



the power of clean energy



**Z16KN**  
**Z18KN**  
**Z20KNF**  
**Z20HD**  
**Z25HD**

The Carer forklifts range is meant to be a practical response to the demands of handling many application areas. And 'the fruit of attention and listening to our customers who have reserved all these years. We understand however that every activity and every company has its own characteristics that determine its competitive advantage. So we are ready to share your ideas and transform them as quickly as possible in a new logistics solution.

Carer has a wide range of three and four wheels electric forklifts with capacity ranging from 0.8 to 25 t, chosen by careful, demanding and international customers.

Z16-18-20KN and Z20-25HD series trucks provide low running costs, extended autonomy, high performance and excellent visibility. In addition, the turning radius is one of the best in this category. These characteristics make Z16-18-20KN and Z20-25HD series ideal in any work situation; they can perform even the most difficult tasks with ease.

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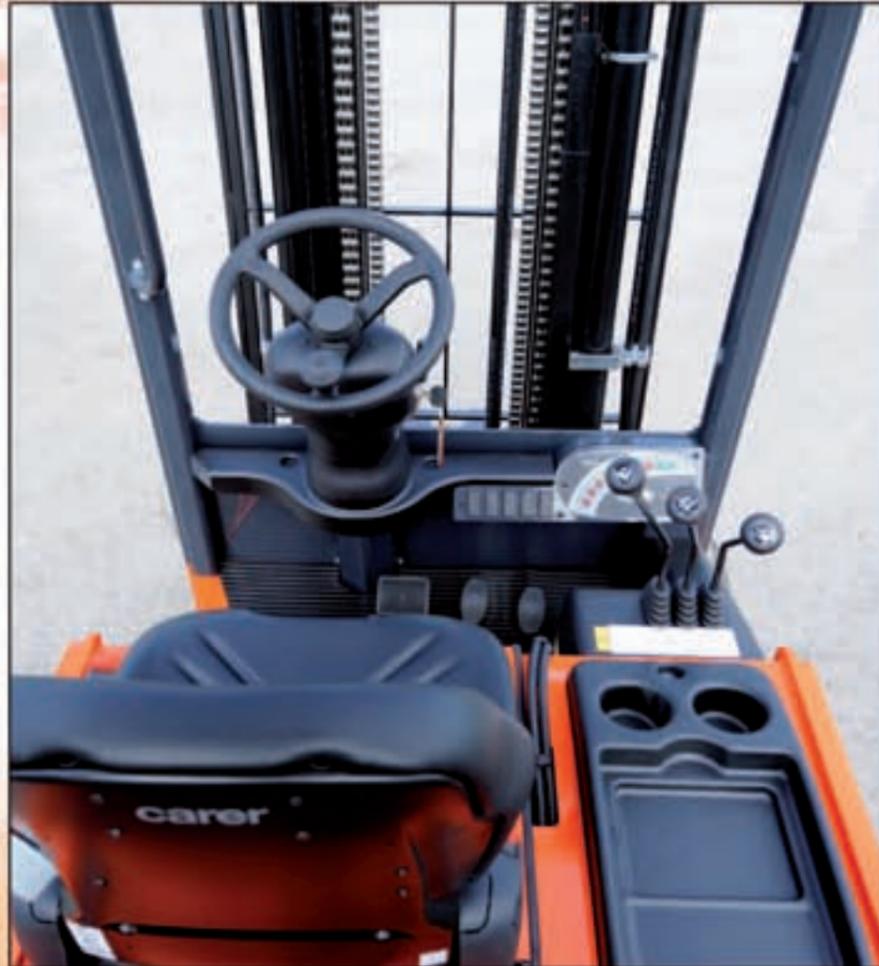


### CONFORT

Driving position is large and offers maximum visibility in every direction. The layout of controls and instruments on board follow the ergonomic dimensioning. The best driving position is easily achieved by adjusting the tilt angle and depth of the steering wheel column and act on the levers which adjust the wide seat. The large cushioned seat is adjustable in every direction and even under the weight of the operator. The armrests are reclining. A large handle with two wide steps provide access to the driver's seat.

### INSTRUMENTATION

Forklift drivers should never be distracted! All details on the functionality of the truck are condensed into a single, comprehensive tool of control "EasyInfo" that consists of a set of warning lights and a display showing the hours worked and the state of battery charge. When the battery reaches the download limit, the Easy Info locks the lifting function.



### ELECTRONICS

All truck functions are managed by sophisticated microprocessor-controlled high frequency MOS electronics and regenerative braking. The chopper is protected against rainwater infiltration and is cooled by apposite fans. Installation facilitates accessibility and maintenance. LED-type self-diagnosis system.



### MOTORS

CARER electric motors stand out for their high efficiency and torque. The electronically dosed power confers to Z series trucks unparalleled acceleration, speed and maneuverability.



### DRIVE

The front differential gear is composed of a double reducer: the first one consists of a bevel gear set instead the second one is directed to the wheels through epicycloidal reducers.

### STEERING AXLE

Z series utilize a tough rear axle that allows obtaining a very high steering angle. The hydraulic jack is installed in a protected position and the kinematic motions are equipped with spherical joints.

### POWER STEERING

The hydro-drive "Load sensing" type optimizes energy consumption and enhances dynamic performances perfectly combining the lightness of the steering wheel with the precision of the guide.

### BRAKING SYSTEM

The braking system is powerful and can be well modulated. The friction material used is asbestos free. The electronic braking energy regeneration occurs by reversing the direction of travel, released and lightly pressing the brake pedal. Constant use of electronic braking also considerably reduces the maintenance costs of the hydraulic braking system.

### MASTS

The lift units allow excellent visibility. The mast profiles are cold treated to provide optimum resistance to bending and twisting. The lift cylinders are external to the profiles. The integrated side shift does not reduce the rated capacity of the truck.



### BATTERY

To increase autonomy of work there are several different batteries of various amperage available. The battery, which can be removed from the vehicle laterally, can be replaced using a hoist or using another forklift. Power rating 80V.

### TYRES

Superelastic tyres are fitted as standard, but cushion type are also available if required.



# ELECTRIC FORKLIFTS

**Z16KN Z18KN Z20KNF Z20HD Z20HDR Z25HD Z25HDR**

SPECIFICATIONS		CARER						
1,1	Manufacturer							
1,2	Model	Z16KN	Z18KN	Z20KNF	Z20HD ; Z20HDR	Z25HD ; Z25HDR		
1,3	Power unit: electric, diesel, L.P.G.	electric						
1,4	Drive: hand operated, on foot, seated operator	seated driver						
1,5	Capacity	Q (t)	1.6	1.8	2.0	2.0	2.5	
1,6	Load centre	C (mm)	500					
1,8	Load distance	X (mm)	400 (1)			440 (1)		
1,9	Wheelbase	Y (mm)	1240				1360	
WEIGHTS								
2,1	Weight	(kg)	3970	4190	4380	4440	4700	
2,2	Axle weight with nominal load front/rear	(kg)	4770/800	5100/890	5435/945	5510/930	6315/885	
2,3	Axle dead weight front/rear	(kg)	2000/1970	1990/2200	1980/2400	2130/2310	2090/2610	
WHEELS AND TYRES			C - SE					
3,1	Tyres type: CU=cushion, SE=superelastic, PN=pneumatic, SEG=twin superel. VLK=vulkollan PNG=twin pneumatic							
3,2	Front wheels dimensions		457x152x308 - 18x7-8		533x203x381 - 21x8-9			
3,3	Rear wheels dimensions		413x127x285.8 - 16x6-8		413x152x285.8 - 16x6-8			
3,5	Wheels: front/rear number (x=drivewheels)		2X/2					
3,6	Front tread	b10 (mm)	820/853		900/958			
3,7	Rear tread	b11 (mm)	826					
4,1	Tilt lifting group, α=forward / β=backward	α/β (°)	5/5					
4,2	Minimum collapsed mast height	h1 (mm)	2205		2425			
4,3	Free lift	h2 (mm)	50					
4,4	Lifting height	h3 (mm)	3250		3550			
4,5	Maximum collapsed mast height	h4 (mm)	3930		4175			
4,7	Height of operator's overhead protection guard	h6 (mm)	2225		2445			
4,8	Seat height	h7 (mm)	1240		1295			
4,12	Towing hook height	h10 (mm)	500		520			
4,19	Overall length	L1 (mm)	3115		3130			
4,20	Length including fork thickness	L2 (mm)	2115		2130			
4,21	Maximum width	b1/b2 (mm)	1000 - 1150					
4,22	Fork dimensions	exsXL (mm)	100x35x1000	130x35x1000	130x35x1000	130x40x1000		
4,23	Fork carriage width iso 2328/30, FEM/A,B		2A					
4,24	Fork carriage width	b3 (mm)	900		900			
4,31	Mast height from ground (braking of load)	m1 (mm)	100		110			
4,32	Centre from ground (braking of load)	m2 (mm)	65 - 90					
4,33	Aisle width with pallet 1000x1200 and 1200 side loading	Ast (mm)	3760		3910			
4,34	Aisle width with pallet 800x1200 and 800 side loading	Ast (mm)	3800		3960			
4,35	Turning radius	Wa (mm)	1720		1830			
4,36	Minimum distance from the truck centre line rotation travel speed	b13 (mm)	565		590			
PERFORMANCE								
5,1	Travel speed, loaded/unloaded	(km/h)	17/18				17/18	
5,2	Lift speed, loaded/unloaded	(m/s)	0.28/0.40	0.26/0.39	0.24/0.39	0.24/0.39 ; 0.45/0.60	0.22/0.39 ; 0.42/0.60	
5,3	Lift descent speed, loaded/unloaded	(m/s)	0.50/0.38					
5,5	Drawbar pull, loaded/unloaded (S2 60°)	(N)	3100/3500	2850/3300	2600/3100	3100/3500	2550/3100	
5,6	Max. drawbar pull, loaded/unloaded (S2 5°)	(N)	3390/3500	3295/3430	5800/6100	5600/6000	5500/5950	
5,7	Surmountable gradient loaded/unloaded (S2 30°)	(%)	13/22	12/21	11/20	13/22	11/20	
5,8	Max. surmountable gradient, loaded/unloaded (S2 5°)	(%)	19/32	18/31	17/30	19/32	17/30	
5,9	Acceleration time	(s)	4.9/4.3	5.0/4.9	5.3/5.0	4.9/4.6	5.0/4.9	
ENGINE / BATT.			hydraulic/electric					
6,1	Drive motor, power (S2 60°)	(kW)	14				14	
6,2	Lift-motor, power (S3 20%)	(kW)	12				12 ; 14	
6,4	Battery voltage	U (V)	80					
6,4,1	Rated capacity	K5 (Ah)	320 (2)	360 (2)	420 (2)	450 (2)		
OTHERS								
6,5	Battery min/max weight	(kg)	900/1300	1000/1300	1100/1300	1200/1600		
8,1	Command type		mosfet					
8,2	Equipment work pressure	(bar)	160					
8,4	Noise level at driver's ear	(dBA)	-					

VDI 2198

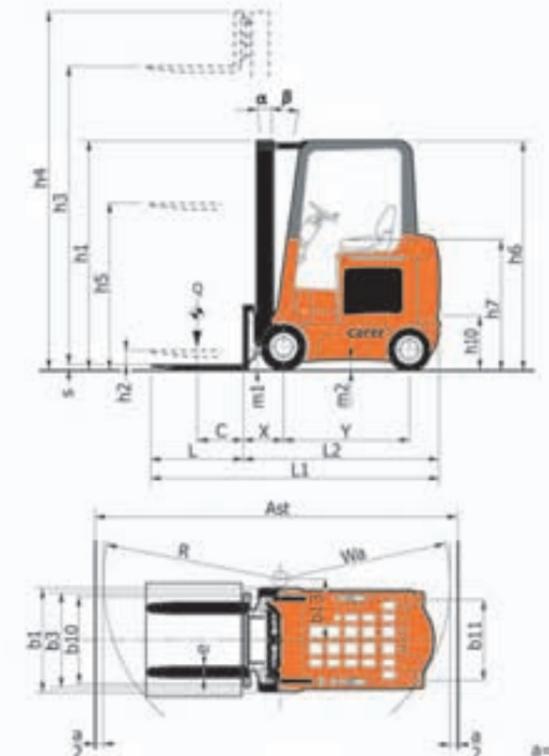
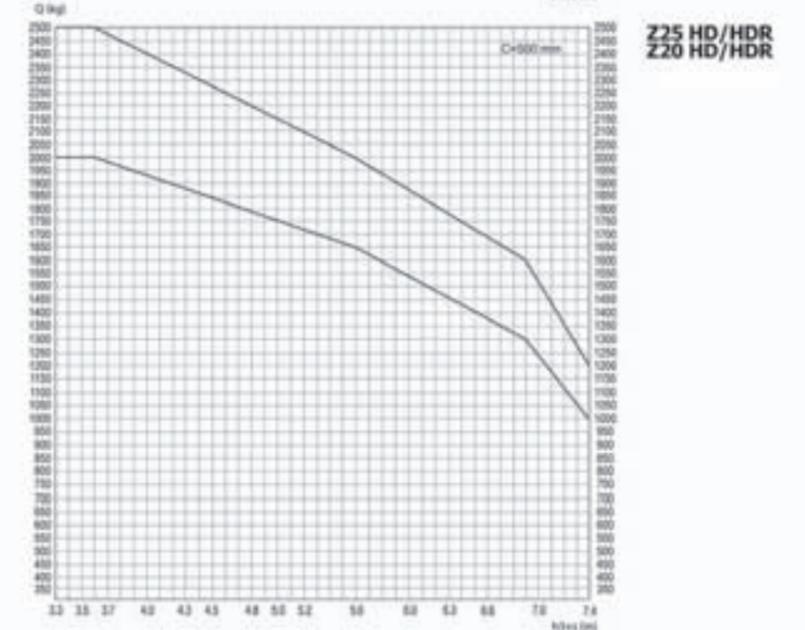
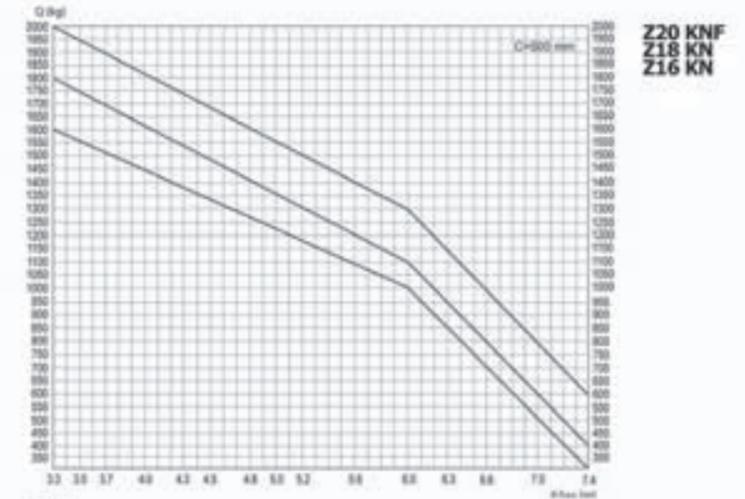
- (1) Integrated side shifter.
- (2) Other capabilities on demand.

The performance data refer to the forklift truck in perfect working order, with battery weighing no less than the minimum indicated, recharged, well preserved and a voltage (closed circuit) not less than the rated capacity.

rev2 07/04/11



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**CARER srl**

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ELECTRONIC FORK LIFT TRUCKS

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