



A Series 3-Wheel Electric Forklift

with capacities of 3,000 to 4,000lbs

The World of Hangcha


HANGCHA
AMERICA

Move freely, lift freely

The newest generation A series 3-Wheel electric counterbalance truck is new product of HANGCHA.
The totally new designed outline, safety, comfortability and reliability are fully improved, and the whole truck's performance is also improved.







Appearance

/ Compact design meets the limited space operation requirement. Eyeball catching designed smooth outline and metal material applied for exposed parts, all provide robust construction of the A series three-pivot electric counterbalance forklift truck.

Maneuverability

/ Front dual separated driving motors can realize the wheels forward or backward independently, the small turning radius is suitable for narrow channel; Imported reducer, high power driving motor provides a reliable and strong performance.

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.

Comfort

- / Thanks to the new designed adjustable levers, the operator can work more comfortable. New designed dashboard is easy to see and provides friendly human-computer interaction and with running hours, self diagnosis functions and the battery power show.
- / Both the steering column and seat can be adjusted easily, every operator can find the best driving position.
- / Low vibration and suspension seat reduce the driver's fatigue.

Stability

- / Sinking type battery layout provides good stability especially during cornering.
- / The soft landing system protects the forks from dashing against the ground.

Safety

- / Emergency switch is standard specification which meets the Euro safety regulation.
- / Both electronics and hydraulic system are equipped with overloading protection system.
- / Driving speed is automatically reduction during cornering.

Maintenance

- / Full opened battery cover is easy for battery service and changing.
- / The service engineer can remove the front floor board without any tool, it is convenient for the maintenance.

Advance

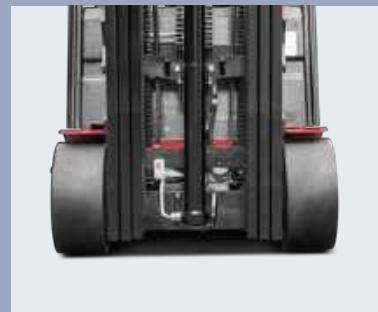
- / World famous controller, connectors, battery plug and emergency switch are applied to ensure the reliability of the performance and provides easy service.
- / High frequency MOSFET integrated control system provides accurate control of travelling, lifting and better adjustable performance that better matches with the motor. No roll-back on ramp is also provided thanks to MOSFET controller. Motor brake is for regenerative braking during deceleration, direction changing, and downward slope.

36V ↔ 48V

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

Standard Specification

- / High efficiency AC driving motor
- / Multi-functions instrument
- / Front dual driving motors
- / Rubber floor mat
- / Smooth Cushion Tyre
- / Emergency disconnect switch
- / LED headlight
- / Rear combination LED light
- / Panoramic rearview mirror (in the middle position of the overhead guard)
- / 118.1 inch duplex wide view mast
- / Adjustable steering column
- / Full electronic controlled travelling, lifting and steering
- / Horn and reversing buzzer
- / CAN-BUS system
- / Low noise gear pump (Brand: Shimadzu, Made in Japan)
- / Full hydraulic steering
- / Soft landing system
- / Non suspension seat: Grammer GS12 with switch
- / ZF reducer and SCHABMULLER traveling motor
- / CURTIS controller



Front dual separated motors



Panoramic rearview mirror

Options

- / 3rd or 4th hydraulic function
- / 98.4~177.2 inch duplex mast
- / 169.3~255.9 inch triplex mast
- / Rear working LED light
- / Reversing assist grip with horn button
- / Integrated sideshifter
- / Other attachments
- / Other dimension forks
- / Special carriage and backrest
- / Big capacity battery
- / Non-marking tyre
- / Battery charger
- / Battery side extraction
- / Fingertip control on the adjustable armrest
- / Freezer
- / Suspension seat
- / Full closed cabin
- / Traction tyres
- / Blue spot light
- / OPS system



Cover can be easily opened by adjusting the levels forward



The small turning radius is suitable for narrow aisle

A Series 3-Wheel Electric Forklift Truck

		HANGCHA GROUP CO., LTD.									
Characteristics	1.1	Manufacturer		FBT15		FBT16		FBT18		FBT20	
	1.2	HCFCA Model		CPDS15-AC6-NA		CPDS16-AC6-NA		CPDS18-AC6-NA		CPDS20-AC6-NA	
	1.3	Power Type: Electric, Gas, Diesel, LPG		Electric(36V) Electric(48V)		Electric(36V) Electric(48V)		Electric(36V) Electric(48V)		Electric(36V) Electric(48V)	
	1.4	Operation Type		Rider seated		Rider seated		Rider seated		Rider seated	
	1.5	Load capacity/rated load		Q lb(kg)	3000(1360)	3200(1450)	3500(1630)	4000(1810)			
	1.6	Load center		c in(mm)	24(600)	24(600)	24(600)	24(600)			
	1.7	Load distance, centre of drive axle to fork		x in(mm)	14.2(360)	14.2(360)	14.2(360)	15(380)			
	1.8	Wheelbase		y in(mm)	49.2(2120)	53.5(1358)	53.5(1358)	57.7(1466)			
	2.1	Service weight		lb(kg)	6570(2980)	6878(3120)	7143(3240)	7650(3470)			
Weight	2.2	Axle load, with load, front		lb(kg)	8576(3890)	9940(4100)	9590(4350)	10472(4750)			
	2.3	Axle load, with load, rear		lb(kg)	1301(590)	1367(620)	1521(690)	1587(720)			
	2.4	Axle load, without load, front		lb(kg)	2976(1350)	3175(1440)	3175(1440)	3373(1530)			
	2.5	Axle load, without load, rear		lb(kg)	3594(1630)	3704(1680)	3968(1800)	4277(1940)			
	3.1	Tyres type			Cushion	Cushion	Cushion	Cushion			
	3.2	Tyre size, front			18x7x12-1/8	18x7x12-1/8	18x7x12-1/8	18x8x12-1/8			
Tyres	3.3	Tyre size, rear			15x4.5x11-1/4	15x4.5x11-1/4	15x4.5x11-1/4	15x4.5x11-1/4			
	3.4	Number of wheels, front / rear(x=driven)			2x/2	2x/2	2x/2	2x/2			
	3.5	Track width, front		b10 in(mm)	35.8(910)	35.8(910)	35.8(910)	35.7(906)			
	3.6	Track width, rear		b11 in(mm)	7.3(186)	7.3(186)	7.3(186)	7.3(186)			
	4.1	Tilt of mast/fork carriage forward/backward		a/b [°]	5.5/6	5.5/6	5.5/6	5.5/6			
	4.2	Height, mast lowered		h1 in(mm)	78.5(1995)	78.5(1995)	78.5(1995)	78.5(1995)			
Dimensions	4.3	Height, mast extended		h4 in(mm)	155.3(3945)	155.3(3945)	155.3(3945)	155.3(3945)			
	4.4	Free lift		h2 in(mm)	5.7(145)	5.7(145)	5.7(145)	5.7(145)			
	4.5	Lift		h3 in(mm)	118.1(3000)	118.1(3000)	118.1(3000)	118.1(3000)			
	4.6	Height overhead guard		h6 in(mm)	80.3(2040)	80.3(2040)	80.3(2040)	80.3(2040)			
	4.7	Overall length		l1 in(mm)	106.9(2715)	111(2823)	111(2823)	116.2(2951)			
	4.8	Length to fork face		l2 in(mm)	70.7(1795)	74.9(1903)	74.9(1903)	80(2031)			
Performance Data	4.9	Overall width		b1 in(mm)	42.8(1086)	42.8(1086)	42.8(1086)	43.7(1109)			
	4.10	Fork dimensions		S×e×l in(mm)	14.3×9.36×2 (35×100×920)	14.3×9.36×2 (35×100×920)	14.3×9.36×2 (35×100×920)	14.6×9.36×2 (40+122×920)			
	4.11	Fork carriage DIN 15 173, class/type A,B			IIA	IIA	IIA	IIA			
	4.12	Fork-carriage width		b3 in(mm)	39.4(1000)	39.4(1000)	39.4(1000)	39.4(1000)			
	4.13	Ground clearance, with load, below mast		m1 in(mm)	3.9(100)	3.9(100)	3.9(100)	3.9(100)			
	4.14	Ground clearance, center of wheelbase		m2 in(mm)	4.3(110)	4.3(110)	4.3(110)	4.3(110)			
Performance Data	4.15	Aisle width for pallets 1000 x 1200 crossways		As1 in(mm)	123.4(3134)	127.4(3237)	127.4(3237)	131.6(3342)			
	4.16	Aisle width for pallets 800 x 1200 lengthways		As2 in(mm)	128.2(3257)	132.3(3360)	132.3(3360)	136.4(3465)			
	4.17	Turning radius, outside		Wa in(mm)	57.2(1452)	61.2(1555)	61.2(1555)	65.4(1660)			
	5.1	Travel speed, with/without load		mph (km/h)	9.9(16)/9.9(16)	9.9(16)/9.9(16)	9.9(16)/9.9(16)	9.3(15)/9.3(15)			
	5.2	Lift speed, with/without load		fpm (mm/s)	76.8(390)/92.5(470)	74.8(380)/92.5(470)	72.8(370)/88.6(450)	68.9(350)/88.6(450)			
	5.3	Lowering speed, with/without load		fpm (mm/s)	9.1(460)/86.6(440)	9.1(460)/86.6(440)	9.1(460)/82.7(420)	9.2(470)/82.7(420)			
Drive	5.4	Max. Drawbar pull,with/without load		lbf(N)	2697.8(12000) /2697.8(12000)	2607.8(11600) /2585.3(11500)	2585.3(11500) /2562.8(11400)	2585.3(11200) /2562.8(11000)			
	5.5	Max. gradeability, with/without load		%	16/18	16/18	15/17	13/15			
	5.6	Service brake			Hydraulic	Hydraulic	Hydraulic	Hydraulic			
	5.7	Parking brake			Mechanical	Mechanical	Mechanical	Mechanical			
	5.8	Steering			Hydraulic	Hydraulic	Hydraulic	Hydraulic			
	6.1	Drive motor, 60 minute rating		HP (kW)	6.4(4.8)×2 AC	6.4(4.8)×2 AC	6.4(4.8)×2 AC	6.4(4.8)×2 AC			
Drive	6.2	Pump motor, 15 minute rating		HP (kW)	13.4(10)	13.4(10)	13.4(10)	13.4(10)			
	6.3	Battery voltage		voltts	36	48	36	48			
	6.4	Battery capacity, minimum		Ah/6 hr. rate	575	400	690	500			
	6.5	Battery capacity, maximum		Ah/6 hr. rate	575	460	690	575			
	6.6	Battery weight, minimum		lb(kg)	1477(670)	1785(810)	1785(810)	2116(960)			
	6.7	Battery weight, maximum		lb(kg)	1653(750)	1984(900)	1984(900)	2348(1065)			
Other	7.1	Drive motor control			Curtis AC	Curtis AC	Curtis AC	Curtis AC			
	7.2	Pressure for attachments		psi (bar)	2175(150)	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)			
			in(mm)	in(mm)	in(mm)	in(mm)		in(mm)	in(mm)	deg	deg	lb(kg)	lb(kg)	lb(kg)	
Duplex wide view 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)		
Duplex wide view mast	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)		
Duplex full-free mast	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)		
Duplex full-free mast	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)		
Duplex full-free mast	M350	137.8(3500)	88.4(2245)	175.6(4445)	160(4065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)		
Duplex full-free mast	M360	141.7(3600)	90.4(2295)	178.9(4545)	164(4165)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)		
Duplex full-free mast	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)		
Duplex full-free mast	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)		
Duplex full-free mast	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)		
Triplex mast	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)		
Triplex 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)		
Triplex mast	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)		
Triplex mast	U330	129.9(3300)	84.4(2145)	167.5(4255)	153.3(3895)	47.2(1200)	61.4(1660)	14.9(379)	5.5	6	3000(1360)	3200(1450)	3500(1630)		
Triplex mast	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)		
Triplex mast	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)		
Triplex 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)				

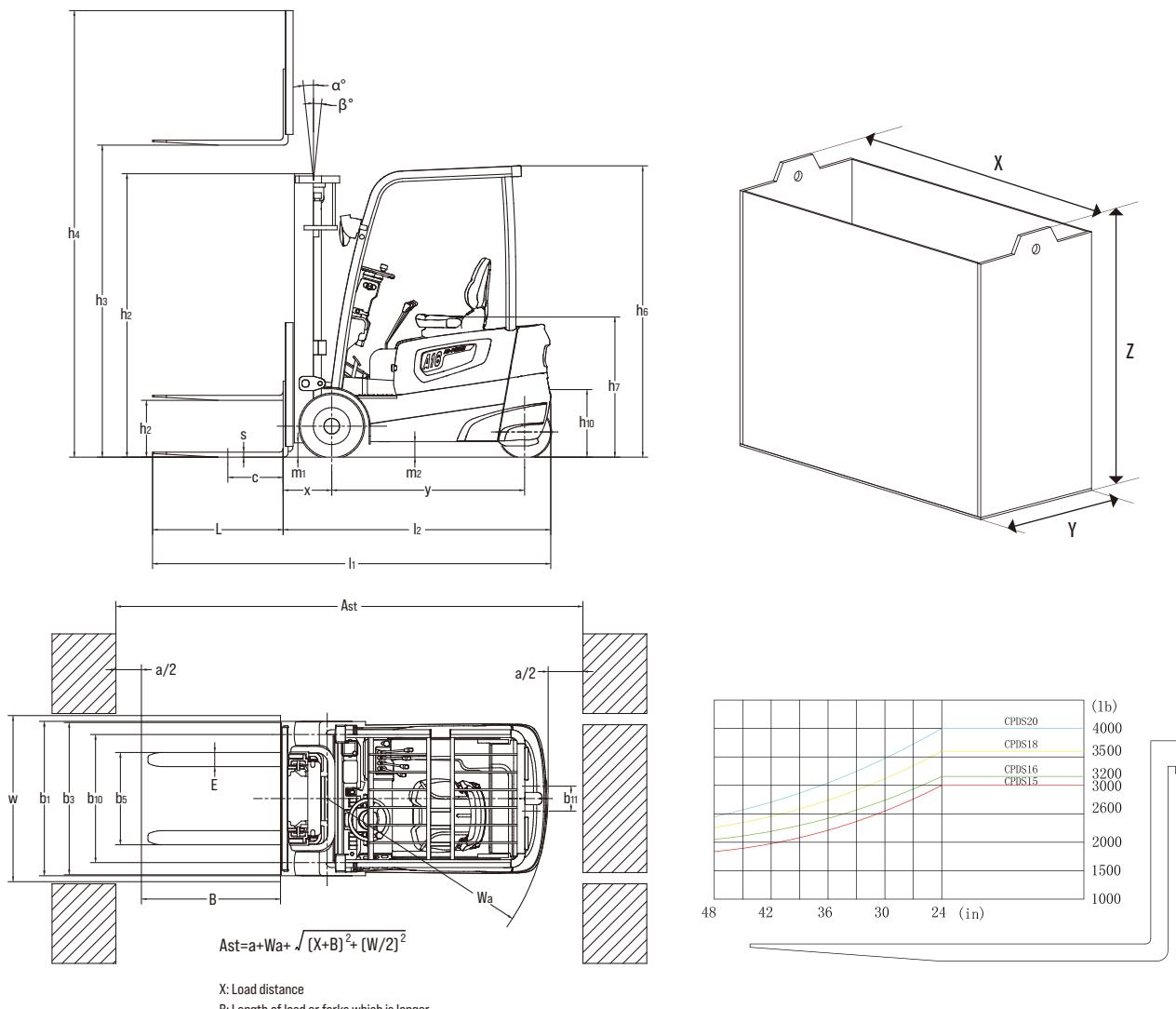
4,000lb Mast

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)	
				in(mm)	in(mm)					lb(kg)	4000lb
Duplex wide view 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)
	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)
	M300	118.1(3000)	78.0(1980)	155.7(3955)	139.1(3533)	5.7(145)	5.7(145)	15.0(380)	5.5	6	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)
	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)
	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)
	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)
	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)
	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)
Duplex full-free mast	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)
	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)
	U300	118.1(3000)	78.5(1995)	155.3(3945)	140.1(3569)	41.3(1050)	56.5(1436)	15.2(386)	5.5	6	4000(1810)
	U330	129.9(3300)	84.4(2145)	167.1(4245)	151.9(3869)	47.2(1200)	62.4(1586)	15.2(386)	5.5	6	4000(1810)
	U350	137.8(3500)	88.4(2245)	175.0(4445)	159.8(4059)	51.2(1300)	66.4(1686)	15.2(386)	5.5	6	4000(1810)
	U360	141.7(3600)	90.4(2295)	178.9(4545)	163.7(4169)	53.1(1350)	68.3(1736)	15.2(386)	5.5	6	4000(1810)
	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)
	N400	157.5(4000)	74.0(1880)	198.7(5046)	182.0(4622)	32.8(834)	49.5(1258)	15.6(395)	3.5	5	4000(1810)
Triplex mast	N430	169.3(4300)	78.0(1980)	210.5(5346)	193.8(4922)	36.8(934)	53.5(1358)	15.6(395)	3.5	5	3800(1720)
	N450	177.2(4500)	79.9(2030)	218.7(5556)	202.0(5132)	38.7(984)	55.4(1408)	15.6(395)	3.5	5	3800(1630)
	N480	189.1(4800)	83.9(2130)	230.6(5856)	213.5(5422)	42.7(1084)	59.4(1508)	15.6(395)	3.5	5	3400(1540)
	N500	196.9(5000)	86.8(2205)	238.0(6046)	221.3(5622)	45.6(1159)	62.3(1583)	15.6(395)	3.5	5	3200(1450)
	N550	216.5(5500)	93.7(2380)	257.7(6546)	241.0(6122)	52.5(1334)	69.2(1758)	15.6(395)	3.5	5	3000(1360)
	N600	236.2(6000)	101.6(2580)	277.4(7046)	260.7(6622)	60.4(1534)	77.1(1958)	15.6(395)	3.5	5	2600(1180)
	N650	255.9(6500)	111.4(2830)	297.1(7546)	280.4(7122)	70.2(1784)	86.9(2208)	15.6(395)	3.5	5	2200(1000)

With sidemixer minus 400lb(200kg),with integral sidemixer minus 200lb(100kg).

Battery and compartment size

Model	CPDS15	CPDS16/18	CPDS20	CPDS15	CPDS16/18	CPDS20
Voltage	V	48	48	36	36	36
Capacity	Ah	400	500	600	690	805
Battery Compartment	"X" Max.	mm(in)	830(32.68)	830(32.68)	830(32.68)	830(32.68)
	"Y" Max.	mm(in)	522(20.55)	630(24.8)	522(20.55)	630(24.8)
Batt.Wt.	"Z" Max.	mm(in)	627(24.69)	627(24.69)	627(24.69)	627(24.69)
	Maximum	Kg(lb)	740(1631.42)	1000(2204.62)	1100(2425.08)	1000(2204.62)
	Minimum	Kg(lb)	610(1344.82)	850(1873.93)	900(1984.16)	850(1873.93)
						900(1984.16)





HC FORKLIFT AMERICA CORPORATION

Company address:

10405-A Granite Street Charlotte,
NC 28273

Toll Free: 888-652-8395

Phone: 980-888-8335

Fax: 980-888-8336

america@hcforklift.com

www.hcforkliftamerica.com



ISO14001



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