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ISO 45001
ISO 45001:2018



ISO 14001
ISO 14001:2015



ISO 9001
ISO 9001:2015



HANGCHA trucks conform
to the European Safety
Requirements.

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X Series Electric Forklift Truck

with capacities of 4,000 to 5,000kg

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 dismounted 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	○	○	○	○
CATL Lithium	604	●	●	●	●
	906	○	○	○	○
Hangcha Lithium	560	○	○	○	○
	608	○	○	○	○
	840	○	○	○	○

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
- / Tool box, folder

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
- / Silent gear pump
- / Intelligent descending buffering device
- / Traction pin



Mast Specification

Type	Max. fork height	Lowered	Overall height		Free lift		Tilt range		Capacity load capacity at 600mm Single tire 5t kg
			With backrest	Without backrest	With backrest	Without backrest	F	R	
			mm	mm	mm	mm	(°)	(°)	
STD Duplex	mm	mm	mm	mm	mm	mm			
	2700	2250	3930	3600	160	160	5	10	5000
	3000	2350	4230	3873	160	160	5	10	5000
	3300	2500	4530	4173	160	160	5	10	5000
	3700	2825	4930	4675	160	160	5	10	5000
	4000	2975	5230	4975	160	160	5	10	5000
	4500	3300	5730	5550	160	160	5	6	5000
	5000	3550	6230	6050	160	160	5	6	5000
	5500	3800	6730	6550	160	160	5	6	4950
	6000	4050	7230	7050	160	160	5	6	4600
Full Free Lift	2800	2250	4030	3648	1020	1402	5	10	5000
	3000	2350	4230	3850	1120	1502	5	10	5000
	3300	2500	4530	4150	1270	1652	5	10	5000
	3700	2700	4930	4550	1470	1852	5	10	5000
	4000	2925	5230	4925	1695	2077	5	10	5000
Triplex	4050	2180	5280	4898	950	1332	5	6	5000
	4300	2250	5530	5148	1020	1402	5	6	5000
	4500	2315	5730	5348	1085	1467	5	6	5000
	4700	2415	5930	5548	1185	1567	5	6	4970
	5000	2500	6230	5848	1270	1652	5	6	4890
	5500	2850	6730	6550	1620	2002	5	6	4750
	6000	3125	7230	7125	1895	2277	5	6	4610
	6500	3325	7730	7625	2095	2477	3	6	3850
	7000	3450	8230	8230	2220	2602	3	6	3600

Mast Specification

Type	Max. fork height	Lowered	Overall height		Free lift		Tilt range		Capacity load capacity at 500mm Single tire		
			With backrest	Without backrest	With backrest	Without backrest	F	R	4t kg		
			mm	mm	mm	mm	(°)	(°)	5t kg		
STD Duplex	mm	mm	mm	mm	mm	mm					
	2650	2075	3820	3443	150	150	5	10	4000	4500	4990
	3000	2250	4170	3793	150	150	5	10	4000	4500	4990
	3300	2400	4470	4093	150	150	5	10	4000	4500	4990
	3700	2600	4870	4493	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
	6000	3900	7170	6900	150	150	5	6	3700	4200	4600
Full Free Lift	2650	2075	3820	3419	905	1306	5	10	4000	4500	4990
	3000	2250	4170	3769	1080	1481	5	10	4000	4500	4990
	3300	2400	4470	4069	1230	1631	5	10	4000	4500	4990
	3700	2600	4870	4469	1430	1831	5	10	4000	4500	4990
	4000	2825	5170	4825	1655	2056	5	10	4000	4500	4990
Triplex	4300	2180	5470	5074	1010	1406	5	6	4000	4500	4990
	4500	2250	5670	5274	1080	1476	5	6	4000	4500	4990
	4700	2315	5870	5615	1145	1541	5	6	4000	4500	4990
	5000	2450	6170	5850	1280	1676	5	6	4000	4470	4850
	5500	2600	6670	6300	1430	1826	5	6	3850	4340	4700
	6000	2825	7170	6825	1655	2051	5	6	3710	4210	4550
	6500	3075	7670	7274	1905	2301	5	6	3400	3650	3900
	7000	3300	8170	7774	2130	2526	3	6	2800	3000	3200

Note:With load backrest; Height of standard load backrest is 1092 mm.

Model	Pneumatic tyres and dimensions spec.					Solid tyres and dimensions spec.				
	Tyre size, front		Tyre size, rear		Tread, front(b10)	Overall width(b1)	Tyre size, front		Tyre size, rear	Tread, front(b10)
CPD40-45	250-15-18PR(single tyre)	●	23×9-10-18PR	●	1150	1385	250-15(single tyre)	○	23×9-10	○
	7.00-15-14PR(dual tyre)	●	23×9-10-18PR	●	1304	1744	7.00-15(dual tyre)	○	23×9-10	○
CPD50X-50	28×12.5-15-24PR(single tyre)	●	23×9-10-18PR	●	1182	1494	28×12.5-15(single tyre)	○	23×9-10	○
	7.00-15-14PR(dual tyre)	○	23×9-10-18PR	●	1343	1783	7.00-15(dual tyre)	○	23×9-10	○

Note: ● Std. ○ Opt;

X Series 4.0-5.0t Electric Forklift Specification

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.								
	1.2	Manufacturer's type designation		CPD40-XC5* CPD40-XD3*	CPD45-XC5* CPD45-XD3*	CPD50-XXC5* CPD50-XXD3*	CPD50-XC5* CPD50-XD3*	CPD40-XC5-1* CPD40-XD3-1*	CPD45-XC5-1* CPD45-XD3-1*	CPD50-XXC5-1* CPD50-XXD3-1*	CPD50-XC5-1* CPD50-XD3-1*	
	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	5000	4000	4500	4990	5000	
	1.6	Load centre distance	c (mm)	500	500	500	600	500	500	500	600	
	1.8	Load distance, centre of drive axle to fork	x (mm)	520	520	520	530	520	520	520	530	
	1.9	Wheelbase	y (mm)	2030	2030	2030	2030	2030	2030	2030	2030	
	Weight	2.1	Service Weight	kg	6560	6970	7210	7470	5790	6030	6290	6750
		2.2	Axle loading, laden front/rear	kg	9410/1150	10260/1210	10980/1230	11090/1380	8730/1060	9450/1080	10060/1230	10430/1320
2.3		Axle loading, unladen front/rear	kg	3360/3200	3450/3520	3420/3790	3270/4200	2680/3110	2650/3380	2500/3790	2610/4140	
Tyres, chassis	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	28*12.5-15	
	3.3	Tyre size, rear		23*9-10	23*9-10	23*9-10	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	2x/2	
	3.6	Tread, front	b10 (mm)	1150	1150	1182	1182	1150	1150	1182	1182	
	3.7	Tread, rear	b11 (mm)	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	
Dimensions	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	5/10	
	4.2	Height, mast lowered	h1 (mm)	2250	2250	2250	2350	2250	2250	2250	2350	
	4.3	Free lift	h2 (mm)	150	150	150	160	150	150	150	160	
	4.4	Lift	h3 (mm)	3000	3000	3000	3000	3000	3000	3000	3000	
	4.5	Height, mast extended	h4 (mm)	4170	4170	4170	4230	4170	4170	4170	4230	
	4.7	Height of overhead guard	h6 (mm)	2360	2360	2360	2360	2360	2360	2360	2360	
	4.8	Seat height/stand height	h7 (mm)	1080	1080	1080	1080	1080	1080	1080	1080	
	4.12	Coupling height	h10 (mm)	320	320	320	320	320	320	320	320	
	4.19	Overall length	l1 (mm)	3980	4060	4060	4275	4060	4060	4135	4275	
	4.20	Length to face of forks	l2 (mm)	2910	2990	2990	3075	2990	2990	3065	3075	
	4.21	Overall width	b1 (mm)	1385	1385	1494	1494	1385	1385	1494	1494	
	4.22	Fork dimensions	s/e/l (mm)	50/122/1070	50/150/1070	50/150/1070	60/150/1200	50/122/1070	50/150/1070	50/150/1070	60/150/1200	
	4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 4A	ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 4A	
	4.24	Fork-carriage width	b3 (mm)	1250	1250	1250	1250	1250	1250	1250	1250	
	4.25	Distance between fork-arms	b5 (mm)	244-1250	300-1250	300-1250	300-1250	244-1250	300-1250	300-1250	300-1250	
	4.31	Ground clearance, laden, below mast	m1 (mm)	150	150	150	150	150	150	150	150	
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	152	152	152	152	152	152	152	152	
	4.34.1	Aisle width for pallets 1000 x 1220 crossways	Aa1 (mm)	4260	4320	4320	4410	4320	4320	4340	4410	
	4.34.2	Aisle width for pallets 1200*1000 lengthways	Aa2 (mm)	4460	4520	4520	4610	4520	4520	4540	4610	
4.35	Turning radius	Wa (mm)	2540	2600	2600	2680	2600	2600	2620	2680		
Performance data	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	15.5/16.5	
	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	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	0.48/0.44	0.5/0.4	
	5.6	Max. Drawbar pull	N	21000	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	16/20	15/19	
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	
	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical		
Electric-engine	6.1	Drive motor rating S2 60 min	kW	18	18	20	20	18	18	20	20	
	6.2	Lift motor rating at S3 15%	kW	25.4	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	no	
	6.4	Battery voltage, nominal capacity K5	V/Ah	80/600	80/700	80/700	80/700	80/604	80/604	80/604	80/604	
	6.5	Battery weight	kg	1500	1770	1770	1770	500	500	500	500	
		Battery dimensions	l/b/h(mm)	1028*855*784				1026*709*782				
		Max. battery weight	kg	1990	1990	1990	1990	530	530	530	530	
	Min. battery weight	kg	1430	1690	1690	1690	500	500	500	500		
	8.1	Type of drive unit		MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	
	9.1	Manufacturer/Type		CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	CURTIS IMOTION	
Addition data	10.1	Operating pressure for attachments	bar	185	185	200	200	185	185	200	200	
	10.2	Oil volume for attachments	l/min	76	76	76	76	76	76	76	76	
	10.3	Hydraulic Tank - capacity (drain & refill)	liter	40	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	76	
	10.8	Towing coupling, type DIN 15170		φ35 Pin	φ35 Pin	φ35 Pin	φ35 Pin	φ35 Pin	φ35 Pin	φ35 Pin	φ35 Pin	