

the power of clean energy



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.

# The exclusive line of quality.

The achievement of an innovative design cannot escape a stylistic study. Though not essential, it is, however, a determining factor in visually infusing the manufacturing approach underlying the design.

CARER has always stood out for the autonomous and innovative personalization of its trucks and has emphasized this quality once again, giving aggressive and straight lines to this new product which is at the top for ensuring safety, designed-in quality and performance.



## COMFORT

Driving position is large and offers maximum visibility in every direction. The layout of controls and instruments on board follow the ergonomic dimensioning. The large cushioned seat is adjustable in every direction and even under the operator weight. Lateral armrests are reclining. Two wide steps facilitate access to driver's compartment. The visibility is perfect in every direction.



# INSTRUMENTATION

Just one glance to have everything under control. Fork-lift drivers should never be distracted! Checking many instruments on the dashboard diverts operator's attention. **CARER** decided to condense into a single, comprehensive tool of control with back lighted LCD all details on the functionality of the truck. The display indicates the on-off status of attachments supplied, the state of battery charge. When the battery reaches the discharge limit, the tool locks the lifting function. Moreover, the display shows also the hours worked.

## **ELECTRONICS**

All truck functions are managed by sophisticated microprocessor-controlled high frequency MOS electronics and regenerative braking. Traction, lifting and power steering control. Energy regeneration on breaking, on releasing the accelerator and on reversing the direction with the possibility to modify the pre-set parameters. Absolute softness and high efficiency featured by the motor-control system assembly. The single panel for easy cleaning and maintenance.













MASTS

The lift units allow excellent visibility. The lift cylinders are external to the profiles. The integrated side shift does not reduce the rated capacity of the truck. The mast profiles are cold treated to provide optimum resistance to bending and twisting, moreover ensuring greater load stability at high lift heights.

# BATTERY

A high number of batteries (80V and 96V) of different amperage are available to increase the working endurance. The battery cover slides on rails and it can be opened without effort.

# MOTORS

Top-class performance in safety! Carer motors are highly efficient and powerful.

They are tested and built used the most advanced technologies. The armatures is vacuum-impregnated with resin.

Armature winding with strap and welding to the commutator are carried out using the copper-on-copper process.

They feature field weakening and H-class insulation.

The absence of sparking on the commutator ensures improved life.

### 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

CARER fork trucks are equipped with a sturdy axle featuring elevated steering angles.

The hydraulic cylinder is in a protected position and utilize the kinematics through ball joints and bearings.

### **POWER STEERING**

To further enhance dynamic qualities, Carer has equipped its trucks with a smooth and accurate steering. The steering system uses a very potent power steering, driven by a dedicated engine, to combine the lightness of the steering wheel with the precision of the guide.

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## **BRAKING SYSTEM**

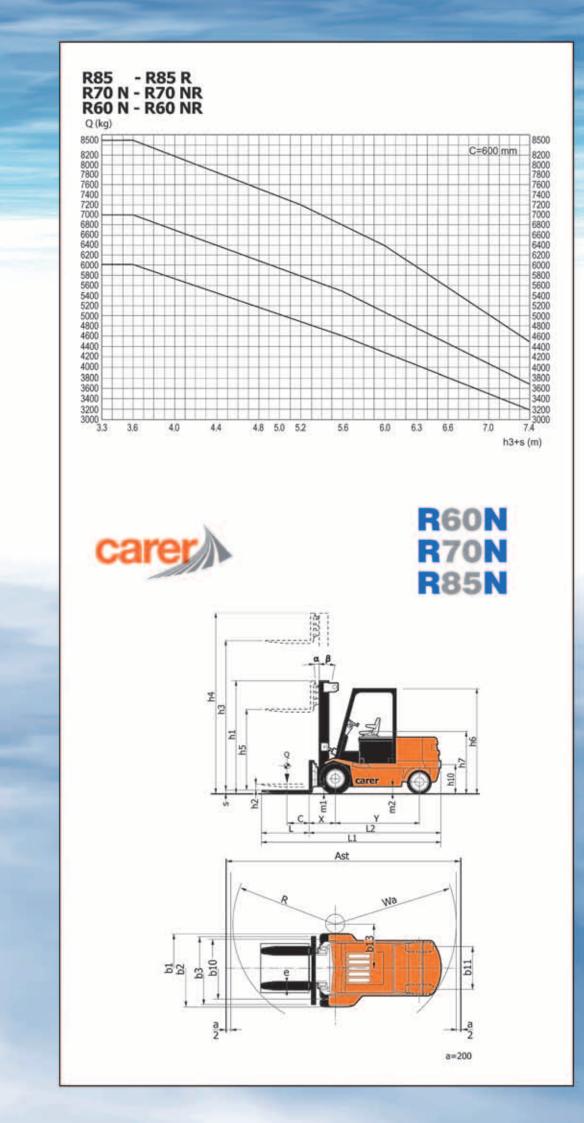
The braking system is powerful and can be well modulated. The friction material used is asbestos free. Regenerative electronic braking can be used at all times with adjustable intensity.

EL	ECT	RIC FORKLIFTS			R60NR	R70NR	R85R	R60N	R70N	R85
SPECIFICATION	1,1	Manufacturer			CARER					
	1,2	Model			R60NR	R70NR	R85R	R60N	R70N	R85
	1,3	Power unit: electric, diesel, L.P.G.					elect	ric		
	1,4	Drive: hand operated, on foot, seated operator			seated driver					
	1,5	Capacity	Q	(t)	6.0	7.0	8.5	6.0	7.0	8.5
	1,6	Load centre	C	(mm)			600	)		
	1,8	Load distance	Х	(mm)	665 (1) 690 (1) 665 (1)					690 (1)
	1,9	Wheelbase	Y	(mm)	2040		2270	2040		2270
WEIGHTS	2,1	Weight		(kg)	9800	11700	12600	9800	11700	12600
	2,2	Axle weight with nominal load front/rear		(kg)	14450/1350	17075/1625	19600/1500	14450/1350	17075/1625	19600/1500
	2,3	Axle dead weight front/rear		(kg)	4700/5100	5700/6000	6250/6350	4700/5100	5700/6000	6250/6350
WHEELS AND TYRES	3,1	Tyres type: CU=cushion, SE=superelastic, PN=pneumatic, SEG=twin superel. VLK=vulkollan PNG=twin pneumatic			C -SE - SEG					
	3,2	Front wheels dimensions			711x356 - 355/65-15 - 8.25-15	711x406 - NO - 8.25-15	780x200 - N0 - 8.25-15	711x356 - 355/65-15 - 8.25-15	711x406 - NO - 8.25-15	780x200 - N0 - 8.25-15
	3,3	Rear wheels dimensions			559x203 -	23x10-12	660x254 - 27x10-12	27x10-12 559x203 - 23x10-12		
	3,5	Wheels: front/rear number (x=drivewheels)					2X/2 (SEC			
	3,6	Front tread	b10	(mm)	1204-1260- 1296	1244-NO-1300	1250-NO-1296	1204-1260- 1296	1244-NO-1300	1250-NO-1290
	3,7	Rear traed	b11	(mm)	10		1025 1055		55	1025
	4,1	Tilt lifting group, $\alpha$ =forward / $\beta$ =backward	α/β	(°)	4/12	4/12 (2) 4/10 (2) 4/12 (2)		2 (2)	4/10 (2)	
	4,2	Minimum collapsed mast height	h1	(mm)	2900		3546	2900		3546
	4,3	Free lift	h2	(mm)	1(	100 0 100		00	0	
	4,4	Lifting height	h3	(mm)	3800 3546		38	3800		
	4,5	Maximum collapsed mast height	h4	(mm)	4790 4546 4790		'90	4546		
	4,7	Height of operator's overhead protection guard	h6	(mm)	2555		2600	2555		2600
	4,8	Seat height	h7	(mm)	1535		1470	1535		1470
DIMENSIONS	4,12	Towing hook height	h10	(mm)	700		650	700		650
	4,19	Overall length	L1	(mm)	4400	4475	4740	4400	4475	4740
	4,20	Length including fork thickness	L2	(mm)	3200	3275	3540	3200	3275	3540
	4,21	Maximum width	b1/b2	(mm)	1560-1560- 1745	1650-NO-1745	1650-NO-1745	1560-1560- 1745	1650-N0-1745	1650-NO-174
	4,22	Fork dimensions	exsxL	(mm)	200x60x1200 200x70x1200 200x60x12		0x1200	200x70x1200		
	4,23	Fork carriage width iso 2328/30, FEM/A,B			4A					
	4,24	Fork carriage width	b3	(mm)	1300 1500		1500	1300 1500		1500
	4,31	Mast height from ground (braking of load)	m1	(mm)	120		180	120		180
PERFORMANCE	4,32	Centre from ground (braking of load)	m2	(mm)	19	90	200	19	90	200
	4,33	Aisle width with pallet 1000x1200 and 1200 side loading	Ast	(mm)	5470	5575	6045	5470	5575	6045
	4,34	Aisle width with pallet 800x1200 and 800 side loading	Ast	(mm)	5480	5580	6045	5480	5580	6045
	4,35	Turning radius	Wa	(mm)	2830	2900	3310	2830	2900	3310
	4,36	Minimum distance from the truck centre line rotation travel speed	b13	(mm)	1180	1225	1285	1180	1225	1285
	5,1	Travel speed, loaded/unloaded		(km/h)	15.5/18	14/16	13/14	13/15	12/14	11/12
	5,2	Lift speed, loaded/unloaded		(m/s)	0.22/0.40	0.21/0.40	0.20/0.36	0.19/0.36	0.18/0.36	0.17/0.32
	5,3	Lift descent speed, loaded/unloaded		(m/s)		0.50/0.40	1		0.50/0.40	1
	5,5	Drawbar pull, loaded/unloaded (S2 60')		(N)	8950/9900	8500/9500	7400/8600	8950/9900	8500/9500	7400/8600
	5,6	Max. drawbar pull, loaded/unloaded (S2 5')		(N)	19550/20500	19100/20100	17000/18200	19550/20500	19100/20100	17000/18200
	5,7	Surmountable gradient loaded/unloaded (S2 30')		(%)	8.0/16	7.0/13	6/11	8.0/16	7,0/13	6/11
	5,8	Max. surmountable gradient, loaded/unloaded (S2 5')		(%)	12/21	10/17	8.0/14	12/21	10/17	8.0/14
	5,9	Acceleration time		(S)	5.5/5.0	6.0/5.5	6.5/6.0	6.0/5.5	6.5/6.0	7.0/6.5
ENGINE / BATT.	5,10	Service brake: mech./hydr./electr.			idraulico/elettrico					
	6,1	Drive motor, power (S2 60')		(kW)		22	18.5			
	6,2	Lift-motor, power (S3 20%)		(kW)			5.2	15	21	
	6,4	Battery voltage	U	(V)		96			80	
	6.4.1	Rated capacity	K5	(Ah)	720 (3)	840 (3)	900 (3)	810 (3)	900 (3)	1150 (3)
	6,5	Battery min/max weight		(kg)	2300/3200	2500/3200	2900/3800	2300/3200	2500/3200	2900/3800
		Command type			mosfet					
ERS	8,1				160					
OTHERS	8,1 8,2	Equipment work pressure		(bar)			160	)		

### VDI 2198

(1) Integrated side shifter. (2) Lifting height > 4.5 m,  $3^{\circ}/7^{\circ}$ . (3) 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 normal one.





### CARER srl

CARRELLI ELEVATORI ELETTRONICI ELECTRONIC FORK LIFT TRUCKS

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