels of efficiency and productivity

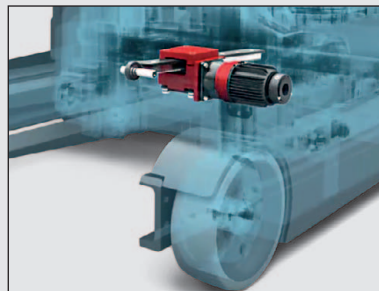


## Precision

- Confident, seamless manoeuvring with unique Linde twin accelerator pedals
- High precision load handling with Linde Load Control
- Highly responsive and progressive electric rheological steering
- Digital instrument display for instant readout of truck status
- Integral, adjustable operator's control console

## Manoeuvrability

- A short wheelbase with compact chassis dimensions and smooth, electric rheological steering ensure easy, efficient manoeuvring and accurate straight line traction performance
- Adjustable steering torque to suit operator's personal preferences
- Excellent all-round visibility of the load and surrounding environment



## Linde Dynamic Mast Control

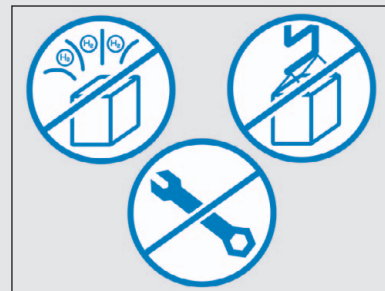
- A revolution in load handling ER & DMC - a world first for reach trucks
- The innovative core of this operator assist solution is the powerful and responsive, intelligent Electric Reach (ER) system
- The DMC based on Electric Reach counteracts the dynamic static mast deflection and oscillations generated during the lifting process

## Stability

- Chassis designed and built for maximum strength and durability
- Heavy-duty design and components enhance the inherent low centre of gravity for optimum stability and high residual capacities
- Linde Curve Assist for safe cornering

## Linde clear view mast

- Torsion-resistant fixed clear view triplex mast
- Twin cylinder configuration for optimum visibility
- Hydraulic hoses reeved through the mast to enhance visibility



## Li-ION batteries

- Emission-free batteries
- No battery gases (hydrogen) and acid
- No battery change necessary
- No requirement for a costly battery charging/changing room facility
- No battery-maintenance
- No battery cleaning or water top ups required

Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R10N</b>	<b>R12N</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	1.0	1.2
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	223	223
	1.9	Wheelbase	y (mm)	1275	1275
Weights	2.1	Service weight	(kg)	3050 <sup>1)</sup>	3050 <sup>1)</sup>
	2.3	Axle load without load, front/rear	(kg)	1760 / 1290	1760 / 1290
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	600 / 3450	477 / 3773
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	1464 / 2586	1405 / 2845
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 130	Ø 360 x 130
	3.3	Tyre size, rear		Ø 285 x 100	Ø 285 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1037	1037
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	2485	2485
4.3		Free lift	h2 (mm)	1636	1636
4.4		Lift	h3 (mm)	5760	5760
4.5		Height of mast, extended	h4 (mm)	6649	6649
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	307.5	307.5
4.19		Overall length	l1 (mm)	2423 <sup>3)</sup>	2423 <sup>3)</sup>
4.20		Length to fork face	l2 (mm)	1273	1273
4.21		Overall width	b1/b2 (mm)	1140	1140
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	40 x 80 x 1150	40 x 80 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	316 / 600	316 / 600
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	790	790
4.28		Reach travel	l4 (mm)	409	409
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	70
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2702 <sup>4)5)</sup>	2702 <sup>4)5)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2776 <sup>4)5)</sup>	2776 <sup>4)5)</sup>
4.35		Turning radius	Wa (mm)	1520 <sup>6)</sup>	1520 <sup>6)</sup>
4.37		Length of chassis	l7 (mm)	1641	1641
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>7)</sup>	14 / 14 <sup>7)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.57 / 0.7	0.55 / 0.7
	5.3	Lowering speed, with/without load	(m/s)	0.58 / 0.47	0.56 / 0.47
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	4.7 / 4.6	4.7 / 4.6
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / B	43 531 / B
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 420/465 <sup>8)</sup>	48 / 420/465 <sup>8)</sup>
	6.4.a	Battery energy content	(kWh)	-	-
	6.5	Battery weight (± 5%)	(kg)	746	746
6.6	Power consumption according to VDI cycle	(kWh/h)	3.1	3.3	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	64	64

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4



# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R14</b>	<b>R14HD</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	1.4	1.4
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	399	275
	1.9	Wheelbase	y (mm)	1381	1381
Weights	2.1	Service weight	(kg)	3065 <sup>9)</sup>	3735 <sup>9)</sup>
	2.3	Axle load without load, front/rear	(kg)	1940 / 1125	2090 / 1645
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	665 / 3800	810 / 4325
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	1736 / 2729	1761 / 3374
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 130	Ø 360 x 130
	3.3	Tyre size, rear		Ø 285 x 100	Ø 285 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1167	1167
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	2485	3180
4.3		Free lift	h2 (mm)	1636	2051
4.4		Lift	h3 (mm)	5760	7555
4.5		Height of mast, extended	h4 (mm)	6649	8301
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>5)</sup>	2110 <sup>5)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	307.5	307.5
4.19		Overall length	l1 (mm)	2351 <sup>6)</sup>	2475 <sup>6)</sup>
4.20		Length to fork face	l2 (mm)	1201	1325
4.21		Overall width	b1/b2 (mm)	1270	1270
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	40 x 80 x 1150	45 x 100 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	296 / 690	316 / 710
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	920	920
4.28		Reach travel	l4 (mm)	585	465
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	70
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2689 <sup>7)8)</sup>	2781 <sup>7)8)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2735 <sup>7)8)</sup>	2848 <sup>7)8)</sup>
4.35		Turning radius	Wa (mm)	1640 <sup>8)</sup>	1640 <sup>8)</sup>
4.37		Length of chassis	l7 (mm)	1737	1737
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>8)</sup>	14 / 14 <sup>8)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.53 / 0.7	0.55 / 0.66
	5.3	Lowering speed, with/without load	(m/s)	0.53 / 0.47	0.55 / 0.44
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	4.7 / 4.6	4.8 / 4.7
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531/C [Li-ION]	43 531/C [Li-ION]
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 420/465 [48/201] <sup>8)</sup>	48 / 560/620 [48/804] <sup>8)</sup>
	6.4.a	Battery energy content	(kWh)	[9.8] <sup>8)</sup>	[39.2] <sup>8)</sup>
	6.5	Battery weight (± 5%)	(kg)	750	939
6.6	Power consumption according to VDI cycle	(kWh/h)	3.5	3.7	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	63	63

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R14N</b>	<b>R16</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	1.4	1.6
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	401	466
	1.9	Wheelbase	y (mm)	1453	1453
Weights	2.1	Service weight	(kg)	3080 <sup>1)</sup>	3075 <sup>1)</sup>
	2.3	Axle load without load, front/rear	(kg)	1920 / 1160	1995 / 1080
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	706 / 3774	745 / 3930
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	1728 / 2752	1847 / 2828
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 130	Ø 360 x 130
	3.3	Tyre size, rear		Ø 285 x 100	Ø 285 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1037	1167
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	2485	2485
4.3		Free lift	h2 (mm)	1636	1636
4.4		Lift	h3 (mm)	5760	5760
4.5		Height of mast, extended	h4 (mm)	6649	6649
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	307.5	307.5
4.19		Overall length	l1 (mm)	2423 <sup>3)</sup>	2356 <sup>3)</sup>
4.20		Length to fork face	l2 (mm)	1273	1206
4.21		Overall width	b1/b2 (mm)	1140	1270
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	40 x 80 x 1150	45 x 100 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	316 / 600	296 / 690
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	790	920
4.28		Reach travel	l4 (mm)	587	657
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	70
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2738 <sup>4)6)</sup>	2713 <sup>4)6)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2784 <sup>4)6)</sup>	2746 <sup>4)6)</sup>
4.35		Turning radius	Wa (mm)	1690 <sup>7)</sup>	1710 <sup>7)</sup>
4.37		Length of chassis	l7 (mm)	1819	1817
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>8)</sup>	14 / 14 <sup>8)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.53 / 0.7	0.51 / 0.7
	5.3	Lowering speed, with/without load	(m/s)	0.53 / 0.47	0.47 / 0.47
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	4.7 / 4.6	4.8 / 4.7
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / B	43 531/C [Li-ION]
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 420/465 <sup>8)</sup>	48 / 420/465 [48/201] <sup>8)</sup>
	6.4.a	Battery energy content	(kWh)	-	[9.8] <sup>8)</sup>
	6.5	Battery weight (± 5%)	(kg)	746	750
6.6	Power consumption according to VDI cycle	(kWh/h)	3.5	3.7	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	63	63

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE	
	1.2	Manufacturer's type designation		<b>R16HD</b>	<b>R16N</b>	
	1.2a	Series		1120-00	1120-00	
	1.3	Power unit		Battery	Battery	
	1.4	Operation		Seat	Seat	
	1.5	Load capacity/Load	Q (t)	1.6	1.6	
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500	
	1.8	Axle centre to fork face	x (mm)	347	396	
	1.9	Wheelbase	y (mm)	1453	1453	
Weights	2.1	Service weight	(kg)	3955 <sup>1)</sup>	3080 <sup>1)</sup>	
	2.3	Axle load without load, front/rear	(kg)	2330 / 1625	1920 / 1160	
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	815 / 4740	600 / 4080	
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	2051 / 3504	1695 / 2985	
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane	
	3.2	Tyre size, front		Ø 360 x 130	Ø 360 x 130	
	3.3	Tyre size, rear		Ø 285 x 100	Ø 285 x 100	
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2	
	3.6	Track width, front	b10 (mm)	0	0	
	3.7	Track width, rear	b11 (mm)	1167	1037	
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	3430	2485	
4.3		Free lift	h2 (mm)	2301	1636	
4.4		Lift	h3 (mm)	8255	5760	
4.5		Height of mast, extended	h4 (mm)	9001	6649	
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>	
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040	
4.10		Height of reach legs	h8 (mm)	307.5	307.5	
4.19		Overall length	l1 (mm)	2475 <sup>3)</sup>	2428 <sup>3)</sup>	
4.20		Length to fork face	l2 (mm)	1325	1278	
4.21		Overall width	b1/b2 (mm)	1270	1140	
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	45 x 100 x 1150	45 x 100 x 1150	
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A	
4.24		Width of fork carriage	b3 (mm)	830	830	
4.25		Fork spread	b5 (mm)	316 / 710	316 / 600	
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	920	790	
4.28		Reach travel	l4 (mm)	537	587	
4.31		Ground clearance, below mast	m1 (mm)	75	75	
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	70	
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2797 <sup>4)6)</sup>	2741 <sup>4)6)</sup>	
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2852 <sup>4)6)</sup>	2788 <sup>4)6)</sup>	
4.35		Turning radius	Wa (mm)	1710 <sup>7)</sup>	1690 <sup>7)</sup>	
4.37		Length of chassis	l7 (mm)	1817	1819	
Performance		5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>8)</sup>	14 / 14 <sup>8)</sup>
		5.2	Lifting speed, with/without load	(m/s)	0.52 / 0.66	0.51 / 0.7
		5.3	Lowering speed, with/without load	(m/s)	0.55 / 0.44	0.47 / 0.47
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2	
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0	
	5.9	Acceleration time, with/without load	(s)	4.9 / 4.7	4.8 / 4.6	
	5.10	Service brake		hydr./mech.	hydr./mech.	
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5	
	6.2	Lift motor rating at S3 15%	(kW)	14	14	
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531/C [Li-ION]	43 531 / B	
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 560/620 [48/804] <sup>8)</sup>	48 / 420/465 <sup>8)</sup>	
	6.4.a	Battery energy content	(kWh)	[39.2] <sup>8)</sup>	-	
	6.5	Battery weight (± 5%)	(kg)	939	746	
6.6	Power consumption according to VDI cycle	(kWh/h)	3.9	3.7		
Others	10.1	Operating pressure for attachments	(bar)	200	200	
	10.2	Oil flow for attachments	(l/min)	10	10	
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	63	63	

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R20</b>	<b>R20HD</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	2.0	2.0
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	347	419
	1.9	Wheelbase	y (mm)	1525	1669
Weights	2.1	Service weight	(kg)	4380 <sup>1)</sup>	5135 <sup>1)</sup>
	2.3	Axle load without load, front/rear	(kg)	2540 / 1840	2945 / 2190
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	695 / 5685	1020 / 6115
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	2208 / 4172	2728 / 4407
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 140	Ø 360 x 140
	3.3	Tyre size, rear		Ø 350 x 100	Ø 350 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1167	1167
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	3655	4930
4.3		Free lift	h2 (mm)	2776	3800
4.4		Lift	h3 (mm)	8955	11455
4.5		Height of mast, extended	h4 (mm)	9701	12201
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	372.5	372.5
4.19		Overall length	l1 (mm)	2547 <sup>3)</sup>	2619 <sup>3)</sup>
4.20		Length to fork face	l2 (mm)	1397	1469
4.21		Overall width	b1/b2 (mm)	1270	1270
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	45 x 100 x 1150	45 x 100 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	316 / 710	316 / 710
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	920	920
4.28		Reach travel	l4 (mm)	567	639
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	65
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2865 <sup>4)6)</sup>	2950 <sup>4)6)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2920 <sup>4)6)</sup>	2992 <sup>4)6)</sup>
4.35		Turning radius	Wa (mm)	1778 <sup>7)</sup>	1915 <sup>7)</sup>
4.37		Length of chassis	l7 (mm)	1922	2066
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>8)</sup>	14 / 14 <sup>8)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.46 / 0.66	0.46 / 0.66
	5.3	Lowering speed, with/without load	(m/s)	0.55 / 0.44	0.55 / 0.44
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	5.1 / 4.7	5.3 / 4.8
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531/C [Li-ION]	43 531/C [Li-ION]
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 700/775 [48/804] <sup>8)</sup>	48 / 840/930 [48/804] <sup>8)</sup>
	6.4.a	Battery energy content	(kWh)	[39.2] <sup>8)</sup>	[39.2] <sup>8)</sup>
	6.5	Battery weight (± 5%)	(kg)	1119	1306 [1119] <sup>8)</sup>
6.6	Power consumption according to VDI cycle	(kWh/h)	4.3	4.6	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	64	64

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4



# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R20N</b>	<b>R20W-1470</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	2.0	2.0
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	259	347
	1.9	Wheelbase	y (mm)	1525	1525
Weights	2.1	Service weight	(kg)	4235 <sup>1)</sup>	4465 <sup>1)</sup>
	2.3	Axle load without load, front/rear	(kg)	2280 / 1955	2600 / 1865
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	645 / 5590	755 / 5710
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	1833 / 4402	2268 / 4197
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 140	Ø 360 x 140
	3.3	Tyre size, rear		Ø 350 x 100	Ø 350 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1037	1367
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	3655	3655
4.3		Free lift	h2 (mm)	2776	2776
4.4		Lift	h3 (mm)	8955	8955
4.5		Height of mast, extended	h4 (mm)	9701	9701
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	372.5	372.5
4.19		Overall length	l1 (mm)	2635 <sup>3)</sup>	2547 <sup>3)</sup>
4.20		Length to fork face	l2 (mm)	1485	1397
4.21		Overall width	b1/b2 (mm)	1140	1470
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	45 x 100 x 1150	45 x 100 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	316 / 600	316 / 710
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	790	1120
4.28		Reach travel	l4 (mm)	479	567
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	70
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2913 <sup>4)6)</sup>	2897 <sup>4)6)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2982 <sup>4)6)</sup>	2952 <sup>4)6)</sup>
4.35		Turning radius	Wa (mm)	1760 <sup>5)</sup>	1810 <sup>5)</sup>
4.37		Length of chassis	l7 (mm)	1924	1922
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>7)</sup>	14 / 14 <sup>7)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.43 / 0.52	0.46 / 0.66
	5.3	Lowering speed, with/without load	(m/s)	0.55 / 0.44	0.55 / 0.44
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	5.1 / 4.7	5.2 / 4.7
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / B	43 531/C [Li-ION]
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 700/775 <sup>8)</sup>	48 / 700/775 [48/804] <sup>8)</sup>
	6.4.a	Battery energy content	(kWh)	-	[39.2] <sup>8)</sup>
	6.5	Battery weight (± 5%)	(kg)	1119	1119
6.6	Power consumption according to VDI cycle	(kWh/h)	5.1	4.3	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	64	64

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Manufacturer's type designation		<b>R20W-1670</b>	<b>R25</b>
	1.2a	Series		1120-00	1120-00
	1.3	Power unit		Battery	Battery
	1.4	Operation		Seat	Seat
	1.5	Load capacity/Load	Q (t)	2.0	2.5
	1.6	Load centre distance	c (mm)	600 / 500	600 / 500
	1.8	Axle centre to fork face	x (mm)	347	419
	1.9	Wheelbase	y (mm)	1525	1669
Weights	2.1	Service weight	(kg)	4515 <sup>1)</sup>	5135 <sup>1)</sup>
	2.3	Axle load without load, front/rear	(kg)	2640 / 1875	2945 / 2190
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	795 / 5720	765 / 6870
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	2308 / 4207	2674 / 4961
Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 140	Ø 360 x 140
	3.3	Tyre size, rear		Ø 350 x 100	Ø 350 x 100
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2
	3.6	Track width, front	b10 (mm)	0	0
	3.7	Track width, rear	b11 (mm)	1567	1167
	Dimensions	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	2.0 / 4.0
4.2		Height of mast, lowered	h1 (mm)	3655	4930
4.3		Free lift	h2 (mm)	2776	3800
4.4		Lift	h3 (mm)	8955	11455
4.5		Height of mast, extended	h4 (mm)	9701	12201
4.7		Height of overhead guard (cabin)	h6 (mm)	2110 <sup>2)</sup>	2110 <sup>2)</sup>
4.8		Height of seat/stand on platform	h7 (mm)	910 - 1040	910 - 1040
4.10		Height of reach legs	h8 (mm)	372.5	372.5
4.19		Overall length	l1 (mm)	2547 <sup>3)</sup>	2619 <sup>3)</sup>
4.20		Length to fork face	l2 (mm)	1397	1469
4.21		Overall width	b1/b2 (mm)	1670	1270
4.22		Fork dimensions DIN ISO 2331	s/e/l (mm)	45 x 100 x 1150	45 x 100 x 1150
4.23		Fork carriage to ISO 2328, class/type A, B		2A	2A
4.24		Width of fork carriage	b3 (mm)	830	830
4.25		Fork spread	b5 (mm)	316 / 710	316 / 710
4.26		Distance between wheel arms/loading surfaces	b4 (mm)	1320	920
4.28		Reach travel	l4 (mm)	567	639
4.31		Ground clearance, below mast	m1 (mm)	75	75
4.32		Ground clearance, centre of wheelbase	m2 (mm)	70	65
4.34.1		Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2937 <sup>3)4)</sup>	2950 <sup>3)4)</sup>
4.34.2		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2992 <sup>3)4)</sup>	2992 <sup>3)4)</sup>
4.35		Turning radius	Wa (mm)	1850 <sup>5)</sup>	1915 <sup>5)</sup>
4.37		Length of chassis	l7 (mm)	1922	2066
Performance	5.1	Travel speed, with/without load	(km/h)	14 / 14 <sup>6)</sup>	14 / 14 <sup>6)</sup>
	5.2	Lifting speed, with/without load	(m/s)	0.46 / 0.66	0.39 / 0.66
	5.3	Lowering speed, with/without load	(m/s)	0.55 / 0.44	0.55 / 0.44
	5.4	Reach speed, with/without load	(m/s)	0.2	0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 10.0	10.0 / 10.0
	5.9	Acceleration time, with/without load	(s)	5.2 / 4.7	5.4 / 4.8
	5.10	Service brake		hydr./mech.	hydr./mech.
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	6.5
	6.2	Lift motor rating at S3 15%	(kW)	14	14
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531/C [Li-ION]	43 531/C [Li-ION]
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 700/775 [48/804] <sup>7)8)</sup>	48 / 840/930 [48/804] <sup>7)8)</sup>
	6.4.a	Battery energy content	(kWh)	[39.2] <sup>8)</sup>	[39.2] <sup>8)</sup>
	6.5	Battery weight (± 5%)	(kg)	1119	1306 [1119] <sup>8)</sup>
6.6	Power consumption according to VDI cycle	(kWh/h)	4.3	-	
Others	10.1	Operating pressure for attachments	(bar)	200	200
	10.2	Oil flow for attachments	(l/min)	10	10
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	64	64

- 1) Alternative batteries may alter l1, Ast and service weight.
- 2) With ambient cabin + 95 mm
- 3) Including a 200 mm (min.) operating aisle clearance.
- 4) Some truck specification require a reach-back restriction. Please note information in Linde World mast table.

- 5) Attention, with cabin increased turning radius (Wa) due to required fender.
- 6) forward; backward
- 7) Depending on performance setting
- 8) Figures in [ ] with Li-ION battery see line 6.4

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

**R 10 N, R 12 N, R 14 N, R 14, R 16 and R 16 N**

Lift	<b>h3</b>	4660	5160	5760	6260	6660	6960	7260	7560	7960	8260	8560	-	-	-
Free lift	<b>h2</b>	1286	1436	1636	1811	1936	2061	2161	2261	2411	2511	2636	-	-	-
Height of mast, lowered	<b>h1</b>	2135	2285	2485	2660	2785	2910	3010	3110	3260	3360	3485	-	-	-
Height of mast, extended	<b>h4</b>	5549	6049	6649	7149	7549	7849	8149	8449	8849	9149	9449	-	-	-

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

**R 14 HD: 4355 - 9455 mm, R 16 HD: 4355 - 11455 mm, R 20: 4355 - 11455 mm, R 20 HD: 4355 - 12955 mm, R 20 N: 4355 - 9455 mm, R 25: 4355 - 7955 mm**

Lift	<b>h3</b>	4355	4655	5155	5755	6355	6655	6955	7255	7555	7955	8255	8555	8955	9155
Free lift	<b>h2</b>	1001	1101	1251	1451	1651	1751	1851	1951	2051	2201	2301	2401	2526	2601
Height of mast, lowered	<b>h1</b>	2130	2230	2380	2580	2780	2880	2980	3080	3180	3330	3430	3530	3655	3730
Height of mast, extended	<b>h4</b>	5101	5401	5901	6501	7101	7401	7701	8001	8301	8701	9001	9301	9701	9901
<b>R 14 HD: 4355 - 9455 mm, R 16 HD: 4355 - 11455 mm, R 20: 4355 - 11455 mm, R 20 HD: 4355 - 12955 mm, R 20 N: 4355 - 9455 mm, R 25: 4355 - 7955 mm</b>	<b>h3</b>	9455	9655	9955	10155	10455	10655	10955	11155	11455	11755	11955	12255	12455	12955
Free lift	<b>h2</b>	2701	2751	2901	3026	3176	3301	3476	3601	3801	3975	4100	4300	4425	4800
Height of mast, lowered	<b>h1</b>	3830	3880	4030	4155	4305	4430	4605	4730	4930	5105	5230	5430	5555	5930
Height of mast, extended	<b>h4</b>	10201	10401	10701	10901	11201	11401	11701	11901	12201	12501	12701	13001	13201	13701

Alternative lift heights are available on request.

Lift height = h3 + s





