



# X Series Electric Forklift Truck

with capacities of 4,000 to 5,000kg



**ZHEJIANG HANGCHA IMP. & EXP. CO., LTD.**

**Factory site:** 666 Xiangfu Road, Hangzhou, Zhejiang, China (311305)

Tel: +86-571-88926735 88926755  
 Fax: +86-571-88926789 88132890

sales@hcforklift.com  
 www.hcforklift.com



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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform to the European Safety Requirements.

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*The World of Hangcha*





## Exterior

- / A new exterior design method is used to form a stylish and elegant exterior with streamlined curved surfaces and smooth ethereal lines.
- / The vehicle is compact, simple and sturdy in appearance.
- / A fully enclosed console space.
- / Fully open side door.

## Stability

- / The drive motor is arranged in parallel, the battery is placed at the bottom of the vehicle frame, the wheelbase and rear wheel pitch are increased, the swing point of the steering axle is raised, and the distance between the front of the fork and the front axle is reduced, to enable excellent stability.

## Comfort

- / In accordance with the ergonomically design, the wheelbase is increased to enable enlarged leg space. The radius of the hand wheel is reduced to 300mm and the seat can be adjusted backwards and forwards, so that the operator can choose the best driving position.
- / The dashboard, tilt cylinder and flat bottom panel are designed to be fully enclosed to enable more comfortable and safer operations.
- / The multifunctional color-screen instruments have clear human-computer interfaces displaying clear readings.
- / Personalized design: increased storage space, USB port, etc.

## Safety

- / The optimized design of the wide-view mast, wide-view overhead guard and low dashboard enables a broader view of the operator and higher safety.
- / The LED headlights and combination lights enable the operator to have a good view in various circumstances.
- / The all-round vision rearview mirror provides a broader rear view and higher driving safety.
- / The intelligent sensing enables buffered descending. When the fork is 100 - 60mm away from the ground, the descending will automatically slow down, so that the goods and pallet will not hit the ground and the goods and ground can be protected effectively.
- / The electronic and hydraulic overload protection devices comply with safety regulations.
- / An optional OPS safety system is provided.



## High speed, high efficiency

- / With increased turning angle and small turning radii of the inner and outer steering wheels, the vehicle can operate in narrow aisles.
- / With several speed gears, the vehicle is adapted to different operating environments.
- / With a high-power driving motor and a high speed ratio gearbox, a large-tonnage 5t vehicle, for example, can have its maximum driving speed increased to 16.5km/h and maximum full-load upslope degree increased by up to 15%.
- / A high-power oil pump motor and a large-displacement silent pump are used to significantly improve the lifting speed. A large-tonnage 5t vehicle, for example, can have its maximum full-load lifting speed increased to 310mm/s.
- / With reduced distance between the front of the fork and the front axle and other new stability-enhancing technologies, the load capacity of the attachments and high-lift mast of the forklift is significantly improved.
- / A new compact design concept is adopted to reduce the width of the vehicle.
- / Light weight and low driving power consumption. The brake kinetic energy regeneration system effectively saves on electric power and improves the use time after a single charge.

## Advancement

- / The high-frequency MOSFET integrated controller ensures smooth and accurate driving and lifting control, and has excellent speed regulation performance, good performance of electronic control matching the motor, functions of regenerative braking, reverse braking and anti-sliding on ramps, etc., and high safety and reliability.
- / The branded multifunctional color-screen instruments have the functions of battery display, timer and fault diagnosis and can accurately display information under harsh environments.
- / The branded AC controller enables the forklift's driving, steering, lifting, tilting and other actions to be controlled by a computer.
- / Regenerative braking (when stopping, slowing down, reversing or driving down a ramp, etc., being energy-saving and efficient, the forklift can have its drive motor working as a power generator to charge the battery through the controller.)
- / The main electrical components such as the motor controller, contactor, power plug and emergency cut-off switch are all branded high-quality products.

## Maintainability

- / The fully opened hood quite facilitates the maintenance of the battery, oil pump motor and electric control assembly.
- / The foot panel can be dismantled without a tool and facilitates the overhaul and maintenance of the driving motor and various systems.
- / The brake fluid can be added after the shroud cap and the oil tank cap are opened.
- / An optional laterally-dismounted battery is provided to enable quick replacement of the battery.

## Battery Specification

Battery	Capacity (Ah/5h)	4t	4.5t	mini5t	5t
Lead-acid	600	●			
	700	○	●	●	●
	775	○	○	○	○
Lithium	542	●	●	●	●
	606	○	○	○	○

Note: ● Battery Std; ○ Battery Opt;

## Options

- / Super-elastic solid tire
- / Seamless solid tire
- / Triple and quadruple multiway valves
- / Alarm light
- / Rear LED operation light
- / Blue light
- / Rear reversing armrest horn button
- / Large-capacity battery
- / PVC ceiling
- / Battery charger
- / Chair sensing system
- / Electro-hydraulic proportional valve, thumb switch
- / Video monitoring system
- / Fully-suspended seat
- / Fully enclosed cab
- / Left and right rear view mirrors
- / Free duplex mast
- / Free triplex mast
- / Built-in side shift fork
- / Forks of other lengths
- / Widened fork carriage
- / Other attachments
- / Battery removed sideways

## Standard specification

- / AC electric control motor
- / Emergency power off switch
- / Multifunctional color-screen instruments
- / Pneumatic tire
- / Mechanical handbrake
- / Two-way multi-way valve
- / Rubber pedal pads of all sizes
- / 3 m duplex wide-field-of-view mast
- / Vehicle LED lights
- / Panoramic rear view mirror
- / Fully hydraulic power steering
- / Angle-adjustable steering column
- / Horn, reversing buzzer
- / Tool box, folder
- / Silent gear pump
- / Intelligent descending buffering device
- / Traction pin



## Mast Specification

Type	Max. fork height	Lowered	Overall height		Free lift		Tilt range		Capacity		
			With backrest	Without backrest	With backrest	Without backrest	F	R	load capacity at 600mm Single tire		
			mm	mm	mm	mm	mm	mm	(°)	(°)	4t
STD Duplex	3000	2400	4170	3920	150	150	5	10	4990		
	3300	2500	4370	4120	150	150	5	10	4990		
	3700	2825	4870	4675	150	150	5	10	4990		
	4000	2975	5170	4975	150	150	5	6	4990		
	4500	3300	5670	5550	150	150	5	6	4990		
	5000	3550	6170	6050	150	150	5	6	4990		
	5500	3800	6670	6550	150	150	5	6	4950		
Full Free Lift	3000	2400	4170	3900	1230	1500	5	10	4990		
	3300	2500	4470	4150	1330	1650	5	10	4990		
	3700	2600	4870	4450	1430	1850	5	10	4990		
	4000	2825	5170	4825	1655	2000	5	10	4990		
Triplex	4300	2250	5470	5050	1080	1500	5	6	4990		
	4500	2315	5670	5245	1145	1570	5	6	4990		
	4700	2415	5870	5445	1245	1570	5	6	4970		
	5000	2500	6170	5800	1330	1700	5	6	4890		
	5500	2700	6670	6400	1530	1800	5	6	4750		
	6000	2975	7170	6975	1805	2000	5	6	4610		
	6500	3175	7670	7475	2005	2200	5	6	3850		

## Mast Specification

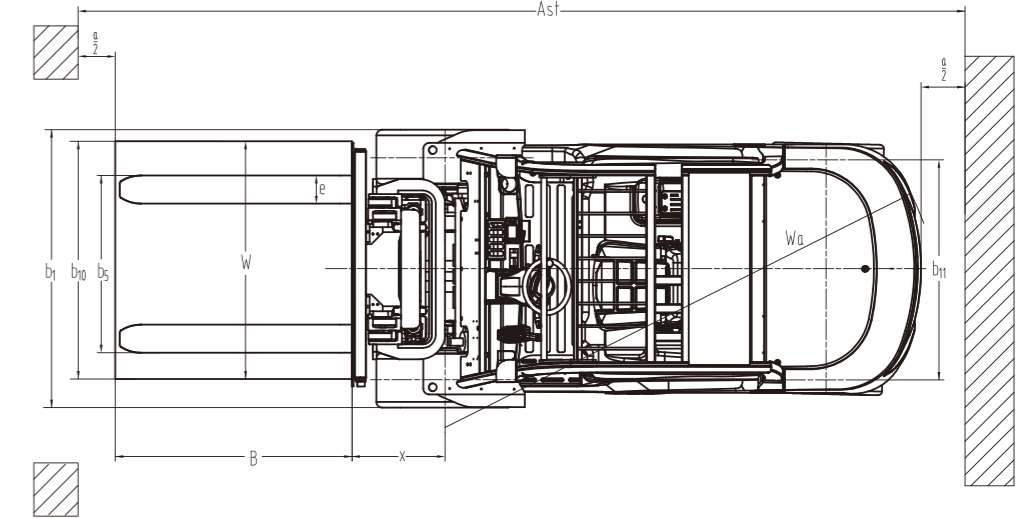
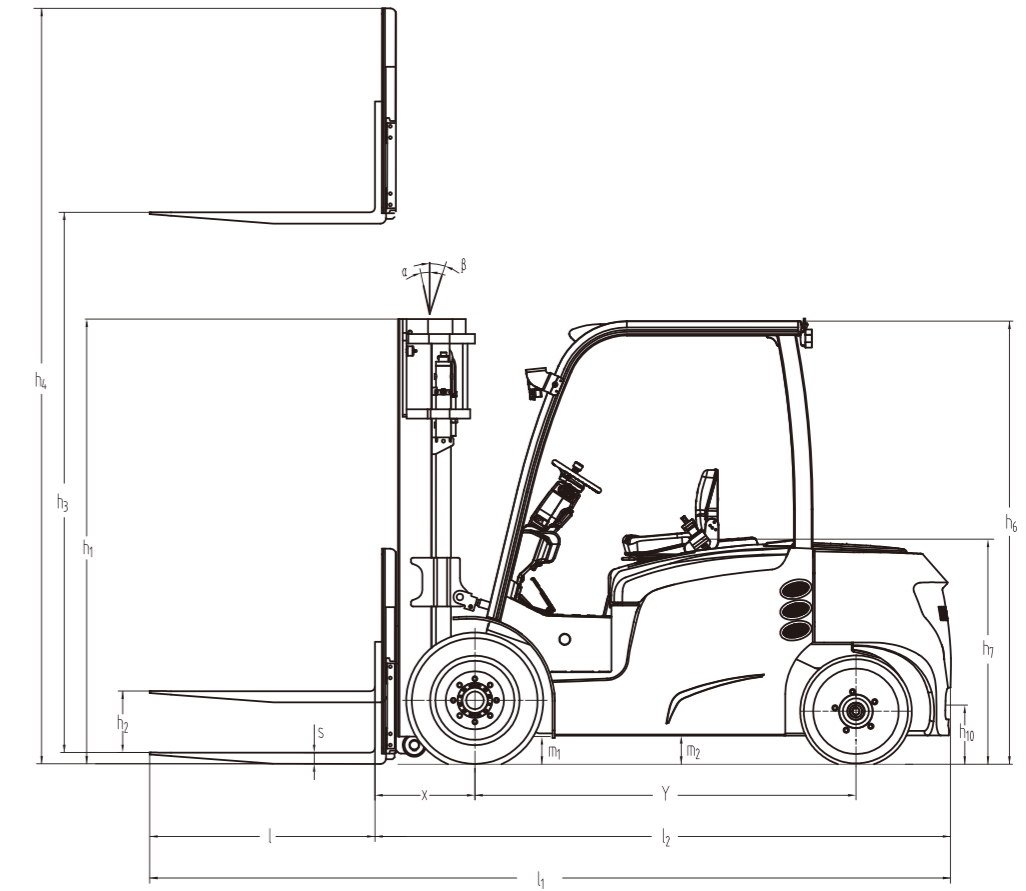
Type	Max. fork height	Lowered	Overall height		Free lift		Tilt range		Capacity		
			With backrest	Without backrest	With backrest	Without backrest	F	R	load capacity at 500mm Single tire		
			mm	mm	mm	mm	mm	mm	(°)	(°)	4t
STD Duplex	3000	2250	4170	3790	150	150	5	10	4000	4500	4990
	3300	2400	4470	4090	150	150	5	10	4000	4500	4990
	3700	2600	4870	4490	150	150	5	10	4000	4500	4990
	4000	2825	5170	4825	150	150	5	10	4000	4500	4990
	4500	3075	5670	5325	150	150	5	6	4000	4500	4990
	5000	3400	6170	5900	150	150	5	6	4000	4500	4990
	5500	3650	6670	6400	150	150	5	6	3950	4450	4950
Full Free Lift	3000	2250	4170	3750	1080	1500	5	10	4000	4500	4990
	3300	2400	4470	4050	1230	1650	5	10	4000	4500	4990
	3700	2600	4870	4450	1430	1800	5	10	4000	4500	4990
	4000	2825	5170	4825	1655	2000	5	10	4000	4500	4990
Triplex	4250	2180	5420	5040	1010	1430	5	6	4000	4500	4990
	4500	2250	5670	5250	1080	1500	5	6	4000	4500	4990
	4700	2315	5870	5445	1145	1570	5	6	4000	4500	4990
	5000	2450	6170	5850	1280	1600	5	6	4000	4470	4850
	5500	2600	6670	6300	1430	1800	5	6	3850	4340	4800
	6000	2825	7170	6825	1655	2000	5	6	3710	4210	4650
	6500	3075	7670	7375	1905	2200	5	6	3400	3650	4300

Note:With load backrest: Height of standard load backrest is 1200 mm.



## X Series 4.0-5.0t Electric Forklift Specification

Distinguishing mark	HANGCHA GROUP CO.,LTD.								
	CPD40-XC4	CPD45-XC4	CPD50-XXC4	CPD50-XC4	CPD40-XC4-I	CPD45-XC4-I	CPD50-XXC4-I	CPD50-XC4-I	
1.1	Manufacturer								
1.2	Manufacturer's type designation								
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated
1.5	Rated capacity/rated load	Q (kg)	4000	4500	4990	4990	4000	4500	4990
1.6	Load centre distance	c (mm)	500	500	500	600	500	500	600
1.8	Load distance, centre of drive axle to fork	x (mm)	520	520	520	530	520	520	530
1.9	Wheelbase	y (mm)	2030	2030	2030	2030	2030	2030	2030
2.1	Service Weight	kg	6560	6970	7210	7470	5790	6030	6290
2.2	Axle loading, laden front/rear	kg	9410/1150	10260/1210	10980/1230	11090/1380	8730/1060	9450/1080	10060/1230
2.3	Axle loading, unladen front/rear	kg	3360/3200	3450/3520	3420/3790	3270/4200	2680/3110	2650/3380	2500/3790
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
3.2	Tyre size, front		250-15	250-15	28*12.5-15	28*12.5-15	250-15	250-15	28*12.5-15
3.3	Tyre size, rear		21*8-9	21*8-9	23*9-10	23*9-10	23*9-10	23*9-10	23*9-10
3.5	Wheels, number front / rear (x = driven wheels)		2x/2	2x/2	2x/2	2x/2	2x/2	2x/2	2x/2
3.6	Tread, front	b10 (mm)	1150	1150	1166	1182	1150	1150	1182
3.7	Tread, rear	b11 (mm)	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5
4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	5/10	5/10	5/10	5/10	5/10	5/10	5/10
4.2	Height, mast lowered	h1 (mm)	2375	2375	2375	2375	2375	2375	2375
4.3	Free lift	h2 (mm)	150	150	150	150	150	150	150
4.4	Lift	h3 (mm)	3000	3000	3000	3000	3000	3000	3000
4.5	Height, mast extended	h4 (mm)	4118	4118	4118	4118	4118	4118	4118
4.7	Height of overhead guard (cabin)	h6 (mm)	2360	2360	2360	2360	2360	2360	2360
4.8	Seat height/stand height	h7 (mm)	1080	1080	1080	1080	1080	1080	1080
4.1.2	Coupling height	h10 (mm)	320	320	320	320	320	320	320
4.1.9	Overall length	l1 (mm)	3980	4060	4060	4275	4060	4060	4135
4.2.0	Length to face of forks	l2 (mm)	2910	2990	2990	3075	2990	2990	3065
4.2.1	Overall width	b1 (mm)	1385	1385	1494	1494	1385	1385	1494
4.2.2	Fork dimensions	s/e/l (mm)	50/150/1070	50/150/1070	50/150/1070	60/150/1200	50/150/1070	50/150/1070	60/150/1200
4.2.3	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 3A
4.2.4	Fork-carriage width	b2 (mm)	1200	1200	1200	1200	1200	1200	1200
4.2.5	Distance between fork-arms	b3 (mm)	310-1150	310-1150	310-1150	310-1150	310-1150	310-1150	310-1150
4.3.1	Ground clearance, laden, below mast	m1 (mm)	150	150	150	150	150	150	150
4.3.2	Ground clearance, centre of wheelbase	m2 (mm)	152	152	152	152	152	152	152
4.3.4.1	Aisle width for pallets 1000 x 1220 crossways	Aa1 (mm)	4260	4320	4320	4410	4320	4320	4340
4.3.4.2	Aisle width for pallets 1200*1000 lengthways	Aa2 (mm)	4460	4520	4520	4610	4520	4520	4540
4.3.5	Turning radius	Wa (mm)	2540	2600	2600	2680	2600	2600	2620
5.1	Travel speed, laden/unladen	km/h	16.5/16.5	16/16.5	16/16.5	15.5/16.5	16.5/16.5	16/16.5	16/16.5
5.2	Lift speed, laden/unladen	m/s	0.33/0.475	0.33/0.475	0.31/0.475	0.31/0.475	0.33/0.475	0.33/0.475	0.31/0.475
5.3	Lowering speed, laden/unladen	m/s	0.48/0.43	0.48/0.44	0.48/0.44	0.5/0.4	0.48/0.43	0.48/0.44	0.5/0.4
5.6	Max. Drawbar pull	N	21000	21000	21000	21000	21000	21000	21000
5.8	Max. gradeability, laden/unladen	%	17/20	16/20	16/20	15/19	17/20	16/20	15/19
5.1.0	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
6.1	Drive motor rating S2 60 min	kW	18	18	20	20	18	18	20
6.2	Lift motor rating at S3 15%	kW	25.4	25.4	25.4	25.4	25.4	25.4	25.4
6.3	Battery acc. to DIN 43531/35/36 A,B,C, no		no	no	no	no	no	no	no
6.4	Battery voltage, nominal capacity K5	V/Ah	80/600	80/700	80/700	80/700	80.5/542	80.5/542	80.5/542
6.5	Battery weight	kg	1530	1777	1777	1777	502	502	502
	Battery dimensions	l/b/h(mm)	1028*855*784			1026*709*782			
	Max. battery weight	kg	1999	1999	1999	1999	527	527	527
	Min. battery weight	kg	1425	1688	1688	1688	477	477	477
8.1	Type of drive unit		MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC
9.1	Manufacturer/Type		CURTIS	CURTIS	CURTIS	CURTIS	CURTIS	CURTIS	CURTIS
10.1	Operating pressure for attachments	bar	185	185	200	200	185	185	200
10.2	Oil volume for attachments	l/min	76	76	76	76	76	76	76
10.3	Hydraulic Tank - capacity (drain & refill)	liter	40	40	40	40	40	40	40
10.7	Sound pressure level at the driver's seat	dB (A)	76	76	76	76	76	76	76
10.8	Towing coupling, type DIN 15170		Φ35 Pin	Φ35 Pin	Φ35 Pin	Φ35 Pin	Φ35 Pin	Φ35 Pin	Φ35 Pin



Aa1-B\*x+Wa+a B: Length of load or forks which is longer a=200mm safety clearance

RATED CAPACITY AND LOAD DIAGRAM

