



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

Series 8923

### 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 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.



### Reliability

The rugged, compact chassis is designed for maximum strength and durability. A low centre of gravity provides assured stability and high residual capacities for reliable, productive, 24/7 performance and lower operating costs.

### Productivity

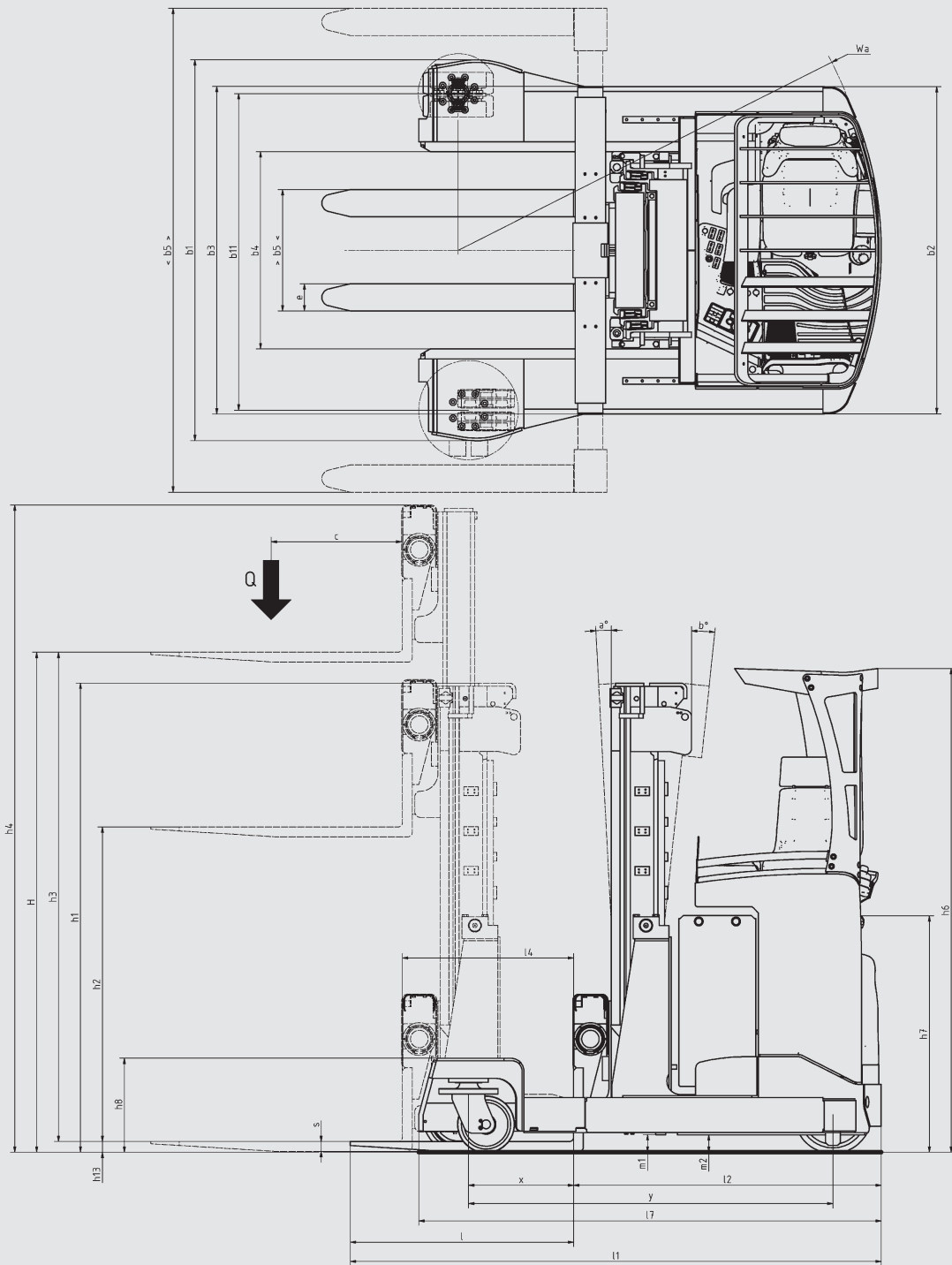
An integrated computer-controlled diagnostic system ensures optimum uptime and reduces costs. Operating parameters can be configured to precisely fit the requirement of the customer's application. The drive wheel and the twin mounted steered load wheels on the right hand side are synchronized to turn through 90° via a fingertip control lever. Individual fingertip lever controls with wrist support. 360° electric power steering

# Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE	
	1.2	Model designation		<b>R20F</b>	<b>R25F</b>	
	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 <sup>1)</sup>	527 <sup>1)</sup>	
	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	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	
3.7		Track width, rear	b11 (mm)	1444	1444	
Dimensions		4.1	Mast/fork carriage tilt, forward/backward	a/b (°)	1.5/3.5   1.0/3.0   1.0/1.0 <sup>2)</sup>	1.5/3.5   1.0/3.0   1.0/1.0 <sup>2)</sup>
	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 <sup>1)</sup>	2555 <sup>1)</sup>	
	4.20	Length to fork face	l2 (mm)	1323 <sup>1)</sup>	1405 <sup>1)</sup>	
	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 <sup>1)</sup>	782 <sup>1)</sup>	
	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 <sup>1)3)</sup>	2896 <sup>1)3)</sup>	
4.34	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	2823 <sup>1)3)</sup>	2915 <sup>1)3)</sup>		
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) <sup>4)</sup>	13 / 13; (8 / 11.3) <sup>4)</sup>	
	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	
	5.10	Service brake		electric/mechanic	electric/mechanic	
	Drive	6.1	Drive motor, 60 minute rating	(kW)	7.2	7.2
		6.2	Lift motor, rating at S3 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	<b>h3</b>	4300	4900	5200	5800	6250	6750	7450	7950	8450
Free lift	<b>h2</b>	1420	1620	1720	1920	2070	2237	2470	2637	2803
Height of mast, lowered	<b>h1</b>	2150	2350	2450	2650	2800	2967	3200	3367	3533
Height of mast, extended	<b>h4</b>	5050	5640	5950	6550	7000	7500	8200	8700	9200

#### R 25 F mast table

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

Alternative lift heights are available on request.

# 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

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.

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