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A Series 3-Wheel Electric Forklift

with capacities of 2,600 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.





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.

Standard Specification

- / High efficiency AC driving motor
- / Multi-functions instrument
- / Front dual driving motors
- / Rubber floor mat
- / Solid tyre
- / Emergency disconnect switch
- / 2-valve inside chassis
- / 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
- / Toolbox and file folder
- / 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 sidsifter
- / Other attachments
- / Other dimension forks
- / Special carriage and backrest
- / Big capacity battery
- / Non-marking tyre
- / Battery charger
- / Battery side roll-out (Using pallet truck)
- / Fingertip control on the adjustable armrest
- / Cold store protection
- / Suspension seat
- / Full closed cabin
- / Socket for other equipment
- / Blue spot light
- / OPS system

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

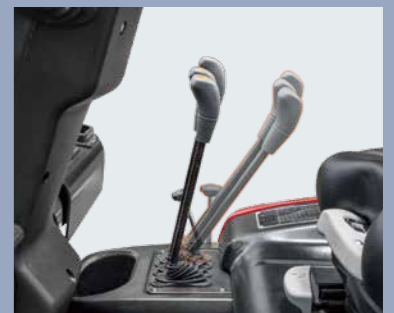
- / High power pump motor and low noise gear pump, both improve the lifting speed and work efficiency.
- / Regenerative braking during deceleration is more energy saving and effectively.



Front dual separated motors



Panoramic rearview mirror



Cover can be easily opened by adjusting the levels forward

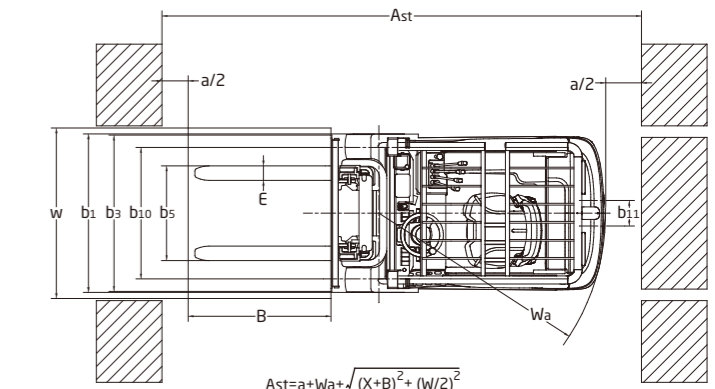
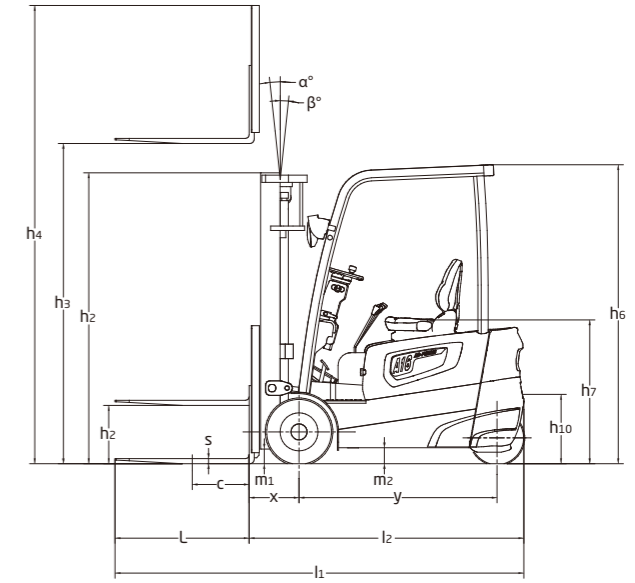


The small turning radius is suitable for narrow aisle

A Series 3-Wheel Electric Forklift Truck

			HANGCHA GROUP CO.,LTD.			
Distinguishing mark	1.1	Manufacturer				
	1.2	Manufacturers type designation	CPDS15-AC6	CPDS16-AC6	CPDS18-AC6	CPDS20-AC6
	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	seated	seated	seated	seated
Weight	1.5	Load capacity/rated load	3000	3200	3500	4000
	1.6	Load centre distance	c (in)	24	24	24
	1.8	Load distance, centre of drive axle to fork	x (in)	14.0	14.0	14.2
	1.9	Wheelbase	y (in)	49.2	53.5	57.7
Tyres: chassis	2.1	Service Weight	lbs	6575	6884	7149
	2.2	Axle loading, laden front/rear	lbs	8583/1302	9047/1368	9598/1522
	2.3	Axle loading, unladen front/rear	lbs	2978/3597	3177/3707	3177/4148
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		solid	solid	solid
Dimensions	3.2	Tyre size, front		18x7 - 8	18x7 - 8	200/50-10
	3.3	Tyre size, rear		15x4.5 - 8	15x4.5 - 8	15x4.5 - 8
	3.5	Wheels, number front rear (x = driven wheels)		2x/2	2x/2	2x/2
	3.6	Tread, front	b ₁₀ (in)	35.8	35.8	36.0
	3.7	Tread, rear	b ₁₁ (in)	6.9	6.9	6.9
	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6/6	6/6	6/6
	4.2	Height, mast lowered	h ₁ (in)	78.5	78.5	78.5
	4.3	Free lift	h ₂ (in)	5.7	5.7	5.7
	4.4	Lift	h ₃ (in)	118.1	118.1	118.1
	4.5	Height, mast extended	h ₄ (in)	155.3	155.3	155.3
	4.7	Height of overhead guard STD.	h ₆ (in)	80.3	80.3	80.3
		Height of higher overhead guard OPT.	h ₆ (in)	83.9	83.9	84.8
	4.8	Seat height	h ₇ (in)	39.4	39.4	39.4
	4.12	Coupling height	h ₁₀ (in)	19.7	19.7	19.7
	4.19	Overall length	l ₁ (in)	106.7	110.9	111.1
	4.20	Length to face of forks	l ₂ (in)	70.5	74.7	79.1
	4.21	Overall width	b ₁ (in)	42.8	42.8	44.1
	4.22	Fork dimensions	s/e/l (in)	1.4/3.9/36.2	1.4/3.9/36.2	1.6/4.8/36.2
	4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO2328 2A	ISO2328 2A	ISO2328 2A
	4.24	Fork-carriage width	b ₂ (in)	39.4	39.4	39.4
4.25	Distance between fork-arms	b ₅ (in)	7.9/39.3	7.9/39.3	9.4/39.3	
4.31	Ground clearance, laden, below mast	m ₁ (in)	3.9	3.9	3.9	
4.32	Ground clearance, centre of wheelbase	m ₂ (in)	4.3	4.3	4.3	
4.34.1	Aisle width for pallets 1000 x 1200 crossways	A _{st} (in)	123.4	127.4	131.6	
4.34.2	Aisle width for pallets 800 x 1200 lengthways	A _{st} (in)	128.2	132.3	136.4	
4.35	Turning radius	W _a (in)	57.2	61.2	65.4	
4.36	Internal turning radius	b ₁₃ (in)	24.4	26.8	28.7	
Performance Data	5.1	Travel speed, laden/unladen	mph	9.9/9.9	9.9/9.9	9.3/9.3
	5.2	Lift speed, laden/unladen	fpm	76.8/92.5	74.8/92.5	68.9/88.6
	5.3	Lowering speed, laden/unladen	fpm	90.6/86.6	90.6/86.6	92.5/82.7
	5.5	Drawbar pull, laden/unladen	lbf	764/888	742/877	719/854
	5.6	Max. Drawbar pull, laden/unladen	lbf	2698/2698	2608/2585	2585/2563
	5.7	Gradeability, laden/unladen	%	16/18	16/18	13/15
	5.8	Max. gradeability, laden/unladen	%	20/20	20/20	15/18
	5.9	Acceleration time, laden/unladen (0-10m)	s	4.6/4.2	4.7/4.3	4.8/4.4
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
	5.11	Parking brake		Mechanical	Mechanical	Mechanical
	Electric engine	6.1	Drive motor rating S2 60 min	kW	4.75x2 AC	4.75x2 AC
6.2		Lift motor rating at S3 15%	kW	9.5 AC	9.5 AC	9.5 AC
6.3		Battery acc. to DIN 43 531/35/36 A,B,C, no		DIN43531 A	DIN43531 A	DIN43531 A
6.4		Battery voltage, nominal capacity K5	V/Ah	48/400	48/500	48/600
6.5		Battery weight	lbs	1545	2030	2207
		Battery dimensions	l/b/h(in)	32.7×20.6×24.7	32.7×24.8×24.7	32.7×29×24.7
6.6		Energy consumption acc. to VDI cycle	kWh/h	4.4	4.6	5.0
Addition data		Min. battery weight	lbs	1346	1876	1986
		Max. battery weight	lbs	1655	2207	2427
	8.1	Type of drive control		MOSFET/AC	MOSFET/AC	MOSFET/AC
	9.1	Manufacturer		CURTIS	CURTIS	CURTIS
10.1	Operating pressure for attachments	bar	150	150	150	
10.2	Oil volume for attachments	l/min	35	35	35	
10.3	Hydraulic Tank - capacity (drain & refill)	gal	6.34	6.87	7.66	
10.7	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	72	73	74	
10.8	Towing coupling, type DIN		Φ24 Pin	Φ24 Pin	Φ24 Pin	

AC6: means Curtis AC traveling system with AC Pump system, full-AC system



$$A_{st} = a + W_a + \sqrt{(X+B)^2 + (W/2)^2}$$

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

Mast Specification:

NO.	Type	Model	Lifting height	Lowered overall height	Overall height		Free lifting height		Tilting range		Capacity			
					With backrest	Without backrest	With backrest	Without backrest	Forward	Backward	Load center@24Inch			
					in	in	in	in	(°)	(°)	3000lb	3200lb	3500lb	4000lb
1	Duplex wide view mast	M300	118.1	78.5	155.3	140.4	5.7	5.7	5.5	6	3000	3200	3600	4000
		M330	129.9	84.4	167.1	152.2	5.7	5.7	5.5	6	3000	3200	3600	4000
2	Duplex full-free lifting mast	U300	118.1	78.5	155.7	141.5	41.3	55.5	5.5	6	3000	3200	3600	4000
		U330	129.9	84.4	167.5	153.3	47.2	61.4	5.5	6	3000	3200	3600	4000
		U350	137.8	88.4	175.4	161.2	51.2	65.4	5.5	6	3000	3200	3600	4000
3	Triplex full-free lifting mast	N450	177.2	81.7	214.8	200.6	44.5	58.7	3.5	5	2600	2800	3200	3600
		N480	189.0	85.6	226.6	212.4	48.4	62.6	3.5	5	2400	2600	3000	3400
		N500	196.9	88.2	234.4	220.3	51.0	65.2	3.5	5	2200	2400	2800	3200
		N550	216.5	94.9	254.1	240.0	57.7	71.9	3.5	5	2000	2200	2500	3000

