

## Appearance

/ The worldwide popular, great-circle, streamlined surface modeling is applied, with smooth, beautiful, and elegant appearance.

## Stability

/ The broad and solid chassis and steady reach mechanism, as well as the drive unit that is fixed at center, realize low gravity center, and guarantee sufficient stability of the truck.

## Flexibility

/ The driving system that is located at rear part of chassis uses EPS (Electric Power Steering) technology, features low-speed and large torque. The 180-degree steering mode of standard configuration, make the truck flexible and convenient, and allow it turn easily even in confined space.

## Comfort

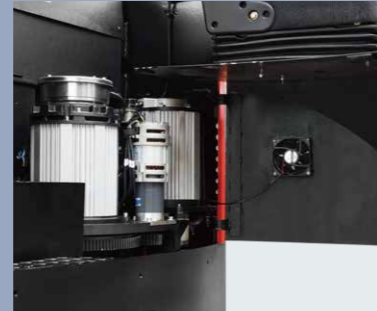
- / Operating levers of ergonomic design, integrated console, all important operating parts are within the reach of your hands.
- / The mast of optimized design with wide view avoids blocking the sight of the operator, and large size of the fork shelf offers wider view.
- / The seat can be adjusted forward and backward, also with the function of vibration reduction.
- / The truck body with increased width and height offers larger operating space for hands and legs of the operator.
- / The new designed overhead guard structure allows the operator to observe the movement of load more clearly.

## Maintenance

- / The fully-opened cover provides easy maintenance for motor, controller and transmission, braking, and hydraulic systems.
- / The battery compartment can be removed forward, so replacement or maintenance is very easy.



Wider view OHG



High-performance motor



Comfortable and convenient seat



Instrument can display the steering angle and direction Synchronously



The steering wheel is extensible, so the operator can choose the best driving position



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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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INNOVATIVE LITHIUM-ION

## A Series Reach Truck

with capacities of 1,200 to 2,000kg

The World of Hangcha



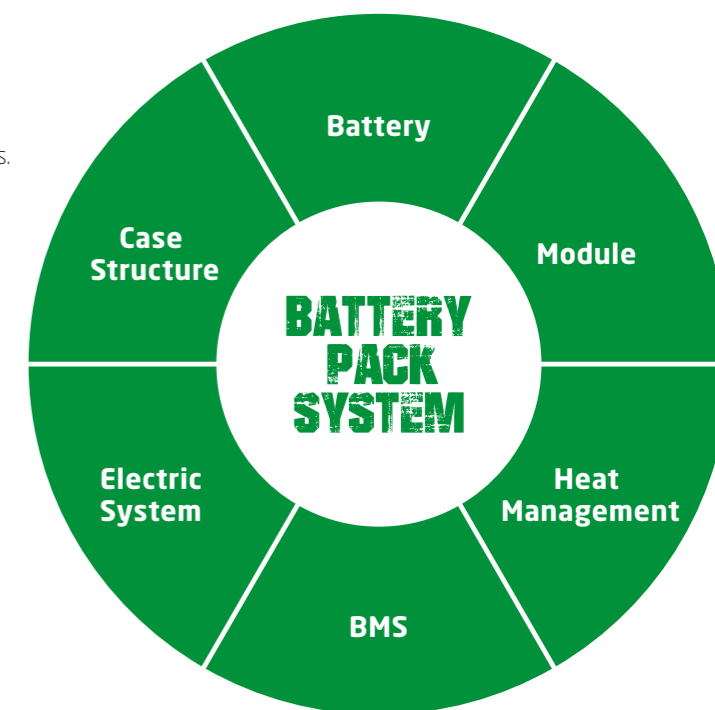
# LET THE LI-IUM POWER BE REEL



## INNOVATIVE SOLUTIONS NEW POWER NOW

Innovative, reliable lithium-ion technology (Lithium Iron-Phosphate), which are developed jointly by HANGCHA and CATL. Battery cells and modules are from CATL, with reliable quality, exclusively for HANGCHA.

- / We use square lithium iron phosphate batteries and modules used in large quantities by commercial vehicles in mature economies.
- / The module uses an aluminum alloy frame which is sturdy, lightweight and with excellent heat dissipation.
- / Safe and effective: Charging efficiency as high as 98%, thermal runaway temperature 600 °C or above.
- / Adapted to low temperatures: Comes standard with an electrical heating feature, ensuring normal operation in low temperatures.
- / Quick charging: Can charge and operate at the same time, fully charged in 2 hours.
- / Long-working: 4000 charging cycles, capacity retention greater than 80%.
- / Maintenance-free: Battery does not require manual maintenance.
- / Green and clean: Pollution-free, zero emissions.



Li-Ion  
2 hours  
100%

Lead-acid batteries  
8-10 hours 100%

**Rapid charging and opportunity charging ensure continuous availability of vehicles.**

Li-Ion powered forklifts are always available. They allow for fast full charging or boost charging (100 % charge in 2 hours). They are maintenance free and do not require a battery change when used for multi-shift operations.

### Li-Ion Battery Pack specification

Type		CQD16-AC4-I	CQD18-AC4-I	CQD20-AC4-I
Li-Ion battery	V/Ah	80/271	80/271	80/271
Titans charger		SLC-80100	SLC-80100	SLC-80100



HANGCHA provides Li-Ion battery (LiFePO4) with 5 years or 10000 hours warranty.



**5 YEARS  
WARRANTY**

## A Series Reach Truck

The reach truck is suitable for working in narrow passageway and confined space, with high lifting and load capacity, and is the ideal tool for loading, unloading, handling, and stacking in warehouse, supermarket, and workshop.

**Environment/  
Efficiency/  
Economy**



## Reliability & Safety

- / Major electrical components such as controller, contactor, and power plug are all of foreign famous brands.
- / As a standard configuration, the emergency power off switch complies with European safety standards.
- / Electronic and hydraulic overload protection, power-failure lock up of fork(optional), and safe pedal.

## Benefits of the AC Power System

- / The AC power system has high efficiency, full protection functions, powerful acceleration performance, sensitive and fast steering.
- / The brushless, maintenance-free AC motor has longer service life, and lower maintenance cost.

## Advance

- / Three-phase AC technology is applied for driving and steering, AC technologies are available for lifting. Full AC power system has higher efficiency, and is free maintenance.
- / The MOSFET integrated controller guarantees smooth and accurate control on driving, steering and lifting, as well as superior speed regulation performance, with regenerative braking, reverse braking, anti-slipping on slope and other functions, resulting in more efficient, safer operations.
- / The LCD battery condition meter, timer, fault self-diagnosis meter, and display can not only display most important operating data, driving direction and location of driving wheels that are interactive with steering, but also realize accurate display in harsh environment.
- / The full AC truck is equipped with non-backlash, high pressure resistant, silent gear pump.
- / The full AC truck is equipped with stepless speed regulation for lifting operation, the mast lift top buffering, mast move forward/backward buffering, travelling speed and speed of mast move forward/backward will slow down automatically when the mast lifting high position, all of this can greatly improve the stability of the truck.
- / The CANBUS communication technology is applied to monitor motor speed, temperature, and other information in real time, realizing closed-loop control.
- / The truck has a triple braking mechanism, i.e. electronic braking (reverse regenerative braking), front wheel hydraulic braking, and electromagnetic parking braking.



## High-performance Mast

- / The operator has wider view in the load direction.
- / Built-in sideshifter and fork tilting are standard configuration.
- / The mast made with imported steel channels and compact structural design has a maximum lifting height: 12500mm.
- / Height monitoring and lifting height limitation system are optional.



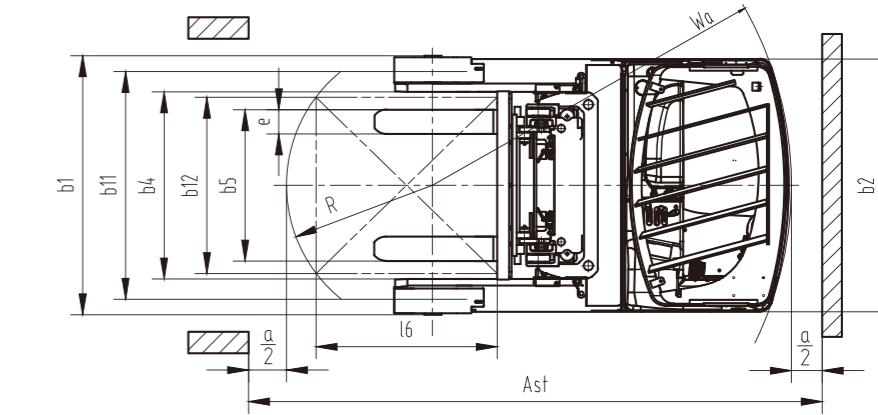
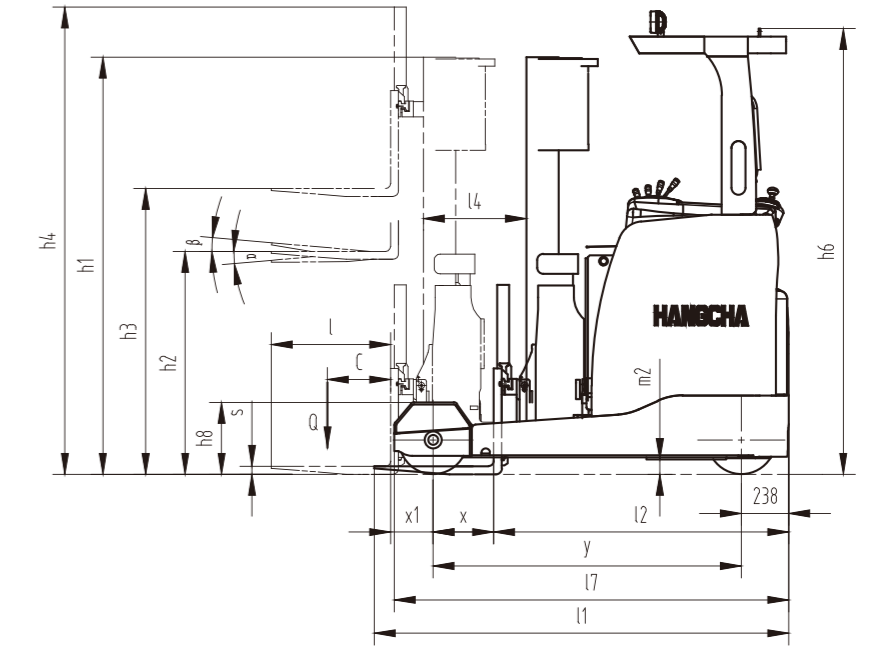


Battery can be removed forward, easy for maintenance

Traction device

## A Series Reach Truck

		HANGCHA GROUP CO.,LTD.						
Distinguishing mark	1.1	Manufacturer						
	1.2	Manufacturer's type designation	CQ012-AC4 CQ014-AD2	CQ014-AC4 CQ014-AD2	CQ016-AC4 CQ016-AD2	CQ018-AC4 CQ018-AD2	CQ020-AC4 CQ020-AD2	
Weight	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	electric					
	1.5	Rated capacity/rated load	Q (kg)	1200	1400	1600	1800	2000
	1.6	Load centre distance	c (mm)	600	600	600	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	325	325	235	235	305
	1.8.1	Load distance, centre of drive axle to fork, mast reached forward	x1 (mm)	183	183	183	213	213
	1.9	Wheelbase	y (mm)	1480	1480	1480	1480	1550
	2.1	Service weight (including battery)	Kg	3130	3130	3320	3330	3340
	Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	polyurethane				
		3.2	Tyre size, front	mm	Ø343×114	Ø343×114	Ø343×114	Ø343×135
3.3		Tyre size, rear ×2	mm	Ø285×100	Ø285×100	Ø285×100	Ø343×108	Ø343×108
3.5		Wheels, number front/rear (= driven wheels)		1x/2	1x/2	1x/2	1x/2	1x/2
3.7		Tread width, rear	b11 (mm)	1136	1136	1136	1144	1144
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	2/4	2/4	2/4	2/4	2/4
	4.2	Height, mast lowered	h1 (mm)	2100	2100	2100	2100	2100
	4.4	Lift	h3 (mm)	3000	3000	3000	3000	3000
	4.7	Height of overhead guard	h6 (mm)	2240	2240	2240	2240	2240
	4.10	Height of support arms	h6 (mm)	305	305	305	361	361
	4.19	Overall length	l1 (mm)	2463	2463	2553	2553	2553
	4.20	Length to face of forks	l2 (mm)	1393	1393	1483	1483	1483
	4.21	Overall width	b1/b2 (mm)	1270/1270	1270/1270	1270/1270	1286/1270	1286/1270
	4.22	Fork dimensions ISO	s/e/l (mm)	40×122×1070	40×122×1070	40×122×1070	40×122×1070	40×122×1070
	4.25	Distance between fork-arms	bs (mm)	244-882	244-882	244-882	244-882	244-882
	4.28	Reach distance	l4 (mm)	508	508	418	448	518
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	2838	2838	2907	2907	2922
4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	2897	2897	2980	2980	2984	
4.35	Turning radius	Wa (mm)	1735	1735	1735	1735	1804	
4.37	Length across wheel arms	l7 (mm)	1883	1883	1883	1913	1983	
Performance data	5.1	Travel speed, laden/unladen	Km/h	10.2/10.2	10.2/10.2	10.2/10.2	10.2/10.2	10.2/10.2
	5.2	Lift speed, laden/unladen	m/s	0.400/0.530	0.390/0.530	0.370/0.530	0.340/0.530	0.310/0.530
	5.3	Lowering speed, laden/unladen	m/s	0.420/0.480	0.420/0.480	0.420/0.480	0.420/0.480	0.420/0.480
	5.8	Max. gradeability, laden/unladen	%	12/15	12/15	11/15	10/15	10/15
	6.1	Drive motor rating S2 60 min	kW	AC 6.5	AC 6.5	AC 6.5	AC 6.5	AC 6.5
Electric engine	6.2	Lift motor rating at S3 15%	kW	AC 12.8	AC 12.8	AC 12.8	AC 12.8	AC 12.8
		Steering motor	kW	AC 0.67	AC 0.67	AC 0.67	AC 0.67	AC 0.67
	6.4	Battery voltage, nominal capacity K5	V/Ah	48/400	48/400	48/500	48/500	48/500
6.5	Battery weight	kg	666	666	855	855	855	
Additional data	8.1	Type of drive control	CURTIS Full AC / INMOTION Full AC					
	10.1	Operating pressure for attachments	bar	140	140	165	185	210
	10.7	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	<75	<75	<75	<75	<70



$$Ast = Wa + R + a = Wa + \sqrt{(l_6 - x)^2 + \left(\frac{b_{12}}{2}\right)^2} + a$$

## Standard Specification

- / PU (polyurethane) driving wheel and load wheels
- / High-capacity battery
- / 4 spools control valves
- / Stepless speed regulation for lifting operation
- / Arm cushion, and impact-proof head cushion
- / 3m duplex mast
- / Adjustable steering wheel
- / Front wheel protection hood
- / Safety pedal
- / 180-degree steering mode
- / Sideshifter
- / Fork tilting (2°/4°)
- / Lift top buffering (Triplex mast)
- / Mast move forward/backward buffering
- / Full AC control
- / Automatic speed reduction when the mast lifting high position (Triplex mast)
- / EPS (Electric Power Steering)
- / Automatic speed reduction at the corner

## Options

- / 2.7-5.0m duplex mast
- / 4.3-12.5m full-free triplex mast
- / Various fork lengths
- / Imported high-performance battery
- / Optional large capacity battery 420Ah, 560Ah
- / Full automatic high-frequency charger
- / Other attachments
- / Height monitoring system
- / Alarm lamp, rear headlamp or other lamps

## 1.2t-2.0t Mast specification

Type	Model	Lifting height h3	Mast lowered h1	Mast extended h4		Free lifting height h2		Tilting range		Load center@600mm				
				Without backrest	With backrest	Without backrest	With backrest	Forward	Backward	1.2t	1.4t	1.6t	1.8t	2.0t
Wide view duplex mast	QA20B	mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	kg	kg	kg
		2700	1950	3355	3665	340	340	2	4	1200	1400	1600	1800	2000
		3000	2100	3655	3965	340	340	2	4	1200	1400	1600	1800	2000
		3300	2250	3955	4265	340	340	2	4	1200	1400	1600	1800	2000
		3500	2350	4155	4465	340	340	2	4	1200	1400	1600	1800	2000
		3600	2400	4255	4565	340	340	2	4	1200	1400	1600	1800	2000
		4000	2650	4655	4965	340	340	2	4	1200	1400	1600	1800	2000
		4300	2790	4955	5265	340	340	2	4	1200	1400	1600	1800	2000
		4500	2900	5155	5465	340	340	2	4	1200	1400	1600	1800	2000
		4800	3095	5495	5765	340	340	2	4	1200	1400	1600	1800	2000
		5000	3195	5695	5965	340	340	2	4	1200	1400	1600	1800	2000
		Full free triplex mast	QA20V (imported steel)	4300	2085	4987	5265	1376	1120	2	4	1200	1400	1600
4500	2165			5170	5465	1495	1200	2	4	1200	1400	1600	1800	2000
4800	2265			5470	5765	1595	1300	2	4	1200	1400	1600	1800	2000
5000	2315			5670	5965	1596	1350	2	4	1200	1400	1600	1800	2000
5500	2490			6170	6465	1796	1525	2	4	1200	1400	1600	1800	2000
6000	2665			6670	6965	1995	1700	2	4	1200	1400	1600	1800	2000
6500	2835			7170	7465	2136	1870	2	4	1200	1300	1500	1700	1900
7000	3020			7670	7965	2350	2055	2	4	1200	1200	1400	1600	1800
7500	3180			8170	8465	2510	2215	2	4	1100	1100	1300	1500	1700
8000	3350			8670	8965	2680	2385	2	4	1000	1000	1200	1400	1600
8500	3580			9170	9465	2910	2615	2	4	900	900	1100	1300	1500
9000	3800			9670	9965	3130	2835	2	4	800	800	1000	1200	1400
9500	3970			10170	10465	3300	3005	2	4	700	700	900	1100	1300
10000	4100			10670	10965	3430	3135	2	4	600	600	800	1000	1200
10500	4250			11170	11465	3580	3285	2	4	500	500	700	900	1100
11000	4450			11670	11965	3780	3485	2	4	400	400	600	800	1000
11500	4700			12170	12465	4030	3735	2	4	250	250	450	600	850
12000	4900			12670	12965	4230	3935	2	4	100	100	300	500	700
12500	5150	13170	13465	4480	4185	2	4	\	\	150	350	550		

