



A Series 3-Wheel Electric Forklift

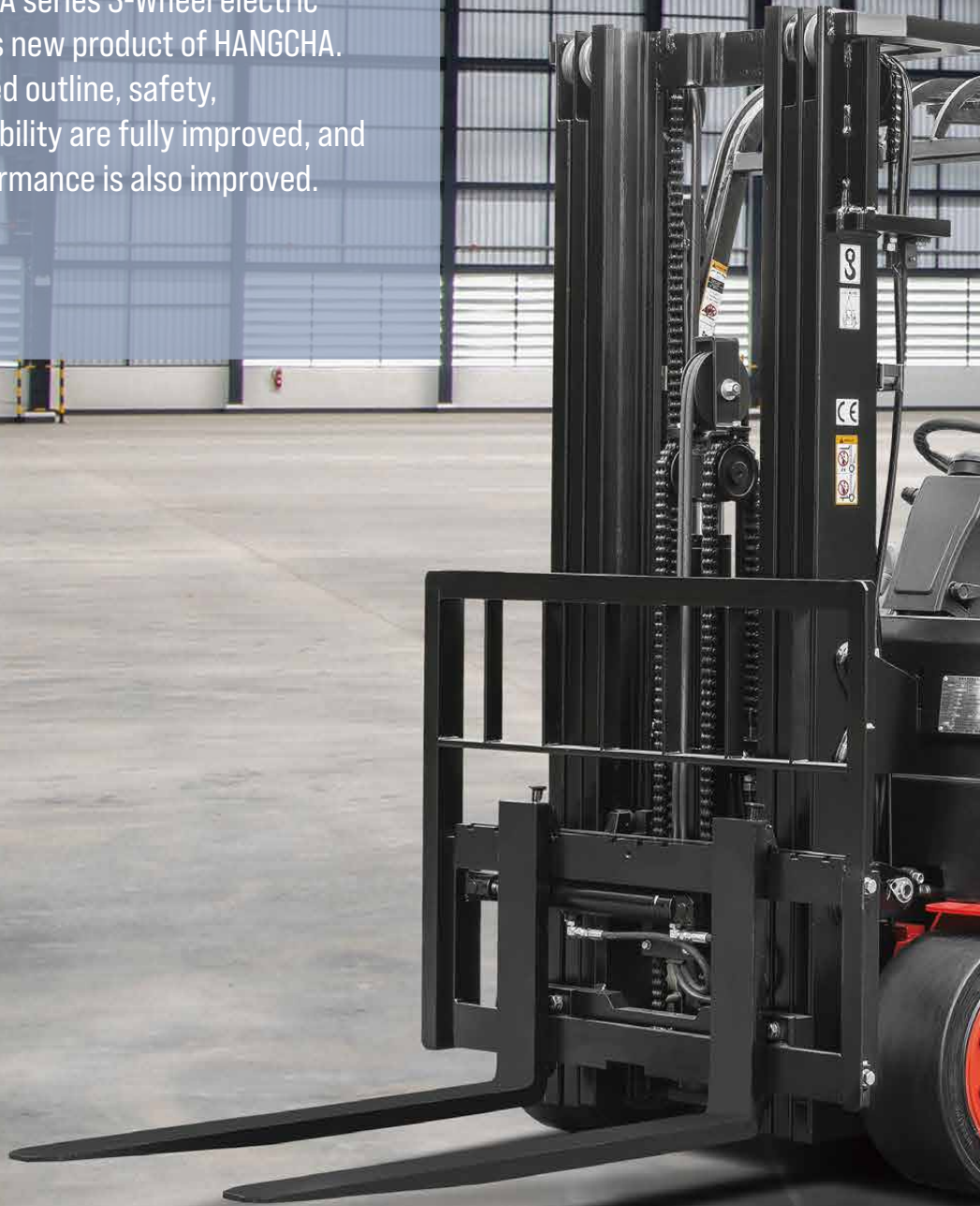
with capacities of 3,000 to 4,000lbs

The World of Hangcha



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.





A20 AC-POWER

A20 AC-POWER

HANGCHA



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.



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

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
- / Cold store protection
- / Suspension seat
- / Full closed cabin
- / Traction tyres
- / Blue spot light
- / OPS system



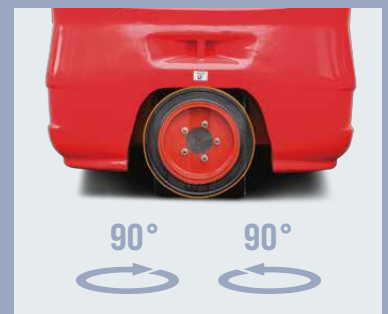
Front dual separated motors



Panoramic rearview mirror



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		CPDS15-AC6-NA		CPDS16-AC6-NA		CPDS18-AC6-NA		CPDS20-AC6-NA		
	1.2	Model		Electric(36V)	Electric(48V)	Electric(36V)	Electric(48V)	Electric(36V)	Electric(48V)	Electric(36V)	Electric(48V)	
	1.3	Power Type: Electric, Gas, Diesel, LPG		Rider seated		Rider seated		Rider seated		Rider seated		
Load capacity/rated load	1.4	Q	lb(kg)	3000(1360)		3200(1450)		3500(1630)		4000(1810)		
	1.5	c	in(mm)	24(600)		24(600)		24(600)		24(600)		
	1.6	x	in(mm)	14.2(360)		14.2(360)		14.2(360)		15(380)		
	1.7	y	in(mm)	49.2(1250)		53.5(1358)		53.5(1358)		57.7(1466)		
	1.8			6570(2980)		6878(3120)		7143(3240)		7650(3470)		
Weight	2.1		lb(kg)	8576(3890)		9040(4100)		9590(4350)		10472(4750)		
	2.2		lb(kg)	1301(590)		1367(620)		1521(690)		1587(720)		
	2.3		lb(kg)	2976(1350)		3175(1440)		3175(1440)		3373(1530)		
	2.4		lb(kg)	3594(1630)		3704(1680)		3968(1800)		4277(1940)		
	2.5		lb(kg)									
Tyres	3.1			Pneumatic		Pneumatic		Pneumatic		Pneumatic		
	3.2			18x7x12-1/8		18x7x12-1/8		18x7x12-1/8		18x8x12-1/8		
	3.3			15x4.5x11-1/4		15x4.5x11-1/4		15x4.5x11-1/4		15x4.5x11-1/4		
	3.4			2x/2		2x/2		2x/2		2x/2		
	3.5	b10	in(mm)	35.8(910)		35.8(910)		35.8(910)		35.7(906)		
	3.6	b11	in(mm)	7.3(186)		7.3(186)		7.3(186)		7.3(186)		
Dimensions	4.1	α/β	(°)	5.5/6		5.5/6		5.5/6		5.5/6		
	4.2	h1	in(mm)	78.5(1995)		78.5(1995)		78.5(1995)		78(1980)		
	4.3	h4	in(mm)	155.3(3945)		155.3(3945)		155.3(3945)		155.3(3945)		
	4.4	h2	in(mm)	5.7(145)		5.7(145)		5.7(145)		5.7(145)		
	4.5	h3	in(mm)	118.1(3000)		118.1(3000)		118.1(3000)		118.1(3000)		
	4.6	h6	in(mm)	80.3(2040)		80.3(2040)		80.3(2040)		80.3(2040)		
	4.7	l1	in(mm)	106.9(2715)		111.1(2823)		111.1(2823)		116.2(2951)		
	4.8	l2	in(mm)	70.7(1795)		74.9(1903)		74.9(1903)		80(2031)		
	4.9	b1	in(mm)	42.8(1086)		42.8(1086)		42.8(1086)		43.7(1109)		
	4.10	s>e<l	in(mm)	1.4*3.9*36.2 (35*100*920)		1.4*3.9*36.2 (35*100*920)		1.4*3.9*36.2 (35*100*920)		1.6*4.8*36.2 (40*122*920)		
	4.11			IIA		IIA		IIA		IIA		
	4.12	b3	in(mm)	39.4(1000)		39.4(1000)		39.4(1000)		39.4(1000)		
	4.13	m1	in(mm)	3.9(100)		3.9(100)		3.9(100)		3.9(100)		
	4.14	m2	in(mm)	4.3(110)		4.3(110)		4.3(110)		4.3(110)		
	4.15	Ast	in(mm)	123.4(3134)		127.4(3237)		127.4(3237)		131.6(3342)		
	4.16	Ast	in(mm)	128.2(3257)		132.3(3360)		132.3(3360)		136.4(3465)		
	4.17	Wa	in(mm)	57.2(1452)		61.2(1555)		61.2(1555)		65.4(1660)		
	Performance Data	5.1		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		fpm (mm/s)	76.8(390)/92.5(470)		74.8(380)/92.5(470)		72.8(370)/98.6(450)		68.9(350)/88.6(450)	
		5.3		fpm (mm/s)	9.1(460)/86.6(440)		9.1(460)/86.6(440)		9.1(460)/82.7(420)		9.2(5(470)/82.7(420)	
5.4			lbf(N)	2697.8(12000) /2697.8(12000)		2607.8(11600) /2565.3(11500)		2585.3(11500) /2562.8(11400)		2585.3(11200) /2562.8(11000)		
5.5			%	16/18		16/18		15/17		13/15		
5.6				Hydraulic		Hydraulic		Hydraulic		Hydraulic		
5.7				Mechanical		Mechanical		Mechanical		Mechanical		
5.8				Hydraulic		Hydraulic		Hydraulic		Hydraulic		
Drive	6.1		HP (kW)	6.4(4.8)x2 AC		6.4(4.8)x2 AC		6.4(4.8)x2 AC		6.4(4.8)x2 AC		
	6.2		HP (kW)	13.4(10)		13.4(10)		13.4(10)		13.4(10)		
	6.3		volts	36 48		36 48		36 48		36 48		
	6.4		Ah/6 hr. rate	575 400		690 500		690 500		805 600		
	6.5		Ah/6 hr. rate	575 460		690 575		690 575		805 690		
	6.6		lb(kg)	1477(670)		1785(810)		1785(810)		2116(960)		
	6.7		lb(kg)	1653(750)		1984(900)		1984(900)		2348(1065)		
Other	7.1			MOSFET AC		MOSFET AC		MOSFET AC		MOSFET AC		
	7.2		psi (bar)	2175(150)		2175(150)		2175(150)		2175(150)		

3,000~3,500lb Mast

Type	Model	Lifting height in(mm)	Overall height				Free lifting height		Front Overhang in(mm)	Tilting range		Capacity		
			Lowered in(mm)	Extended		With backrest in(mm)	Without backrest in(mm)	Forward deg		Backward deg	Load capacity at 24 in (600mm)			
				With backrest in(mm)	Without backrest in(mm)						3000lb lb(kg)	3200lb lb(kg)	3500lb 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)	
	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(4445)	160(4065)	5.7(145)	5.7(145)	14.2(360)	5.5	6	3000(1360)	3200(1450)	3500(1630)	
	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)	
	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)	
	M450	172.2(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)	
Duplex full-free 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)	
	U270	106.3(2700)	72.6(1845)	143.9(3655)	129.4(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)	
	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)	
Triplex mast	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)	3200(1450)	3400(1540)	
	N450	172.2(4500)	81.7(2075)	214.8(5455)	200.6(5095)	44.5(1130)	58.7(1490)	15.4(390)	3.5	5	2600(1180)	2800(1270)	3200(1450)	
	N480	189(4800)	85.6(2175)	226.6(5755)	212.4(5395)	48.4(1230)	62.6(1590)	15.4(390)	3.5	5	2400(1090)	2600(1180)	3000(1360)	
	N500	196.9(5000)	88.2(2240)	234.4(5955)	220.3(5595)	51(1295)	65.2(1655)	15.4(390)	3.5	5	2200(1000)	2400(1090)	2800(1270)	
	N550	216.5(5500)	94.9(2410)	254.1(6455)	240(6095)	57.7(1465)	71.9(1825)	15.4(390)	3.5	5	2000(910)	2200(1000)	2500(1130)	
	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	1800(810)	2000(910)	2200(1000)	
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	1460(660)	1600(720)	1800(860)		

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

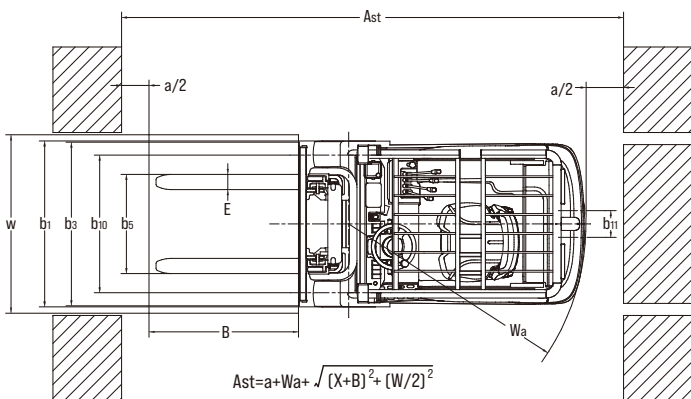
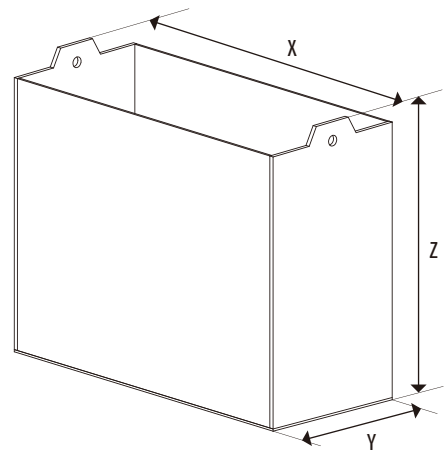
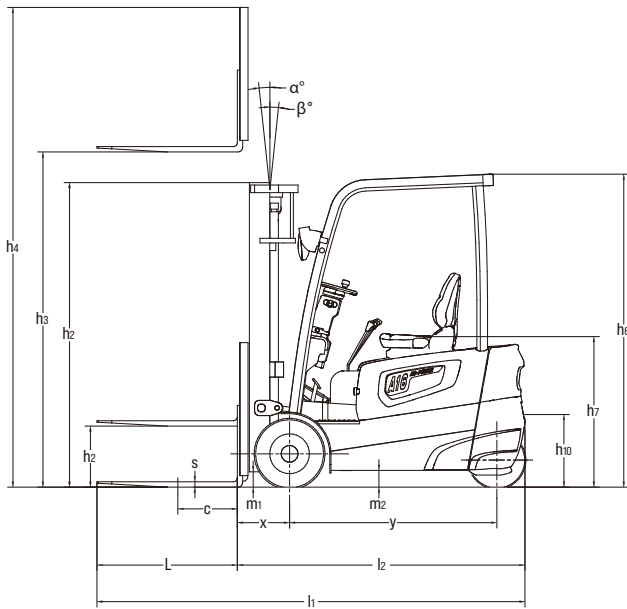
4,000lb Mast

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						lb(kg)		
											in(mm)	in(mm)	in(mm)
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	3800(1720)		
	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	3600(1630)		
	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	3600(1630)		
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(3559)	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(3859)	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(4159)	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)		
	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)		
	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)		
Triplex mast	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	3600(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(2200)	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 sideshifter minus 400lb(200kg),with integral sideshifter minus 200lb(100kg).

Battery and compartment size

Model	CPDS15	CPDS16/18	CPDS20	CPDS15	CPDS16/18	CPDS20
Voltage	48	48	48	36	36	36
Capacity	Ah	400	500	575	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)	738(29.06)	738(29.06)
	"Z" Max.	mm(in)	627(24.69)	627(24.69)	627(24.69)	627(24.69)
Batt.Wt.	Maximum	Kg(lb)	740(1631.42)	1000(2204.62)	1100(2425.08)	740(1631.42)
	Minimum	Kg(lb)	610(1344.82)	850(1873.93)	900(1984.16)	610(1344.82)



$$Ast = a + Wa + \sqrt{[X+B]^2 + [W/2]^2}$$

X: Load distance
B: Length of load or forks which is longer

