

$As1 = l6 + x + w + a$      $l6$ : Load Length     $a$ : Clearance (7.9inch)



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# X Series Electric Pneumatic Tire Forklift Truck

with capacities of 4,000 to 7,000lbs

**Making Material Handling Easier**  
 SINCE 1956



# X Series Electric Pneumatic Tire Forklift

The X Series Electric Pneumatic Tire Forklifts, with a load capacity of 4,000-7,000lbs are a new generation of electric pneumatic forklifts from Hangcha Group. These forklifts take design cues from our rugged IC pneumatic line of forklifts to provide the same durability with an electric powered chassis. The durable X Series Electric Pneumatic Tire Forklifts also provides operators with the performance, efficiency, comfort, and safety needed to effectively operate in North American operational environments.

Efficient  
Flexible  
Agile



## Appearance

/ The X Series Electric Pneumatic Forklift is designed to be small and flexible while still maintaining a lifting capacity of up to 7,000lbs. This design allows it to be used in narrow aisle applications. The exterior of this forklift is powder coated in a durable, easy to see, red finish.

## Stability

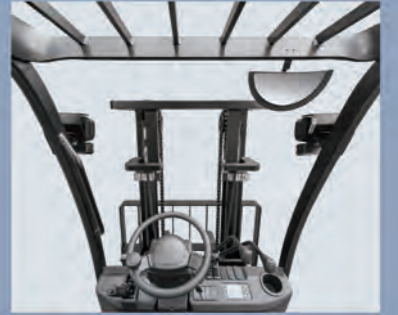
/ When designing the X Series forklifts, engineers decided to enhance the swing point of steering axle and shorten front overhang distance by arranging the travel motors in parallel, fixing the batteries at the bottom of the forklift's frame, and lengthening the distance between the shaft rear-wheel. Ultimately this was all done to provide excellent stability when operating the forklift.

## Efficiency

- / Engineers increased the inner and outer turning angle of the steering wheels to decrease the forklift's turning radius and allow for it to operate in narrow applications.
- / The controller provides multiple speed modes to allow the forklift to adapt to various working conditions.
- / The forklift features a high-power traction motor and high speed gearbox. Because of this, the maximum travel speed and climbing gradient under full load have been increased to 10.3mph and 20% respectively.
- / The forklift features a low noise, high-power pump motor with a large discharge capacity to promote lifting speed. This allows the forklift's maximum lifting speed to be 16.5 inches per second with a 3300lb full load.
- / The compact design of the X Series forklift allows for efficient use in narrow applications. For example, the width of 4,000-5,000lbs truck is only 46.5".
- / The light weight and low energy consumption design, combined with the brake energy regeneration system, effectively saves energy and increases the time the forklift can operate on a single charge.

## Comfort

- / Designed based on ergonomics, the longer wheelbase provides more leg room, the steering wheel's diameter is reduced to 11.8", and the seats can be adjusted forward and backward. This was all done to allow operator to be able to find their most comfortable driving position.
- / Storage space and a USB port have also been added to increase operator comfort.



The mast and the steel overhead guard provide great visibility and help to reduce the risk of accidents.



Fully closed operation plate space, tilting cylinder and flat bottom plate, providing more comfortable and safe operation



The optional battery side roll out provides a fast, simple, and safe solution for the operator when they need to change out the battery.



The multi-function instrument display clearly displays vital information when operating the forklift and is placed in an easy-to-see location for the operator.



## Standard Features

- / 118" Limited Free Lift 2 Stage Mast
- / Soft Landing System
- / Overhead Guard
- / Storage Compartment
- / Emergency Cut-Off Switch
- / USB Interface
- / AC Motor and Controller
- / Multi-Function Instrument Display
- / 2nd Valve
- / Dynamic Load Sensing Hydraulic Steering Gear
- / Panoramic Rearview Mirror
- / Integrated Combination Switch
- / DC-DC converter
- / Front and Rear LED Combination Lights
- / Tow Pin
- / Back-Up Alarm
- / Operator Presence Sensing System (OPS)



## Safety

- / Highly efficient LED headlights and rear LED combination lights increased the operators visibility in different working environments
- / The panoramic rearview mirror provides greater rear visibility for safer operation.
- / Soft Landing System: When forks are between 3.9-2.4" above the ground, the descending speed decreases automatically. This is done to keep the goods and pallet from hitting the ground and to protect both goods and the ground.
- / The overload protection device for the electronic and hydraulic systems conform to safety specifications.

## Maintenance

- / The maintenance hatch underneath the operator's feet can be disassembled without tools. This allows for convenient checking and repairs of the motors and electronic systems.
- / Brake fluid can easily be added without tools thanks to its convenient location in the dash.
- / The maintenance hatches can easily be fully opened and are quite convenient when performing battery maintenance.

## Advancement

- / The MOSFET integrated control system provides accurate control of traveling, fork movement, and adjusting the performance of the motors. The forklift will also not roll back on a ramp thanks to the controller.
- / The controller, connectors, battery plug, and emergency switch are all parts from industry known suppliers to ensure reliability, performance, and ease of service.
- The forklift's regenerative braking provides more energy savings and efficiency when the forklift decelerates and drives on a downwards slope.

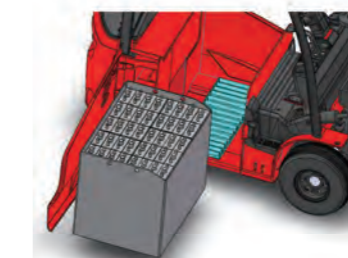
## Options

- / 78.7-196.9" Limited Free Lift 2 Stage Mast
- / 98.4-157.5" Full Free Lift 2 Stage Mast
- / 169.3-275.6" Full Free Lift 3 Stage Mast
- / Various Fork Lengths
- / Wide Fork Carriage
- / Wider or Higher Load Backrest
- / Sideshifter
- / Various Accessories
- / Dual Front Tires
- / Solid Pneumatic Tires
- / Non-Marking Tires
- / Full Suspension Seat
- / Reverse Grip with Horn
- / Left & Right Rearview Mirror
- / Rear Working Light
- / Battery Removal System using Forks
- / Battery Side Roll Out
- / High Capacity Battery
- / Charger
- / Fingertip Control System

## Battery Specification

Battery	Capacity (Ah/5h)	4000lb 48V	5000lb 48V	5000lb-6000lb 80V	7000lb 80V
Lead-acid	360				
	420				
	480			●	●
	525	●			
	560	○		○	○
	600	○	●	○	○
	700	○	○		

● Standard Battery ○ Optional Battery



Optional Battery Side Roll Out



Optional Battery Removal System using Forks



Optional Fingertip Control System

# X Series Electric Pneumatic Tire Forklift Truck Specification

Distinguishing Marks	HANGCHA GROUP CO.,LTD.									
	1.1 Manufacturer		FB20X		FB25X		FB30X		FB35X	
	HCGA Model		CPD25-XC4		CPD25-XC4		CPD30-XC4		CPD35-XC4	
1.2	Manufacturer's Type Designation		CPD25-XC4		CPD25-XC4		CPD30-XC4		CPD35-XC4	
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		Electric		Electric		Electric		Electric	
1.4	Operator Type: hand, pedestrian, standing, seated, order-picker		Rider Seated		Rider Seated		Rider Seated		Rider Seated	
1.5	Rated Capacity/Rated Load		4000(2270)		5000(2270)		6000(2720)		7000(3175)	
1.6	Load Centre Distance		c 24(600)		24(600)		24(600)		24(600)	
1.8	Load Distance, Centre of Drive Axle to Fork		x in(mm) 16.8(427)		16.8(427)		17.9(454)		18.5(469)	
1.9	Wheelbase		y in(mm) 59.8(1520)		59.8(1520)		65.4(1660)		65.4(1660)	
2.1	Service Weight		lb (kg) 8047(3650)		9326(4200)		10384(4710)		11685(5300)	
2.2	Axle Loading, laden front/rear		lb (kg) 10913(4950)/1543(700)		12820(5815)/1731(785)		15168(6880)/1830(830)		17295(7855)/2083(945)	
2.3	Axle Loading, unladen front/rear		lb (kg) 3792(1720)/4255(1930)		4001(1815)/5038(2285)		4586(2080)/4740(2150)		4883(2215)/6801(3085)	
3.1	Tires: Solid rubber, Pneumatic, Pneumatic-shaped cushion		Pneumatic		Pneumatic		Pneumatic		Pneumatic-Shaped Cushion	
3.2	Tire Size, front		23×9-10-18PR		23×9-10-18PR		23×9-10-18PR		23×10-12	
3.3	Tire Size, rear		18×7-8-14PR		18×7-8-14PR		18×7-8-14PR		200/50-10	
3.5	Wheels, number front / rear (x = driven wheels)		2x2		2x2		2x2		2x2	
3.6	Tread, front		b10 in (mm) 37.8(960)		39.8(1010)		39.8(1010)		39.8(1012)	
3.7	Tread, rear		b11 in (mm) 38.6(980)		38.6(980)		38.6(980)		38.6(980)	
4.1	Tilt of Mast/Fork Carriage Forward/Backward		α/β (°) 6/10		6/10		6/10		6/10	
4.2	Height, mast lowered		h1 in (mm) 79.2(2011)		79.2(2011)		79.2(2011)		85.1(2161)	
4.3	Free Lift		h2 in (mm) 5.5(140)		5.5(140)		5.3(135)		5.3(135)	
4.4	Lift		h3 in (mm) 118.1(3000)		118.1(3000)		118.1(3000)		118.1(3000)	
4.5	Height, mast extended		h4 in (mm) 159.3(4046)		159.3(4046)		163.2(4145)		163.2(4145)	
4.6	Height of Overhead Guard (standard cabin)		h5 in (mm) 85.0(2160)		85.0(2160)		85.0(2160)		85.0(2160)	
4.7	Height of Overhead Guard (height cabin)		h6 in (mm) 88.2(2240)		88.2(2240)		88.2(2240)		88.2(2240)	
4.8	Seat Height/Stand Height		h7 in (mm) 42.1(1070)		42.1(1070)		42.1(1070)		42.1(1070)	
4.12	Coupling Height		h10 in (mm) 12.2(311)		12.2(311)		12.2(311)		12.2(311)	
4.19	Overall Length		l1 in (mm) 132.5(3365)		138(3505)		140.0(3557)		143.6(3647)	
4.20	Length to Face of Forks		l2 in (mm) 90.4(2295)		92.4(2347)		97.9(2487)		101.5(2577)	
4.21	Overall Width		b1 in (mm) 46.7(1185)		46.7(1185)		48.6(1235)		49.6(1260)	
4.22	Fork Dimensions		s×e×l in (mm) 1.6×4.8×42.1(40×122×1070)		1.6×4.8×42.1(40×122×1070)		1.6×4.9×42.1(45×125×1070)		2.0×4.9×42.1(50×125×1070)	
4.23	Fork Carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 2A		ISO 2328 2A		ISO 2328 3A		ISO 2328 3A	
4.24	Fork-Carriage Width		b3 in (mm) 39.7(1008)		39.7(1008)		42.6(1082)		42.6(1082)	
4.25	Distance between Fork-Arms		b5 in (mm) 8.9-39.7(226-1008)		8.9-39.7(226-1008)		9.9-42.6(252-1082)		9.9-42.6(252-1082)	
4.31	Ground Clearance, laden, below mast		m1 in (mm) 4.3(110)		4.2(106)		4.2(106)		4.2(106)	
4.32	Ground Clearance, centre of wheelbase		m2 in (mm) 4.7(120)		4.7(120)		4.7(120)		4.9(125)	
4.34.1	Aisle Width for Pallets 39"×47" Crossways		Ast in (mm) 142.4(3617)		145(3682)		151.5(3849)		153.5(3899)	
4.34.2	Aisle Width for Pallets 31.5"×47" Lengthways		Ast in (mm) 150.3(3817)		152.8(3882)		159.4(4049)		161.4(4099)	
4.35	Turning Radius		Wa in (mm) 84.6(2148)		80.9(2055)		86.4(2195)		87.8(2230)	
5.1	Travel Speed, laden/unladen		mph (km/h) 10.6(17)/11.2(18)		10.3(16.5)/10.9(17.5)		10.3(16.5)/10.9(17.5)		8.7(14)/9.3(15)	
5.2	Lift Speed, laden/unladen		fpm (m/s) 71(0.36)/118(0.60)		67(0.34)/118(0.60)		63(0.32)/108(0.55)		59(0.30)/89(0.45)	
5.3	Lowering Speed, laden/unladen		fpm (m/s) 89(0.45)/98(0.50)		89(0.45)/98(0.50)		93(0.47)/93(0.47)		93(0.47)/93(0.47)	
5.6	Max. Drawbar Pull, laden/unladen		lbf(N) 3282(14600)/2383(10600)		3282(14600)/2592(11530)		4676(20800)/3912(17400)		4676(20800)/4137(18400)	
5.8	Max. Gradeability, laden/unladen		%		20/20		20/20		17/19	
5.10	Service Brake		Hydraulic		Hydraulic		Hydraulic		Hydraulic	
	Parking Brake		Mechanical		Mechanical		Mechanical		Mechanical	
6.1	Drive Motor Rating S2 60 min		HP (kW) 24.1(18)		24.1(18)		24.1(18)		24.1(18)	
6.2	Lift Motor Rating at S3 15%		HP (kW) 24.1(18)		24.1(18)		24.1(18)		24.1(18)	
6.3	Battery acc. to DIN 43531/35/36 A,B,C, no		No		No		No		No	
6.4	Battery Voltage, nominal capacity K5		V/Ah 48/525		48/600		80/480		80/480	
6.5	Battery Weight		lb (kg) 1845(837)		2019(916)		2723(1235)		2723(1235)	
	Battery Dimensions		l×b×h in (mm) 40.5×22.5×30.9(1028×571×784)		40.5×22.5×30.9(1028×571×784)		40.5×28×30.9(1028×571×784)		40.5×28×30.9(1028×571×784)	
	Max. Battery Weight		lb (kg) 1845(837)		2019(916)		2723(1235)		2723(1235)	
	Min. Battery Weight		lb (kg) 2454(1113)		2465(1118)		3325(1508)		3325(1508)	
8.1	Controller Brand		MOSFET/AC		MOSFET/AC		MOSFET/AC		MOSFET/AC	
10.1	Operating Pressure for Attachments		psi (bar) 2320(160)		2320(160)		2320(160)		2320(160)	
10.2	Oil Volume for Attachments		US gal/(min)(l/min) 17.2(65)		17.2(65)		17.2(65)		17.2(65)	
10.3	Hydraulic Tank - Capacity (drain & refill)		US gal(liter) 7.93(30)		7.93(30)		7.93(30)		7.93(30)	
10.7	Sound Pressure Level at the Driver's Seat		dB (A) 70		70		70		70	
10.8	Towing Coupling, type DIN 15170		in (mm) Φ0.95(Φ24) Pin		Φ0.95(Φ24) Pin		Φ0.95(Φ24) Pin		Φ0.95(Φ24) Pin	

# 4000-5000lb Mast

Type	Model	Lifting Height	Lowered Overall Height	Overall Height		Free Lifting Height		Tilting Range		Load Capacity		
				With Backrest	Without Backrest	With Backrest	Without Backrest	Forward	Backward	Load Capacity at 24 in (600 mm)		
				in	in	in	in	in	in	in	in	in
Limited Free Lift 2 Stage Mast	M250	98.4	69.3	139.6	123.7	5.5	5.5	6	6	4000	5000	5000
	M270	106.3	73.3	147.5	131.6	5.5	5.5	6	6	4000	5000	5000
	M300	118.1	79.2	159.3	143.4	5.5	5.5	6	10	4000	5000	5000
	M330	129.9	85.1	171.1	155.2	5.5	5.5	6	10	4000	5000	5000
	M350	137.8	89.0	179.0	163.1	5.5	5.5	6	10	4000	5000	5000
	M360	141.7	93.0	182.9	167.0	5.5	5.5	6	10	4000	5000	5000
	M400	157.5	102.8	198.7	182.8	5.5	5.5	6	10	4000	5000	5000
	M430	169.3	108.7	210.5	194.6	5.5	5.5	6	6	3880	4776	5000
	M450	177.2	112.6	218.3	202.5	5.5	5.5	6	6	3781	4577	5000
	Full Free Lift 2 Stage Mast	U250	98.4	69.3	139.6	124.5	28.1	43.2	6	6	4000	5000
U270		106.3	73.3	147.5	132.4	32.1	47.2	6	6	4000	5000	5000
U300		118.1	79.2	159.3	144.2	38.0	53.1	6	10	4000	5000	5000
U330		129.9	85.1	171.1	156.0	43.9	59.0	6	10	4000	5000	5000
U360		141.7	91.0	182.9	167.8	49.8	64.9	6	10	4000	5000	5000
U400		157.5	100.8	198.7	183.6	59.6	74.7	6	10	4000	5000	5000
N430		169.3	79.2	210.5	195.4	38.0	53.1	6	6	3681	4577	5000
N450		177.2	81.1	218.3	203.3	40.0	55.0	6	6	3582	4079	4577
N480		189.0	85.1	230.2	215.1	43.9	59.0	6	6	3482	4000	4079
N500		196.9	88.0	238.0	223.0	46.9	61.9	6	6	3084	3283	4000
Full Free Lift 3 Stage Mast	N550	216.5	94.9	257.7	242.5	53.7	68.9	3	6	2388	2487	3283
	N600	236.2	102.8	277.4	262.3	61.6	76.7	3	6	1791	1980	2487
	N650	255.9	112.6	297.1	282.0	71.5	86.5	3	6	1194	1691	1990

With integral sideshifter, subtract 220lbs (100kg).

# 6000-7000lb Mast

Type	Model	Lifting Height	Lowered Overall Height	Overall Height				Free Lifting Height				Tilting Range		Load Capacity		
				With Backrest	Without Backrest	With Backrest	Without Backrest	With Backrest	Without Backrest	Without Backrest	Forward	Backward	Load Capacity at 24 in (600 mm)			
				6000lb	7000lb	6000lb	7000lb	6000lb	7000lb	6000lb	7000lb	in	in	6000lb	7000lb	
Limited Free Lift 2 Stage Mast	M250	98.4	69.3	75.2	143.5	143.5	125.1	129.0	5.3	5.3	5.7	5.7	6	6	6000	7000
	M270	106.3	73.3	79.2	151.4	151.4	133.0	136.9	5.3	5.3	5.7	5.7	6	6	6000	7000
	M300	118.1	79.2	85.1	163.2	163.2	145.2	148.7	5.3	5.3	5.7	5.7	6	10	6000	7000
	M330	129.9	85.1	91.0	175.0	175.0	156.6	160.5	5.3	5.3	5.7	5.7	6	10	6000	7000
	M350	137.8	89.0	94.9	182.9	182.9	164.4	168.4	5.3	5.3	5.7	5.7	6	10	6000	7000
	M360	141.7	93.0	96.9	186.8	186.8	168.4	172.3	5.3	5.3	5.7	5.7	6	10	6000	7000
	M400	157.5	102.8	108.7	202.6	202.6	184.1	188.1	5.3	5.3	5.7	5.7	6	10	6000	7000
	M430	169.3	108.7	114.6	214.4	214.4	195.9	199.9	5.3	5.3	5.7	5.7	6	6	5787	7000
	M450	177.2	112.6	118.5	222.2	222.2	203.8	207.8	5.3	5.3	5.7	5.7	6	6	5688	6890
	M480	189.0	118.5	124.4	234.1	234.1	215.6	219.6	5.3	5.3	5.7	5.7	6	6	5181	6790
Full Free Lift 2 Stage Mast	M500	196.9	122.5	128.4	241.9	241.9	223.5	227.4	5.3	5.3	5.7	5.7	6	6	4696	6690
	U250	98.4	71.3	75.8	143.5	143.5	127.0	130.6	26.2	30.7	42.7	43.7	6	6	6000	7000
	U270	106.3	75.2	79.8	151.4	151.4	134.9	138.4	30.2	34.7	46.7	47.6	6	6	6000	