

Standard Equipment/Optional Equipment

Standard Equipment

General:	Ground clearance 80 mm
Individual fingertip control levers for precision load handling	Load weight indicator +/- 100 kg
Midi steering wheel, adjustable in length, height and angle	Lift height indicator above free lift
360° steering with steering angle indicator	Automatically adjusts the max. travel speed according to the actual load weight
Single pedal with hand operated direction selection	Max. travel speed 13 km/h
Maintenance-free AC 7.2 kW traction and 15 kW lift motor	Chill store design, down to +1° Celsius
Polyurethane drive and load wheel tyres	Mast:
Battery residual capacity display	Tilting clear-view triplex mast with excellent visibility
48 V batteries with capacities from 465 Ah to 930 Ah	Safety:
Battery reaches forward for changing or daily checks	Automatic electric parking brake
Key switch or PIN code entry	Electromagnetic disc brake on the drive wheel and electric load wheel brake
Foot step to floor, 400 mm, including instep handle	Polycarbonate screen between operator and mast
Integral control console with 60 mm horizontal adjustment	Automatic slowdown at end of reach travel and max. lift
Armrest adjustable in height	Lift height related travel speed reduction
Rear view mirror	Battery lock with creep speed interlock
Fork spreader V= 560-1550 mm to select	Linde Curve Assist
a) manually, b) hydraulically	Load weight indicator +/- 100 kg
New Standard Features:	Lift height indicator above free lift
Comfort fabric suspension seat with tilting high backrest and inflatable lumbar support	
Electrically adjustable floor plate height 550-620 mm	

Optional Equipment

Manual or hydraulic fork spreader up to 2,220 mm overall width across forks	Comfort PVC suspension seat with tilting high backrest, inflatable lumbar support and headrest
Alternative fork lengths	Headrest
Auto levelling of forks	Heated seat
Lift height preselector, operates only above free lift stage	12 V DC Power Socket
Height assistance system	Clipboard
Lift stop with or without override switch	Mounting for data terminal (RAM C/ RAM D holder)
Lower and reach back interlock 600 mm with override	Radio / CD and MP3
Creep speed from predetermined lift height	Battery mounted on rollers in truck
2 x rear facing working lights	Equipment bar
Flashing beacon on overhead guard (increased h6 to 2270 mm)	Lateral driving camera and monitor (not in combination with rear view mirror)
Flashing beacon on cabin (increased h6 to 2325 mm)	Alternative colour schemes
Mesh on overhead guard	Ambient cabin, with electrical heating
Audible battery discharge indication, present at 25% (adjustable)	Opening window in cabin door
Automatic truck shut-off	Intercom System
Maintenance interval display	Internal panorama mirror
Traction control system	Wide selection of battery chargers for single and multiple shift applications

Other options available on request.



Electric Four Way Reach Truck Capacity 2000 kg + 2500 kg R 20 F – R 25 F

Series 8923

Linde Material Handling

Linde

Safety

Designed for optimum operator comfort and safety. Multi directional ability enables long or wide loads to be handled safely and efficiently. To operate the truck either key switch entry or PIN access are available as standard. Personal ID is available with pre-programmed performance parameters for each individual operator. The electromagnetic drive wheel disc brake and regenerative braking together with seamless proportional electric braking on the steered load wheel provide assured, precise stopping power.

Performance

Rapid lift and traction speeds are controlled by energy efficient digital AC technology for maximum productivity. The truck can be driven in any direction with smooth precision. The drive wheel and steered load wheel are synchronized to ensure safe rapid direction changes and maneuvering for productive, cost-efficient load handling.

Comfort

The ergonomic tilting seat with high backrest and inflatable lumbar support and combined with height adjustable floor plate provide a superb, fatigue-free working environment. A tapered backrest profile enables strain free turning of the upper torso when travelling or maneuvering.

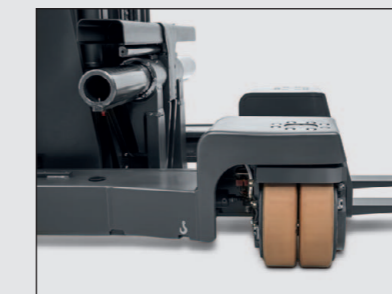
Features

Superb working environment

- Ergonomic comfort seat has a high, tilting backrest and inflatable lumbar support.
- A tapered backrest profile enables strain-free turning of the upper torso when travelling or maneuvering.
- Additionally the dynamic tilting backrest provides a clear upward view to the load and forks, without straining the neck.
- The steering and control consoles are adjustable.
- Cushioned, adjustable armrest
- Electrically adjustable floor plate height 550-620 mm

Maneuverability

- Four-way traction ability provides outstanding multi-directional versatility and maneuverability for handling long or wide loads across the forks as well as standard pallets.
- Synchronised steering system for rapid, seamless transfer between normal and lateral driving.
- 360° steering with direction selection



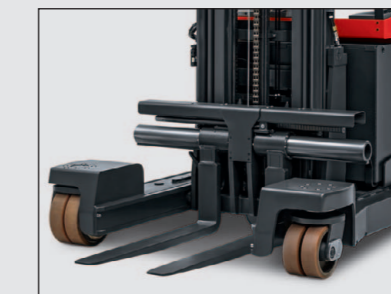
Servicing

- Easy service access
- Maintenance-free AC traction, lift and steer motors
- Digital control system enables performance parameters to be individually adjusted
- Modern CAN bus technology
- Up to 1000 operating hours between services



Mast and load handling

- Tilting clear-view triplex mast with full free lift
- Lifting, lowering, mast reach, mast tilt and side shift are electronically adjustable.
- Fork spreader designed to enhance load-handling efficiency, manually or hydraulically; standard V=560-1550 mm (optional V=560-2220 mm)



Digital truck controller

- Task-specific parameter configuring
- Excellent reliability and safety
- Very energy efficient
- Electronic system automatically self-checks at power-on

Stability

- Chassis designed for maximum structural integrity and durability
- A low centre of gravity provides optimum stability and high residual capacities
- Robust integrated manual or hydraulic fork spreader to handle long or wide loads with ease.
- All tyres are Polyurethane for long life
- Rugged, clear view overhead guard

Batteries

- Battery capacities to suit every application: 465 Ah to 930 Ah
- Rapid and easy lift-out battery changing system. Optional battery carrier on steel rollers
- Optional audible warning when battery level is low.



Operator compartment

- Optimum visibility with new overhead guard design
- Ambient cabin, with electrical heating
- Document compartment with cup holder
- 12 V electrical socket to charge devices
- Storage holders for drinks and pen/pencils
- Lateral driving camera and monitor
- Ambient cabin with electrical heating

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Linde Material Handling

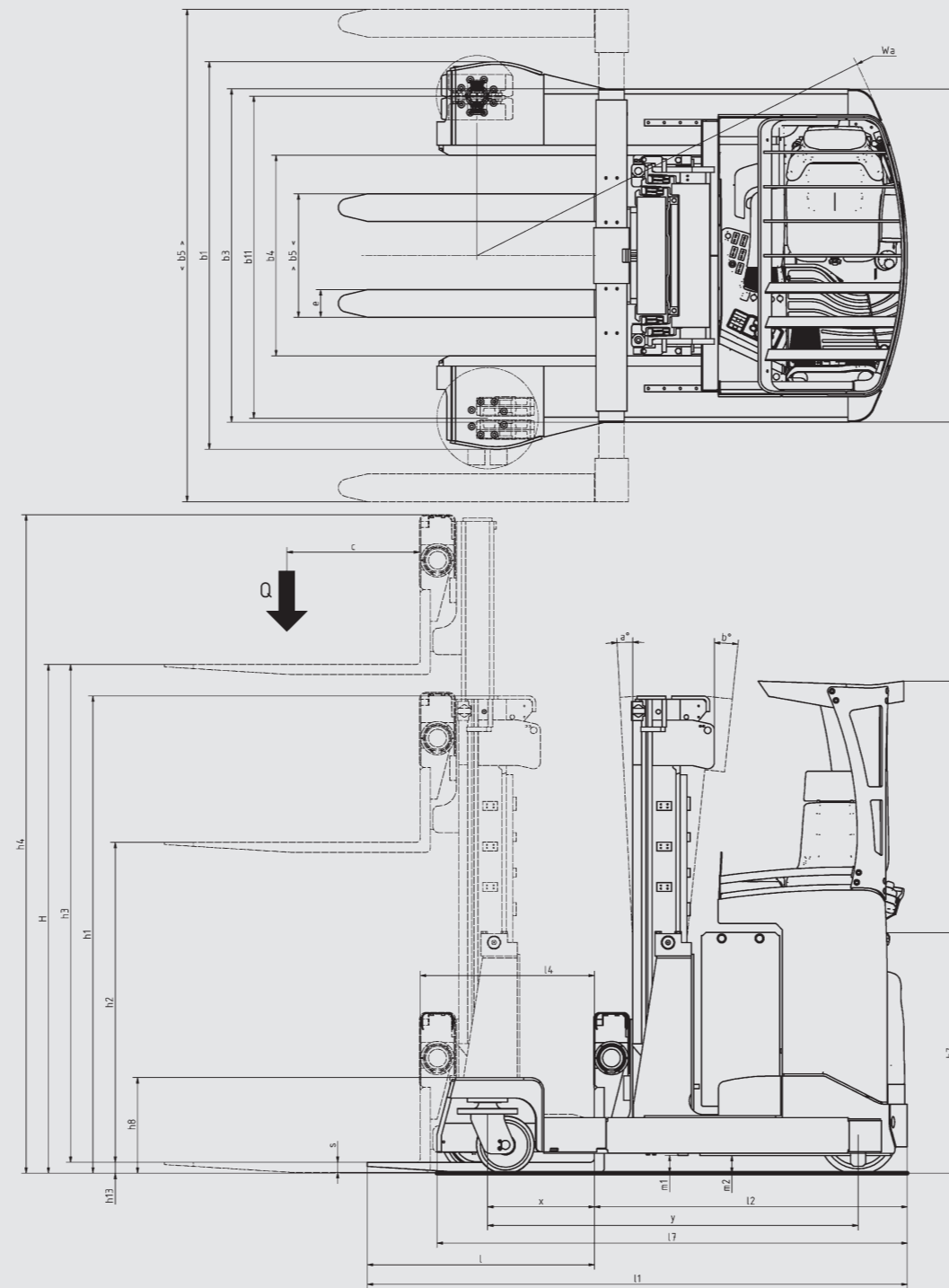
Linde

Technical Data according to VDI 2198

		LINDE		LINDE	
Characteristics	1.1	Manufacturer		LINDE	LINDE
	1.2	Model designation		R20F	R25F
	1.2a	Series		8923	8923
	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	c (mm)	600	600
	1.8	Axle centre to fork face	x (mm)	449 ¹⁾	527 ¹⁾
	1.9	Wheelbase	y (mm)	1505	1665
Weights	2.1	Service weight	(kg)	4360	4960
	2.3	Axle load without load, front/rear	(kg)	2550 / 1810	2880 / 2080
	2.4	Axle load, fork outreached, with load, front/rear	(kg)	800 / 5560	660 / 6800
	2.5	Axle load, fork retracted, with load, front/rear	(kg)	2349 / 4011	2770 / 4690
	Wheels/Tyres	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane
3.2		Tyre size, front		Ø 355 x 155	Ø 355 x 155
3.3		Tyre size, rear		Ø 320 x 100 / Ø 260 x 85	Ø 320 x 100 / Ø 260 x 85
3.5		Wheels, number front/rear (x = driven)		1x / 4	1x / 4
3.6		Track width, front	b10 (mm)	0	0
Dimensions	3.7	Track width, rear	b11 (mm)	1444	1444
	4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	1.5/3.5 1.0/3.0 1.0/1.0 ²⁾	1.5/3.5 1.0/3.0 1.0/1.0 ²⁾
	4.2	Height of mast, lowered	h1 (mm)	2800	3367
	4.3	Free lift	h2 (mm)	2070	2637
	4.4	Lift	h3 (mm)	6250	7500
	4.5	Height of mast, extended	h4 (mm)	7000	8250
	4.7	Height of overhead guard (cabin)	h6 (mm)	2215	2215
	4.8	Height of seat/stand on platform	h7 (mm)	1087	1087
	4.10	Height of reach legs	h8 (mm)	430	430
	4.15	Height, lowered	h13 (mm)	50	50
	4.19	Overall length	l1 (mm)	2473 ³⁾	2555 ³⁾
	4.20	Length to fork face	l2 (mm)	1323 ³⁾	1405 ³⁾
	4.21	Overall width	b1/b2 (mm)	1744 / 1498	1744 / 1498
	4.22	Fork dimensions	s/e/l (mm)	45 x 125 x 1150	45 x 125 x 1150
	4.23	Fork carriage to ISO 2328, class/type A, B		-	-
	4.24	Width of fork carriage	b3 (mm)	1500	1500
	4.25	Fork spread, min/max	b5 (mm)	556-1555 / 556-2220	556-1555 / 556-2220
	4.26	Width between reach legs	b4 (mm)	903	903
	4.28	Reach travel	l4 (mm)	704 ³⁾	782 ³⁾
4.32	Ground clearance, centre of wheelbase	m2 (mm)	80	80	
4.33	Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	2787 ³⁾	2896 ³⁾	
4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2823 ³⁾	2915 ³⁾	
4.35	Turning radius	Wa (mm)	1772	1932	
4.37	Length of chassis	l7 (mm)	1942	2102	
Performance	5.1	Travel speed, with/without load	(km/h)	13 / 13; (8 / 11.3) ⁴⁾	13 / 13; (8 / 11.3) ⁴⁾
	5.2	Lifting speed, with/without load	(m/s)	0.33 / 0.55	0.32 / 0.53
	5.3	Lowering speed, with/without load	(m/s)	0.54 / 0.47	0.53 / 0.53
	5.4	Reach speed, with/without load	(m/s)	0.2 / 0.2	0.2 / 0.2
	5.8	Maximum climbing ability, with/without load	(%)	10.0 / 15.0	9.0 / 14.0
	5.9	Acceleration time, with/without load	(s)	5.7 / 5.0	6.2 / 5.2
Drive	5.10	Service brake		electric/mechanic	electric/mechanic
	6.1	Drive motor, 60 minute rating	(kW)	7.2	7.2
	6.2	Lift motor, rating at 53 15%	(kW)	15	15
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / C	43 531 / C
	6.4	Battery voltage/rated capacity (5h)	(V/Ah)	48 / 465	48 / 620
	6.5	Battery weight (± 5%)	(kg)	712	892
Others	8.1	Type of drive control		Electronic/stepless	Electronic/stepless
	8.2	Operating pressure for attachments	(bar)	150	150
	8.3	Oil flow for attachments	(l/min)	25	25
	8.4	Noise level at operator's ear	(dB(A))	59,7	59,7

1) Alternative batteries may alter given dimensions.
2) 1/1 above lift height 6750 mm

3) Including a 200 mm (min.) operating aisle clearance.
4) forward; (backward)



R 20 F mast table											
Lift	h3	4300	4900	5200	5800	6250	6750	7450	7950	8450	
Free lift	h2	1420	1620	1720	1920	2070	2237	2470	2637	2803	
Height of mast, lowered	h1	2150	2350	2450	2650	2800	2967	3200	3367	3533	
Height of mast, extended	h4	5050	5640	5950	6550	7000	7500	8200	8700	9200	

R 25 F mast table													
Lift	h3	4450	4750	5350	5800	6300	7000	7500	8000	8450	8950	9300	9650
Free lift	h2	1620	1720	1920	2070	2237	2470	2637	2803	2953	3120	3237	3353
Height of mast, lowered	h1	2350	2450	2650	2800	2967	3200	3367	3533	3683	3850	3967	4083
Height of mast, extended	h4	5200	5500	6100	6550	7050	7750	8250	8750	9200	9700	10050	10400

Alternative lift heights are available on request.

