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A Series Three-Wheel Electric Forklift

with capacities of 3,000 to 4,000lbs

Making Material Handling Easier
SINCE 1956



Move Freely Lift Easily

The newest generation A Series Three-Wheel Electric forklift is designed to move freely throughout its operational environment. The forklift's three-wheel design allows it to turn 360 degrees in its own footprint making it perfect for narrow applications. In addition, the safety features, operator comfort features, performance, and reliability are all improved to allow the operator to lift easily.





Appearance

/ Function meets form with the A Series Three-Wheel Electric Forklift. The exterior of the forklift is powder coated in a durable red finish. The robust construction of this forklift is designed with the wear and tear from material handling environments in mind. The eye-catching, smooth body lines meet narrow application design with the A Series Three-Wheel Electric Forklift.

Maneuverability

/ With dual separate driving motors, this forklift can move the front wheels forward or backwards independently. This combined with the 3-wheel design, allows for the forklift to have a small turning radius suitable for narrow applications. The high-performance AC driving motors deliver reliable power to keep the user moving quickly throughout their facility. The imported reducer and high power driving motors provide reliable and strong performance.

Maintenance

/ Designed with ease of access in mind, service engineers can remove the front floorboards without the need of tools. The operating levers have also been redesigned so that they can be adjusted forward. This allows the cover to easily open revealing the battery compartment and the power connector.

Comfort

- / The operator's seat, steering column, and the newly designed adjustable levers can be easily adjusted to find the operator's most comfortable driving position.
- / The instrument display is easy to see and provides crucial data such as running hours, self diagnosis functions, and the remaining power in the battery.
- / The optional suspension seat is also designed to minimize vibration and reduce operator fatigue.

Stability

- / The battery compartment is designed to sit low to the ground. By doing this, the forklift's stability increased and provides more even weight distribution.
- / Standard on this model, the soft landing system provides increased stability by sensing the load and decreasing the lowering speed of the forks.

Safety

This forklift was designed to meet both the ANSI and ITSDF safety standards. This means that the following all come standard on this forklift:

- / An emergency cut off switch.
- / An overloading protection system is integrated into the electronics and hydraulic systems.
- / The controller automatically reduces the forklift's speed while cornering.

High Efficiency

- / High power pump motor and low noise gear pump, both improve the lifting speed and work efficiency.
- / Regenerative braking during deceleration is more energy saving and effectively.

Advance

- / 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.

Standard Specification

- / Highly Efficient Dual Front AC Driving Motors
- / Multi-Function Instrument Display
- / Rubber Floor Mat
- / Smooth Cushion Tires
- / Emergency Cut Off Switch
- / LED Headlights
- / Rear Combination LED Light
- / Panoramic Rearview Mirror
- / 118.1" Limited Free Lift 2 Stage Mast
- / Adjustable Steering Column
- / Fully Electronic Controlled Travelling, Lifting, and Steering
- / Horn and Reverse Alarm
- / CANBUS System
- / Low Noise Gear Pump
- / Fully Hydraulic Steering
- / Soft Landing System
- / Non Suspension Seat
- / ZF Reducer
- / SCHABMULLER Traveling Motor
- / CURTIS Controller
- / Operator Presence Sensing System (OPS)

Options

- / 3rd or 4th Hydraulic Function
- / 98.4-177.2" Full Free Lift 2 Stage Mast
- / 169.3-255.9" Full Free Lift 3 Stage Mast
- / Rear LED Working Light
- / Rear Grip with Horn Button
- / Integrated Sideshifter
- / Other Attachments
- / Other Dimensions of Forks
- / Special Carriage and Backrest
- / Larger Capacity Battery
- / Non-Marking Tire
- / Battery Charger
- / Battery Side Extraction
- / Grammer Integrated Fingertip Control System
- / Freezer
- / Full Suspension Seat
- / Full Cabin
- / Traction Tires
- / Blue Light
- / Left/Right Mirror

36V ↔ 48V

The 36V system and the 48V system can be switched by changing the battery and switching the meter mode.



Dual Front AC Driving Motors



Panoramic Rearview Mirror



Adjustable Levers for Easy Battery Access



Tight Turning Radius

A Series 3-Wheel Electric Forklift

		HANGCHA GROUP CO., LTD.									
Characteristics	11	Manufacturer		FBT15		FBT16		FBT18		FBT20	
	12	HCFA Model		CPDS15-AC6-NA		CPDS16-AC6-NA		CPDS18-AC6-NA		CPDS20-AC6-NA	
	13	Power Type: Electric, Gas, Diesel, LPG		Electric(36V)		Electric(48V)		Electric(36V)		Electric(48V)	
Weight	14	Operation Type		Rider seated		Rider seated		Rider seated		Rider seated	
	15	Load capacity/rated load		3000(1360)		3200(1450)		3500(1630)		4000(1810)	
	16	Load center		c		c		c		c	
	17	Load distance, centre of drive axle to fork		x		x		x		x	
	18	Wheelbase		y		y		y		y	
Tyres	21	Service weight		6570(2980)		6878(3120)		7143(3240)		7650(3470)	
	22	Axle load, with load, front		8576(3890)		9040(4100)		9590(4350)		10472(4750)	
	23	Axle load, with load, rear		1301(590)		1367(620)		1521(690)		1687(770)	
	24	Axle load, without load, front		2976(1350)		3175(1440)		3175(1440)		3373(1530)	
	25	Axle load, without load, rear		3594(1630)		3704(1680)		3968(1800)		4277(1940)	
Dimensions	31	Tyres type		Cushion		Cushion		Cushion		Cushion	
	32	Tyre size, front		18x7x12-1/8		18x7x12-1/8		18x7x12-1/8		18x8x12-1/8	
	33	Tyre size, rear		15x4.5x11-1/4		15x4.5x11-1/4		15x4.5x11-1/4		15x4.5x11-1/4	
	34	Number of wheels, front / rear(x=driven)		2x/2		2x/2		2x/2		2x/2	
	35	Track width, front		b0		b0		b0		b0	
Performance Data	41	Tilt of mast/fork carriage forward/backward		α/β		α/β		α/β		α/β	
	42	Height, mast lowered		h1		h1		h1		h1	
	43	Height, mast extended		h4		h4		h4		h4	
	44	Free lift		h2		h2		h2		h2	
	45	Lift		h3		h3		h3		h3	
	46	Height overhead guard		hs		hs		hs		hs	
	47	Overall length		l1		l1		l1		l1	
	48	Length to fork face		l2		l2		l2		l2	
	49	Overall width		b1		b1		b1		b1	
	410	Fork dimensions		s*φ=I		s*φ=I		s*φ=I		s*φ=I	
	411	Fork carriage DIN 15 173, class/type A,B		IIA		IIA		IIA		IIA	
	412	Fork-carriage width		b3		b3		b3		b3	
	413	Ground clearance, with load, below mast		m1		m1		m1		m1	
	414	Ground clearance, center of wheelbase		m2		m2		m2		m2	
	415	Aisle width for pallets 1000 x 1200 crossways		Ast		Ast		Ast		Ast	
416	Aisle width for pallets 800 x 1200 lengthways		Ast		Ast		Ast		Ast		
417	Turning radius, outside		Wa		Wa		Wa		Wa		
Drive	51	Travel speed, with/without load		mph (km/h)		9.9(16)/9.9(16)		9.9(16)/9.9(16)		9.3(15)/9.3(15)	
	52	Lift speed, with/without load		fpm (mm/s)		76.8(390)/92.5(470)		74.8(380)/92.5(470)		68.9(350)/88.6(450)	
	53	Lowering speed, with/without load		fpm (mm/s)		91(460)/86.6(440)		91(460)/86.6(440)		92.5(470)/82.7(420)	
	54	Max. Drawbar pull, with/without load		lbf(N)		2697.8(12000)		2607.8(11600)		2585.3(11600)	
	55	Max. gradeability, with/without load		%		16/18		16/18		15/17	
Other	71	Drive motor control		Curtis AC		Curtis AC		Curtis AC		Curtis AC	
	72	Pressure for attachments		psi (bar)		2175(150)		2175(150)		2175(150)	

3,000-3,500lb Mast

Type	Model	Lifting Height	Overall Height				Free Lifting Height		Front Overhang	Tilting Range		Capacity		
			Lowered	Extended		With Backrest	Without Backrest	Forward		Backward	Load Capacity at 24 in (600mm)			
				With Backrest	Without Backrest						3000lb	3200lb	3500lb	
		in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	deg	deg	lb(kg)	lb(kg)	lb(kg)		
Limited Free Lift 2 Stage Mast	M250	98.4(2500)	68.7(1745)	135.6(3445)	120.7(3065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M270	106.3(2700)	72.6(1845)	143.5(3645)	128.5(3265)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M300	118.1(3000)	78.5(1995)	155.3(3945)	140.4(3565)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M330	129.9(3300)	84.4(2145)	167.1(4245)	152.2(3865)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M350	137.8(3500)	88.4(2245)	175.4(4445)	160.4(4065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
Full Free Lift 2 Stage Mast	M360	141.7(3600)	90.4(2295)	178.9(4545)	164.4(4165)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	M400	157.5(4000)	100.2(2545)	194.7(4945)	179.7(4565)	5.7(145)	5.7(145)	14.2(360)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
	M430	169.3(4300)	106.7(2710)	206.5(5245)	191.5(4865)	5.7(145)	5.7(145)	14.2(360)	3.5	5	2900(1310)	3200(1450)	3400(1540)	
	M450	177.2(4500)	111(2820)	214.4(5445)	199.4(5065)	5.7(145)	5.7(145)	14.2(360)	3.5	5	2800(1270)	3000(1360)	3400(1540)	
	U250	98.4(2500)	68.7(1745)	136(3455)	121.9(3095)	31.5(800)	45.7(1160)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
Full Free Lift 3 Stage Mast	U270	106.3(2700)	72.6(1845)	143.9(3655)	129.7(3295)	35.4(900)	49.6(1260)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U300	118.1(3000)	78.5(1995)	155.7(3955)	141.5(3595)	41.3(1050)	55.5(1410)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U330	129.9(3300)	84.4(2145)	167.5(4255)	153.3(3895)	47.2(1200)	61.4(1560)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U350	137.8(3500)	88.4(2245)	175.4(4455)	161.2(4095)	51.2(1300)	65.4(1660)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	U360	141.7(3600)	90.4(2295)	179.3(4555)	165.2(4195)	53.1(1350)	67.3(1710)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
Full Free Lift 3 Stage Mast	U400	157.5(4000)	100.2(2545)	195.1(4955)	180.9(4595)	63(1600)	77.2(1960)	14.9(379)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
	N400	157.5(4000)	75.2(1910)	195.1(4955)	180.9(4595)	38(965)	52.2(1325)	15.4(390)	3.5	5	3000(1360)	3200(1450)	3500(1630)	
	N430	169.3(4300)	79.1(2010)	206.9(5255)	192.7(4895)	42(1065)	56.1(1425)	15.4(390)	3.5	5	2800(1270)	3100(1410)	3400(1540)	
	N450	177.2(4500)	81.7(2075)	214.8(5455)	200.6(5095)	44.5(1130)	58.7(1490)	15.4(390)	3.5	5	2700(1220)	3000(1360)	3200(1450)	
	N470	185(4700)	83.7(2125)	222.6(5655)	208.5(5295)	46.5(1180)	60.2(1530)	15.4(390)	3.5	5	2566(1164)	286(1298)	3159(1433)	
	N480	189(4800)	85.6(2175)	226.6(5755)	212.4(5395)	48.4(390)	62.6(1590)	15.4(390)	3.5	5	2600(1180)	2900(1310)	3200(1450)	
	N500	196.9(5000)	88.2(2240)	234.4(5955)	220.3(5595)	51(1295)	65.2(1655)	15.4(390)	3.5	5	2500(1130)	2800(1270)	3000(1360)	
	N550	216.5(5500)	94.9(2410)	254.1(6455)	240(6095)	57.1(1465)	71.9(1825)	15.4(390)	3.5	5	2300(1040)	2500(1130)	2600(1180)	
N600	236.2(6000)	103.3(2625)	273.8(6955)	260.8(6625)	66.1(1680)	79.1(2010)	15.4(390)	3.5	5	2000(910)	2200(1000)	2400(1090)		
N650	255.9(6500)	111.8(2840)	293.5(7455)	282.3(7170)	74.6(1895)	85.8(2180)	15.4(390)	3.5	5	1800(810)	1800(810)	2000(910)		

With sideshifter, subtract 400lb (200kg). With integral sideshifter, subtract 200lb (100kg).

4,000lb Mast

Type	Model	Lifting height	Overall Height				Free Lifting Height		Front Overhang	Tilting Range		Capacity	
			Lowered	Extended		With Backrest	Without Backrest	Forward		Backward	Load Capacity at 24 in (600mm)		
				With Backrest	Without Backrest						4000lb	4000lb	
		in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	deg	deg	lb(kg)	lb(kg)	
Limited Free Lift 2 Stage Mast	M250	98.4(2500)	68.1(1730)	136.0(3455)	119.4(3033)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
	M270	106.3(2700)	72.0(1830)	143.9(3655)	127.3(3233)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
	M300	118.1(3000)	78.0(1980)	155.7(3955)	139.3(3533)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
	M330	129.9(3300)	83.9(2130)	167.5(4255)	150.9(3833)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
	M350	137.8(3500)	87.8(2230)	175.4(4455)	158.8(4033)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
Full Free Lift 2 Stage Mast	M360	141.7(3600)	91.7(2330)	179.3(4555)	162.7(4133)	5.7(145)	5.7(145)	15.0(380)	5.5	6	4000(1810)	4000(1810)	
	M400	157.5(4000)	101.6(2580)	195.1(4955)	178.5(4533)	5.7(145)	5.7(145)	15.0(380)	3.5	5	4000(1810)	4000(1810)	
	M430	169.3(4300)	107.5(2730)	206.9(5255)	190.3(4833)	5.7(145)	5.7(145)	15.0(380)	3.5	5	3900(1770)	3900(1770)	
	M450	177.2(4500)	111.4(2830)	214.8(5455)	198.1(5033)	5.7(145)	5.7(145)	15.0(380)	3.5	5	3800(1720)	3800(1720)	
	U250	98.4(2500)	68.7(1745)	135.6(3445)	120.4(3059)	31.5(800)	46.7(1186)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
	U270	106.3(2700)	72.6(1845)	143.5(3645)	128.3(3259)	35.4(900)	50.6(1286)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
	U300	118.1(3000)	78.5(1995)	155.3(3945)	140.1(3559)	41.3(1050)	56.5(1436)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
	U330	129.9(3300)	84.4(2145)	167.1(4245)	151.9(3859)	47.2(1200)	62.4(1686)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
	U350	137.8(3500)	88.4(2245)	175.4(4445)	159.8(4059)	51.2(1300)	66.4(1686)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
	U360	141.7(3600)	90.4(2295)	178.9(4545)	163.7(4159)	53.1(1350)	68.3(1736)	15.2(386)	5.5	6	4000(1810)	4000(1810)	
Full Free Lift 3 Stage Mast	U400	157.5(4000)	100.2(2545)	194.7(4945)	179.5(4559)	63.0(1600)	78.2(1986)	15.2(386)	3.5	5	4000(1810)	4000(1810)	
	N400	157.5(4000)	74.0(1880)	198.7(5046)	182.0(4622)	32.8(834)	49.5(258)	15.6(395)	3.5	5	4000(1810)	4000(1810)	
	N430	169.3(4300)	78.0(1980)	210.5(5346)	193.8(4922)	36.8(934)	53.5(1358)	1					