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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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## X Series Electric Forklift Truck

with capacities of 6,000 to 10,000kg

*The World of Hangcha*



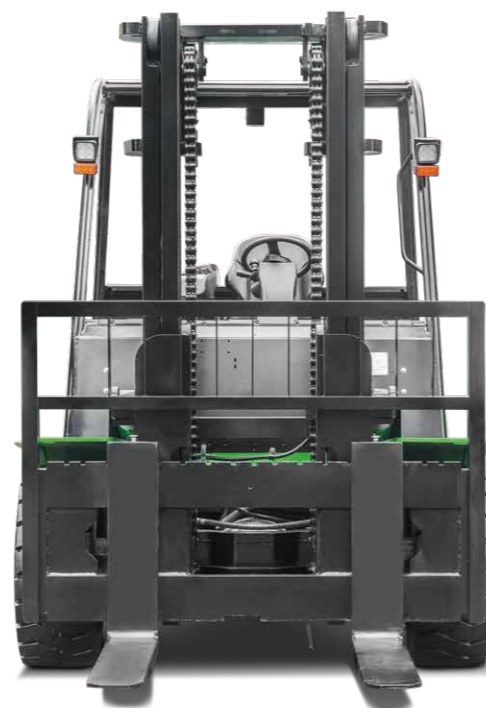


## Exterior

- / 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.

## Stability

- / Small-diameter solid tires, front and rear battery sets and other technologies are used to enable excellent stability of the vehicle.



## Comfort

- / The inclination angle of the ergonomically designed hand wheel is adjustable and the seat can be adjusted 150mm forwards and backwards, so that the operator can choose the best driving position.
- / Two independent hydraulic systems for steering braking and hydraulic lifting respectively are used to ensure the steering braking performance and the combined operations to be carried out.
- / 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: overlarge storage bin, 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.

## Maintainability

- / The fully open front and rear battery lids easily facilitate battery maintenance.
- / The innovative two-door structure with one door, respectively, on the left and right sides of the forklift easily facilitates the maintenance of the motor, oil pump and electric control of the forklift and enables good resistance to dust and water.
- / 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.





## 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.

## High speed, high efficiency

- / With several speed gears, the vehicle is adapted to different operating environments.
- / With a high-power driving motor and a high speed ratio gearbox, an 8t vehicle, for example, can have its maximum full-load driving speed increased to 14.5km/h and maximum full-load upslope degree increased by up to 14%.
- / A high-power oil pump motor and a large-displacement silent pump are used to significantly improve the lifting speed. An 8t vehicle, for example, can have its maximum full-load lifting speed increased to 300mm/s.
- / 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.



## Options

- / 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
- / Forks of other lengths
- / Heightened or widened fork carriage
- / Other attachments
- / Double front wheels
- / Battery removed sideways

## Standard specification

- / AC electric control motor
- / Emergency power off switch
- / Multifunctional color-screen instruments
- / Super-elastic solid tire
- / 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
- / Large tool box, folder
- / Intelligent descending buffering device
- / Traction pin
- / Silent gear pump

## Battery Specification

Battery	Capacity (Ah/5h)	6t	7t	8t	8t Long wheelbase	9t	10t
Lead-acid	720	●					
	810	○	●				
	945	○	○	●	●		
	1035		○	○			
	1104				○	●	
	1260				○	○	●
CATL Lithium	1380				○	○	○
	542	●	●	●			
	606	○	○	○	●	●	●
	813	○	○	○	○	○	○

Note: ● Battery Std. ○ Battery Opt;

## 6.0-8.0t tyre options

Model	Solid tyres and dimensions spec.				Pneumatic tyres and dimensions spec.						
	Tyre size, front	Tyre size, rear	Tread, front	Overall width	Tyre size, front	Tyre size, rear	Tread, front	Overall width			
CPD60	355/65-15(single tyre)	●	250-15	●	1574	1870	355/65-15-24PR(single tyre)	250-15-18PR	○	1574	1940
	8.25-15(dual tyre)	○	250-15	●	1489	1970	8.25-15-14PR(dual tyre)	250-15-18PR	○	1489	2000
CPD70	355/65-15(single tyre)	●	250-15	●	1574	1870	355/65-15-24PR(single tyre)	250-15-18PR	○	1574	1940
	8.25-15(dual tyre)	○	250-15	●	1489	1970	8.25-15-14PR(dual tyre)	250-15-18PR	○	1489	2000
CPD80	355/50-20(single tyre)	●	250-15	●	1623	1945	-	-	○	-	-
	8.25-15(dual tyre)	○	250-15	●	1489	1970	8.25-15-14PR(dual tyre)	250-15-18PR	○	1489	2000

Note: ● Std. ○ Opt;

# FORKLIFT TRUCK FOR WORK IN CONTAINER



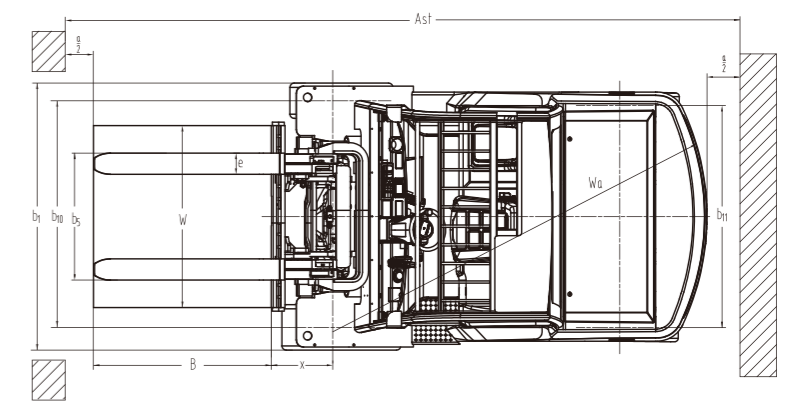
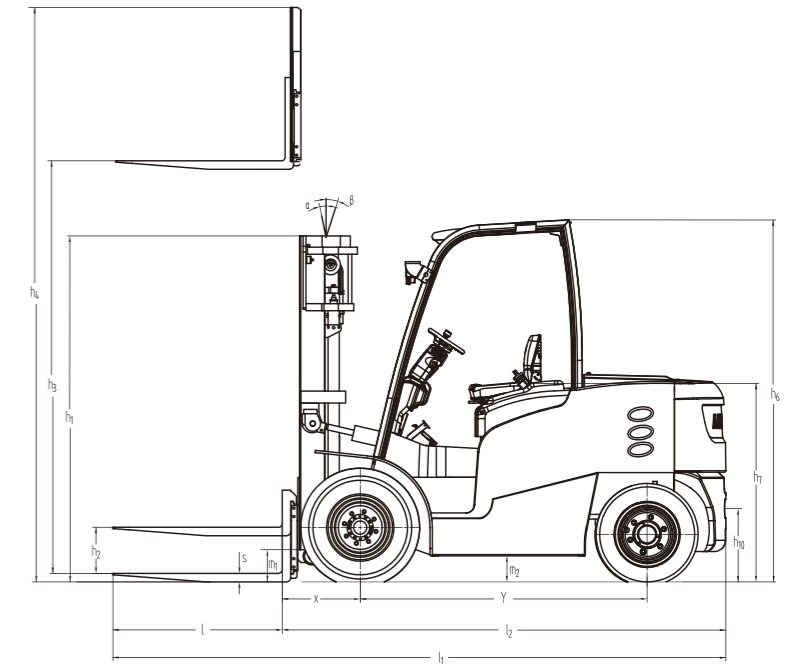
X series lithium battery forklift truck for work in container

			CPD60-XC4-IX	CPD70-XC4-IX	CPD80-XC4-IX	CPD80-XLC4-IX	CPD90-XC4-IX	CPD100-XC4-IX
4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta(^{\circ})$	5/10	5/10	5/10	5/8	5/8	5/8
4.2	Height, mast lowered	h1(mm)	2185	2185	2185	2200	2200	2200
4.3	Free lift	h2(mm)	1048	1048	1063	680	680	680
4.4	Lift	h3(mm)	2500	2500	2200	2000	2000	2000
4.5	Height, mast extended	h4(mm)	3637	3637	3337	3520	3520	3520
4.7	Height of overhead guard (cabin)	h6(mm)	2230	2230	2230	2230	2230	2230

Note: Std. Full free duplex mast

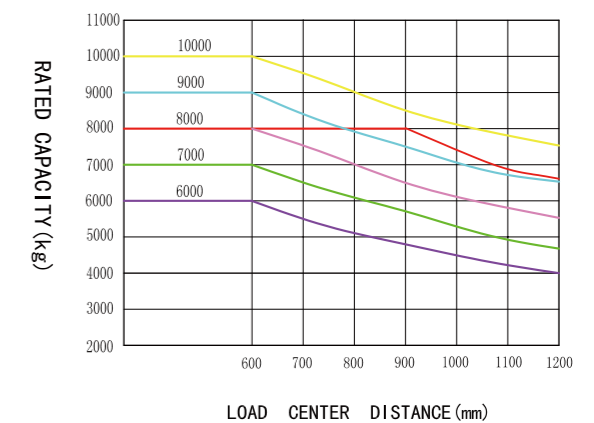
# X Series 6.0-10t Electric Forklift Specification

		HANGCHA GROUP CO.,LTD.														
Distinguishing mark	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.													
	1.2	Manufacturer's type designation	CPD60-XC4	CPD70-XC4	CPD80-XC4	CPD80-XLC4	CPD90-XC4	CPD100-XC4	CPD60-XC4-I	CPD70-XC4-I	CPD80-XC4-I	CPD80-XLC4-I	CPD90-XC4-I	CPD100-XC4-I		
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric	Electric	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	Seated	Seated	Seated	Seated		
	1.5	Rated capacity/rated load	Q (kg)	6000	7000	8000	8000	9000	10000	6000	7000	8000	8000	9000	10000	
	1.6	Load centre distance	c (mm)	600	600	600	900	600	600	600	600	600	900	600	600	
	1.8	Load distance, centre of drive axle to fork	x (mm)	598.5	603.5	623.5	640	640	640	598.5	603.5	623.5	640	640	640	
	1.9	Wheelbase	y (mm)	2030	2030	2030	2500	2500	2500	2030	2030	2030	2500	2500	2500	
	Weight	2.1	Service Weight	kg	9600	10280	12180	13530	12960	13780	9030	9400	11230	12480	11750	13180
2.2		Axle loading, laden front/rear	kg	13600/2000	15180/2100	17710/2470	19130/2400	19560/2400	21230/2550	13190/1840	14550/1850	17270/1970	18080/2400	18620/2130	20630/2550	
2.3		Axle loading, unladen front/rear	kg	4000/5600	3950/6300	4890/7290	6030/7500	5910/7050	6080/7700	3650/5380	3400/6000	4450/6780	4980/7500	4980/6770	5480/7700	
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE		
	3.2	Tyre size, front	355/65-15	355/65-15	355/50-20	8.25-15	8.25-15	300-15	355/65-15	355/65-15	355/50-20	8.25-15	8.25-15	300-15		
	3.3	Tyre size, rear	250-15	250-15	250-15	250-15	250-15	250-15	250-15	250-15	250-15	250-15	250-15	250-15		
	3.5	Wheels, number front / rear (x = driven wheels)	2x/2	2x/2	2x/2	4x/2	4x/2	4x/2	2x/2	2x/2	2x/2	4x/2	4x/2	4x/2		
	3.6	Tread, front	b <sub>10</sub> (mm)	1574	1574	1623	1489	1489	1493	1574	1574	1623	1489	1489		
	3.7	Tread, rear	b <sub>11</sub> (mm)	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5		
	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	5/10	5/10	5/10	
4.2		Height, mast lowered	h <sub>1</sub> (mm)	2500	2500	2650	2700	2700	2700	2500	2500	2650	2700	2700		
4.3		Free lift	h <sub>2</sub> (mm)	160	160	175	200	190	200	160	160	175	200	190		
4.4		Lift	h <sub>3</sub> (mm)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000		
4.5		Height, mast extended	h <sub>4</sub> (mm)	4407	4407	4407	4530	4530	4530	4407	4407	4407	4530	4530		
4.7		Height of overhead guard (cabin)	h <sub>5</sub> (mm)	2565	2565	2565	2565	2565	2565	2565	2565	2565	2565	2565		
4.8		Seat height/stand height	h <sub>7</sub> (mm)	1430	1430	1430	1430	1430	1430	1430	1430	1430	1430	1430		
4.12		Coupling height	h <sub>10</sub> (mm)	423	423	423	423	423	423	423	423	423	423	423		
4.19		Overall length	l <sub>1</sub> (mm)	4395	4400	4420	5505	4905	4905	4395	4400	4420	5505	4905		
4.20		Length to face of forks	l <sub>2</sub> (mm)	3195	3200	3220	3705	3705	3705	3195	3200	3220	3705	3705		
4.21		Overall width	b <sub>1</sub> (mm)	1870	1870	1945	1970	1970	2040	1870	1870	1945	1970	2040		
4.22		Fork dimensions	s/e/l (mm)	60/150/1200	65/150/1200	65/200/1200	80/200/1800	80/170/1200	80/170/1200	60/150/1200	65/150/1200	65/200/1200	80/200/1800	80/170/1200	80/170/1200	
4.23		Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 4A	ISO 2328 4A	ISO 2328 4A	ISO 2328 4A	ISO 2328 5A	ISO 2328 5A	ISO 2328 4A	ISO 2328 4A	ISO 2328 4A	ISO 2328 4A	ISO 2328 5A	ISO 2328 5A	
4.24		Fork-carriage width	b <sub>3</sub> (mm)	1700	1700	1700	1800	1800	1800	1700	1700	1700	1800	1800		
4.25		Distance between fork-arms	b <sub>5</sub> (mm)	300-1700	300-1700	400-1700	400-1800	340-1800	340-1800	300-1700	300-1700	400-1700	400-1700	340-1800	340-1800	
4.31		Ground clearance, laden, below mast	m <sub>1</sub> (mm)	200	200	200	200	200	200	200	200	200	200	200		
4.32		Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	183	183	183	183	183	183	183	183	183	183	183		
4.34.1		Aisle width for pallets 1000 x 1220 crossways	A <sub>s1</sub> (mm)	4848.5	4853.5	4873.5	5190	5180	5190	4848.5	4853.5	4873.5	5190	5180		
4.34.2		Aisle width for pallets 1200 x 1000 lengthways	A <sub>s2</sub> (mm)	5048.5	5053.5	5073.5	5390	5380	5390	5048.5	5053.5	5073.5	5390	5380		
4.35		Turning radius	W <sub>a</sub> (mm)	3050	3050	3050	3350	3350	3350	3050	3050	3050	3350	3350		
Performance data		5.1	Travel speed, laden/unladen	km/h	15/15.5	15/15.5	14.5/15.5	14.5/15.5	13.5/15.5	13.5/15.5	15/15.5	15/15.5	14.5/15.5	14.5/15.5	13.5/15.5	
		5.2	Lift speed, laden/unladen	m/s	0.34/0.39	0.32/0.39	0.3/0.39	0.3/0.44	0.28/0.4	0.25/0.4	0.34/0.39	0.32/0.39	0.3/0.39	0.3/0.44	0.28/0.4	
		5.3	Lowering speed, laden/unladen	m/s	0.45/0.4	0.5/0.34	0.545/0.345	0.545/0.345	0.545/0.345	0.545/0.345	0.45/0.4	0.5/0.34	0.545/0.345	0.545/0.345	0.545/0.345	
	5.6	Max. Drawbar pull	N	36000	36000	36000	36000	36000	36000	36000	36000	36000	36000	36000		
	5.8	Max. gradeability, laden	%	16	15	14	13	12	12	16	15	14	13	12		
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic		
	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical			
Electric-engine	6.1	Drive motor rating S2 60 min	kw	35	35	35	35	35	35	35	35	35	35	35		
	6.2	Lift motor rating at S3 15%	kw	40	40	40	52	52	52	40	40	52	52	52		
	6.3	Battery acc. to DIN 43531/35/36 A,B,C, no		no	no	no	no	no	no	no	no	no	no	no		
	6.4	Battery voltage, nominal capacity K5	V/Ah	96/720	96/810	96/945	96/945	96/1104	96/1260	96/542	96/542	96/542	96/606	96/606	96/606	
	6.5	Battery weight	kg	2310	2510	2820	2880	3430	3880	580	580	580	638	638	638	
	Battery dimensions	l/b/h(mm)	1420*610*570	1420*610*570	1420*610*570	1420*825*570	1420*825*570	1420*825*570	1420*610*580	1420*610*580	1420*610*580	1500*610*625	1500*610*625	1500*610*625		
	Max. battery weight	kg	2970	3500	3500	4720	4720	4720	780	780	780	780	780			
	Min. battery weight	kg	2310	2510	2820	2880	3430	3880	580	580	580	638	638	638		
8.1	Type of drive unit		MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	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	CURTIS	CURTIS	CURTIS	CURTIS		
Addition data	10.1	Operating pressure for attachments	bar	190	190	190	190	190	190	190	190	190	190	190		
	10.2	Oil volume for attachments	l/min	120	120	120	120	180	180	120	120	120	180	180		
	10.3	Hydraulic Tank - capacity (drain & refill)	liter	98	98	98	153	153	153	98	98	98	153	153		
	10.8	Towing coupling, type DIN 15170		Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin	Φ40 Pin		



A<sub>s1</sub>=B+x+W<sub>a</sub> B: Length of load or forks which is longer a=200mm safety clearance

RATED CAPACITY AND LOAD DIAGRAM



## 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	
			mm	mm	mm	mm	(°)	(°)	6t	7t
STD Duplex	2500	2250	3907	3495/3667	160	160	5	10	6000	7000
	2700	2350	4107	3695/3867	160	160	5	10	6000	7000
	3000	2500	4407	3995/4167	160	160	5	10	6000	7000
	3300	2650	4707	4295/4467	160	160	5	10	6000	7000
	3600	2800	5007	4595/4767	160	160	5	10	6000	7000
	4000	3000	5407	4995/5167	160	160	5	10	6000	7000
	4300	3200	5707	5300/5467	160	160	5	8	6000	7000
	4500	3300	5907	5500/5667	160	160	5	8	6000	7000
	4800	3450	6207	5800/5967	160	160	5	8	5800	6700
	5000	3550	6407	6000/6167	160	160	5	8	5700	6500
	5500	3850	6907	6550/6667	160	160	5	8	5400	6200
	6000	4100	7407	7050/7167	160	160	5	8	5000	5900
Full Free Lift	2500	2185	3637	3455/3615	1048	1230/1070	5	10	6000	7000
	2700	2300	3837	3655/3815	1163	1345/1185	5	10	6000	7000
	3000	2450	4137	3955/4115	1313	1495/1335	5	10	6000	7000
	3300	2600	4437	4255/4415	1463	1645/1485	5	10	6000	7000
	3600	2750	4737	4555/4715	1613	1795/1635	5	10	5800	6800
	4000	2950	5137	4955/5115	1813	1995/1835	5	10	5800	6800
Triplex	4500	2725	5907	5735	1328	1500	5	8	5700	6700
	4800	2825	6207	6035	1428	1600	5	8	5600	6600
	5000	2875	6407	6213	1478	1672	5	8	5500	6400
	5500	3075	6907	6785	1678	1800	5	8	5300	6200
	6000	3225	7407	7235	1828	2000	5	8	5200	5800

## 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		load capacity at 900mm
			mm	mm	mm	mm	mm	mm	(°)	(°)	9t
STD Duplex	2500	2450	4030	3900	200	200	5	8	9000	10000	8000
	2700	2550	4230	4100	200	200	5	8	9000	10000	8000
	3000	2700	4530	4400	200	200	5	10	9000	10000	8000
	3300	2850	4830	4700	200	200	5	10	9000	10000	8000
	3600	3000	5130	5000	200	200	5	10	9000	10000	8000
	4000	3200	5530	5400	200	200	5	10	9000	10000	8000
	4300	3400	5830	5700	200	200	5	8	9000	10000	8000
	4500	3500	6030	5900	200	200	5	8	8500	9500	7800
	4800	3650	6330	6200	200	200	5	8	8400	9400	7600
	5000	3750	6530	6440	200	200	5	8	8300	9300	7400
	5500	4050	7030	6900	200	200	5	8	8100	9100	7200
	6000	4300	7530	7400	200	200	5	8	7700	8700	6900
Full Free Lift	3000	2700	4520	4390	1180	1310	5	10	9000	10000	8000
	3300	2850	4820	4690	1330	1460	5	10	9000	10000	8000
	3600	3000	5120	4990	1480	1610	5	10	8900	9900	8000
	4000	3200	5520	5390	1680	1810	5	10	8700	9700	7800
Triplex	4500	2850	6055	6055	1305	1305	5	8	8600	9600	7600
	4800	2950	6355	6355	1405	1405	5	8	8200	9200	7500
	5000	3050	6555	6555	1505	1505	5	8	8000	9000	7400
	5500	3200	7055	7055	1655	1655	5	8	7900	8900	7200
6000	3350	7555	7555	1805	1805	5	8	7500	8500	6800	

## 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	
			mm	mm	mm	mm	(°)	(°)	8t	
STD Duplex	2500	2400	3907	3817	175	175	5	10	8000	
	2700	2500	4107	4017	175	175	5	10	8000	
	3000	2650	4407	4317	175	175	5	10	8000	
	3300	2800	4707	4617	175	175	5	10	8000	
	3600	3000	5007	4917	175	175	5	10	8000	
	4000	3200	5407	5317	175	175	5	10	8000	
	4300	3300	5707	5617	175	175	5	8	8000	
	4500	3450	5907	5817	175	175	5	8	8000	
	4800	3550	6207	6117	175	175	5	8	7700	
	5000	3850	6407	6317	175	175	5	8	7500	
	5500	4100	6907	6817	175	175	5	8	7200	
	6000	4350	7407	7317	175	175	5	8	6900	
Full Free Lift	3000	2600	4265	4265	1335	1335	5	10	8000	
	3300	2750	4565	4565	1485	1485	5	10	8000	
	3600	2900	4865	4865	1635	1635	5	10	7800	
	4000	3100	5265	5265	1835	1835	5	10	7800	
Triplex	4500	2725	5907	5862	1328	1373	5	8	7600	
	4800	2825	6207	6162	1428	1473	5	8	7500	
	5000	2875	6407	6362	1478	1523	5	8	7400	
	5500	3075	6907	6862	1678	1723	5	8	7200	
6000	3225	7407	7362	1828	1873	5	8	6800		

Note: With load backrest; 6-8t Height of standard load backrest is 1270 mm, 8L-10t Height of standard load backrest is 1393 mm.

