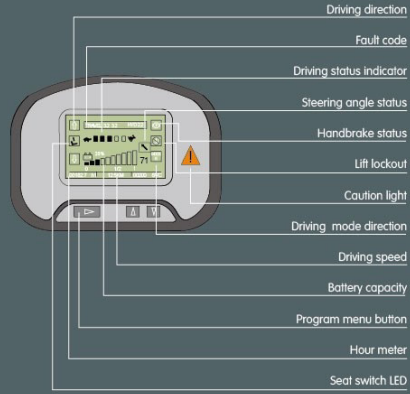




Charger technology

- > High Efficiency  
Charging efficiency higher than 95% meeting the requirements of energy saving and emissions reduction
- > Speediness  
100% charging realized in 2 hours at the soonest
- > Compatibility  
48 v / 80 v compatibility meeting the demand of different voltage levels
- > Safety  
Built-in mis-connecting protection offering self isolating function under fault; Perfect fault self checking alarm facilitating users maintenance .



CURTIS Display

Standard Configuration

- Wide view basic mast
- Standard fork
- II (III) stage fork carriage
- Backrest
- Control valve
- Battery
- Standard seat
- Overhead guard
- Overhead guard rain cover
- LCD dashboard
- Pneumatic tyre ( 1-3t )
- Solid tyre (3.5t)
- Traction pin
- Tool box
- LED lamp, strobe caution light
- Rear driving handle with horn button

Optional device

- Carpet boom
- Driver's cab
- Lifting hook
- Lifting boom
- Tip-over fork
- Back view mirror
- Side shifting
- Paper roll clamp
- Warning light (rotating or buzzing)
- Solid tyre ( 1-3t )
- Rear working light
- Steel protection net
- Multipurpose drum clamp
- Load stabilizer
- Widen fork carriage
- Lengthening fork
- Load pusher
- Fork sleeve
- Rotate clamp
- Double tyre protection device
- Auxiliary hydraulic valve component
- Tilting/steering cylinder cover
- Coloring tyre (white/green)
- Wide view two/three stage full free mast
- Customised colour
- Turn automatic deceleration function
- Battery lifting sling



**HELI** 安徽合力股份有限公司  
ANHUI HELI CO., LTD.

ADD: NO.668 Fangxing Street, Economical Development Zone, Hefei, P.R.China  
TEL: (86 551) 63639068(America) 63639258(Europe) 63639358(Asia) 63682105(Africa & Middle East) 63639530(Warehouse Equipment) 63639531(Wheel loader)  
FAX: (86 551) 63639966  
WEBSITE: <http://www.helichina.net>

AUTHORIZED DEALER

\* Our products are subject to improvements and changes without notice.



**1-3.5t**  
G series Lithium Battery Powered Counterbalanced Forklift Truck



# G 1-3.5t

G series Lithium Battery Powered Counterbalanced Forklift Truck

**G series** / INTELLIGENT ENVIRONMENT-FRIENDLY



## Environment Friendliness

- > Zero emission
- > Low noise
- > No heavy metal
- > No corrosion
- > No acid mist volatilization

## Maintenance Free

- > Unnecessary of fluid adding and dust proofing
- > Daily maintenance free
- > Manual maintenance free

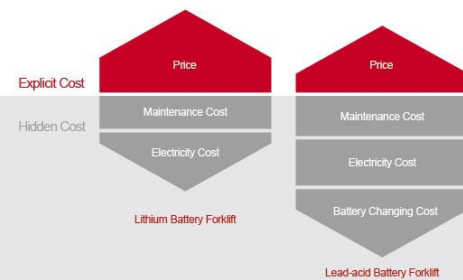
## Long Service Life

- > Over 75% capacity reserved after 4000 shifts operation
- > Longer service life than lead-acid battery in equal working condition
- > 5 years quality guarantee

## High Efficiency and Energy Saving

- > 2 hours charging meet 6-8 hours working demand
- > High-energy density, self discharging rate lower than 1% per month
- > 95% energy conversion rate, superior charging and discharging performance
- > Flexible to charge, easy to operate, no impact on battery life
- > Unnecessary to change battery, cost saving & operation safety

The superiority of HELI lithium battery forklift truck is embodied in the use-cost within product lifecycle. Compared with lead-acid battery forklift truck, lithium battery forklift truck is more convenient for multiple working shifts. It has lower implicit cost and more economical total running cost.



## Superior Performance In Low Temperature

- > Discharging efficiency up to 88% in -20°C
- > Discharging efficiency up to 70% in -40°C
- > Long battery life in cold store

## High Safety

- > "Multiple node safety closed circuit protection" realizing truck real time closed circuit protection in variable conditions
- > "Lock affirming" function during charging avoiding "hot connecting and disconnecting" operation effectively
- > "Whole system emergency button" to disconnect the truck control system and bms power quickly ensuring truck safety





# G 1-3.5t

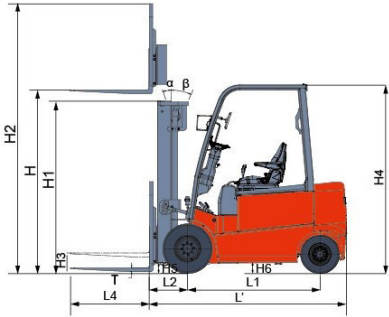
G Series Lithium Battery Powered Counterbalanced Forklift Truck



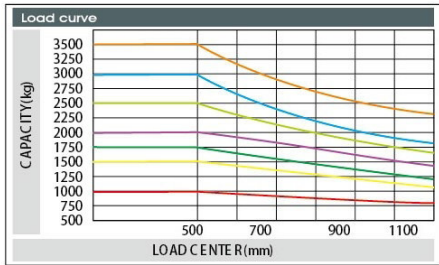
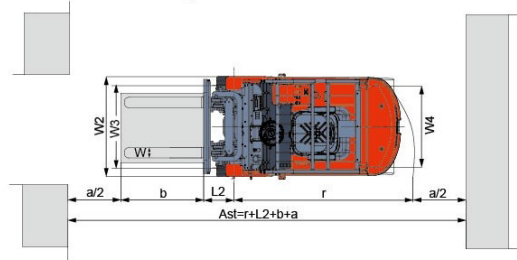
## Manufacturer's Data and Design Characteristics

characteristics			<b>HELI</b>							
1.01	manufacturer									
1.02	model		CPD10	CPD15	CPD18	CPD20	CPD25	CPD30	CPD35	
1.03	configuration number		GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	GC1Li(P)/GD1Li(P)	
1.04	rated capacity	Q kg	1000	1500	1750	2000	2500	3000	3500	
1.05	load center distance	c mm	500	500	500	500	500	500	500	
1.06	power mode		lithium battery		lithium battery		lithium battery		lithium battery	
1.07	driving mode		seated		seated		seated		seated	
1.08	wheel base	L1 mm	1380	1380	1380	1550	1550	1685	1685	
tyre										
2.01	tyre type		pneumatic tyre	pneumatic tyre	solid/pneumatic tyre	pneumatic tyre	pneumatic tyre	pneumatic tyre	solid tyre	
2.02	Wheels, number front rear (X=driven wheels)		2X/2	2X/2	2X/2	2X/2	2X/2	2X/2	2X/2	
2.03	front wheel base	W3 mm	910	910	910	960	960	1000	1000	
2.04	rear wheel base	W4 mm	920	920	920	950	950	950	950	
2.05	tyre (front)		6.00-9-10PR	6.00-9-10PR	6.00-9	23 x 9-10-16PR	23 x 9-10-16PR	28 x 9-15-12PR	28 x 9-15	
2.06	tyre(rear)		16 x 6-8-10PR	16 x 6-8-10PR	16 x 6-8-10PR	18 x 7-8-14PR	18 x 7-8-14PR	18 x 7-8-14PR	18 x 7-8	
size										
3.01	front overhang		L2 mm	390	390	390	434	434	485	490
3.02	mast tilt angle, front/rear		α/β °	6/8	6/8	6/8	6/8	6/8	6/10	6/10
3.03	height with mast retraction		H1 mm	1985	1985	1985	1995	1995	2075	2180
3.04	free lifting height		H3 mm	145	145	145	145	145	145	150
3.05	Max. lifting height		H mm	3000	3000	3000	3000	3000	3000	3000
3.06	Mast height, extended		H2 mm	4030	4030	4030	4042	4042	4230	4230
3.07	overhead guard height		H4 mm	2130	2130	2130	2150	2150	2215	2215
3.08	fork size:thickness×width×length		T×W×L4 mm	32 × 100 × 770	35 × 100 × 920	35 × 100 × 920	40 × 122 × 920	40 × 122 × 1070	45 × 125 × 1070	50 × 125 × 1070
3.09	fork carriage, DIN standard			2A	2A	2A	2A	2A	3A	3A
3.10	truck body length (fork excluded)		L' mm	2070	2070	2070	2285	2295	2545	2550
3.11	truck body width		W2 mm	1086	1086	1086	1185	1185	1238	1238
3.12	turning radius		r mm	1750	1750	1750	2000	2060	2240	2260
3.13	clearance between mast and ground		H5 mm	90	90	80	110	110	135	135
3.14	clearance between wheel base center and ground(loaded)		H6 mm	80	80	75	115	115	145	145
3.15	right angle stacking aisle width (pallet1000x1000mm, clearance 200mm)		Ast mm	3390	3390	3390	3635	3695	3925	3950
3.16	right angle stacking aisle width (pallet1200x1200mm, clearance 200mm)		Ast mm	3590	3590	3590	3835	3895	4125	4150
performance										
4.01	travelling speed: loaded/unloaded		km/h	15.0/16.0	15.0/16.0	15.0/16.0	14.5/15.0	14.5/15.0	15.0/15.5	14.5/15.0
4.02	lifting speed: loaded/unloaded		mm/s	290/450	270/450	280/530	280/490	280/490	280/450	250/440
*4.02	lifting speed: loaded/unloaded		mm/s	410/600	400/600	380/600	350/510	350/510	340/460	325/450
4.03	lowering speed: loaded/unloaded		mm/s	400/500	400/500	400/500	410/490	410/490	-/500	-/500
4.04	gradeability (loaded)		%	20	19	17	20	20	15	12
4.05	Max. traction force (loaded)		N	10000	10000	10000	16000	16500	15600	17500
4.06	acceleration time (10m) loaded/unloaded		s	5.0/4.4	5.2/4.5	5.2/4.6	4.6/4.4	4.8/4.6	5.0/4.7	5.2/4.9
weight										
5.01	total weight (with /without battery)		kg	2700/2350	2955/2605	3105/2755	3615/3215	4035/3635	4760/4200	5330/4770
5.02	axle load: unloaded, front/rear		kg	1420/1280	1370/1585	1375/1730	1805/1810	1790/2245	2270/2490	2410/2920
5.03	axle load: loaded, front/rear		kg	3130/570	3870/585	4255/600	5015/600	5795/740	7005/755	8020/810
battery										
6.01	battery voltage/capacity K <sub>2</sub>		V/Ah	48/400	48/400	48/400	48/500	48/500	80/400	80/400
6.02	battery weight		kg	350	350	350	400	400	560	560
motor and controller										
7.01	drive motor power-60 minutes			8.2	8.2	8.2	11.5	11.5	16.6	16.6
7.02	lifting motor power-15 minutes		kW	7.5	7.5	8.6	10.5	10.5	13	13
*7.02	lifting motor power-15 minutes		kW	10.6	10.6	10.6	15	15	13.5	13.5
7.03	drive motor controlling mode			MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC
7.04	lifting motor controlling mode			MOSFET/DC	MOSFET/DC	MOSFET/DC	MOSFET/DC	MOSFET/DC	MOSFET/DC	MOSFET/DC
*7.04	lifting motor controlling mode			MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC
others										
8.01	service brake/parking brake			hydraulic/mechanical	hydraulic/mechanical	hydraulic/mechanical	hydraulic/mechanical	hydraulic/mechanical	hydraulic/mechanical	hydraulic/mechanical
8.02	hydraulic system working pressure		Mpa	14.5	14.5	17.5	17.5	17.5	21	21
8.03	type of drive control			CURTIS	CURTIS	CURTIS	CURTIS	CURTIS	CURTIS	CURTIS

NOTE: \*refers to the parameters and configuration with AC lifting sytem



Ast. Right angle stacking aisle width  
 a: Clearance  
 b: Load Length



CPD10 CPD15 CPD18 CPD20 CPD25 CPD30 CPD35

**Note:** The vertical axis stands for load capacity and the horizontal axis stands for load center which is calculated from the front surface of the forks to the gravity of the standard load. the standard load means a cubic with 1000mm edge length. When mast is tilted forward, using non-standard forks or loading large goods, the load capacity will be reduced. The load capacity of standard mast at different load center can be known from this load chart.

**WIDE VIEW MAST**

mast model	Max. lifting height (mm)	load capacity (load center 500mm) ( kg )							mast overall height (fork to the ground) (mm)				mast tilt angle ( α / β ) ( ° )	
		1t	1.5t	1.8t	2t	2.5t	3t	3.5t	1-1.8t	2-2.5t	3t	3.5t	1-2.5t	3-3.5t
M200	2000	1000	1500	1750	2000	2500	3000	3500	1485	1495	1570	1680	6/8	6/10
M250	2500	1000	1500	1750	2000	2500	3000	3500	1735	1745	1820	1930	6/8	6/10
M300	3000	1000	1500	1750	2000	2500	3000	3500	1985	1995	2070	2180	6/8	6/10
M330	3300	1000	1500	1750	2000	2500	3000	3500	2135	2145	2220	2330	6/8	6/10
M350	3500	1000	1500	1750	2000	2500	3000	3500	2235	2245	2320	2430	6/8	6/10
M370	3700	1000	1500	1750	2000	2500	3000	3400	2335	2345	2420	2530	6/8	6/6
M400	4000	1000	1500	1750	2000	2500	2950	3350	2535	2545	2620	2730	6/5	6/10
M425	4250	1000	1500	1750	2000	2500	2850	3250	2660	2670	2745	2855	6/5	6/6
M450	4500	1000	1400	1600	1900	2300	2750	3100	2785	2795	2870	2980	6/5	6/10
M500	5000	1000	1200	1350	1800	1950	2400	2650	3035	3045	3120	3230	6/5	6/6
M550	5500	900	1100	1200	1400	1550	2250	2500	3335	3345	3420	3530	3/3	3/6
M600	6000	800	800	850	950	1100	1500	1550	3585	3595	3670	3780	3/3	3/6

Note: (1) \*refers to rated capacity with dual front tires or widen tires;

**WIDE VIEW FULL FREE 2-STAGE MAST**

mast model	Max. lifting height (mm)	load capacity (load center 500mm) ( kg )							mast overall height (mm)				free lifting height (with backrest)(mm)				mast tilt angle ( α / β ) ( ° )	
		1t	1.5t	1.8t	2t	2.5t	3t	3.5t	1-1.8t	2-2.5t	3t	3.5t	1-1.8t	2-2.5t	3t	3.5t	1-2.5t	3-3.5t
ZM200	2000	1000	1500	1750	2000	2500	3000	3500	1485	1495	1570	1680	478	447	380	500	6/8	6/10
ZM250	2500	1000	1500	1750	2000	2500	3000	3500	1735	1745	1820	1930	728	697	630	750	6/8	6/10
ZM300	3000	1000	1500	1750	2000	2500	3000	3500	1985	1995	2070	2180	978	947	880	1000	6/8	6/10
ZM330	3300	1000	1500	1750	2000	2500	3000	3500	2135	2145	2220	2330	1128	1097	1030	1150	6/8	6/10
ZM350	3500	1000	1500	1750	2000	2500	3000	3500	2235	2245	2320	2430	1228	1197	1130	1250	6/8	6/10
ZM370	3700	1000	1500	1750	2000	2500	3000	3400	2335	2345	2420	2530	1328	1297	1230	1350	6/8	6/6
ZM400	4000	1000	1500	1750	2000	2500	2950	3350	2535	2545	2620	2730	1528	1497	1430	1550	6/5	6/6
ZM425	4250	1000	1500	1750	2000	2500	2850	3250	2660	2670	2745	2855	1653	1622	1555	1675	6/5	6/6
ZM450	4500	1000	1400	1600	1900	2300	2750	3100	2785	2795	2870	2980	1778	1747	1675	1800	6/5	6/6
ZM500	5000	1000	1200	1350	1800	1950	2400	2650	3035	3045	3120	3230	2028	1997	1930	2050	6/5	6/6
ZM550	5500	900	1100	1200	1400	1550	2250	2500	3335	3345	3420	3530	2328	2297	2230	2350	3/3	3/6
ZM600	6000	800	800	850	950	1100	1500	1550	3585	3595	3670	3780	2578	2547	2480	2600	3/3	3/6

Note: (1) \*refers to rated capacity with dual front tires or widen tires ;  
 (2) 1-1.8t: free lifting height 365mm increase without backrest ;  
 (3) 2-2.5t: free lifting height 397mm increase without backrest ;  
 (4) 3t: free lifting height 490mm increase without backrest ;  
 (5) 3.5t: free lifting height 412mm increase without backrest ;

**WIDE VIEW FULL FREE 3-STAGE MAST**

mast model	Max. lifting height (mm)	load capacity (load center 500mm) ( kg )							mast overall height (mm)				free lifting height (with backrest)(mm)				mast tilt angle ( α / β ) ( ° )	
		1t	1.5t	1.8t	2t	2.5t	3t	3.5t	1-1.8t	2-2.5t	3-3.5t	1-1.8t	2-2.5t	3t	3.5t	1-2.5t	3-3.5t	
ZSM360	3600	1000	1500	1750	2000	2500	3000	3400	1780	1975	1930	690	774	740	745	6/8	6/6	
ZSM400	4000	1000	1500	1750	2000	2500	2900	3250	1915	1920	2055	905	900	865	870	6/5	6/6	
ZSM435	4350	1000	1450	1650	2000	2450	2750	3150	2030	2045	2180	1020	1024	990	995	6/5	6/6	
ZSM450	4500	1000	1400	1600	2000	2300	2700	3000	2080	2095	2230	1070	1074	1040	1045	6/5	6/6	
ZSM470	4700	1000	1350	1550	2000	2200	-	-	2150	2160	-	1070	1140	-	-	6/5	-	
ZSM480	4800	1000	1300	1500	1900	2050	2600	2800	2180	2195	2330	1140	1174	1140	1145	6/5	6/6	
ZSM500	5000	1000	1200	1300	1800	1950	2400	2650	2280	2295	2430	1270	1274	1240	1245	6/5	6/6	
ZSM540	5400	1000	1000	1050	1400	1400	1550	2250	2405	2420	2555	1395	1400	1365	1370	3/3	3/6	
ZSM600	6000	700	750	750	950	1100	1550	1550	2630	2645	2780	1620	1624	1590	1595	3/3	3/6	
ZSM650	6500	1000	1100	1300	1500	1800	2150	2300	2830	2835	-	1810	1814	-	-	3/3	3/6	
ZSM700	7000	900	950	950	1100	1200	-	-	3015	3105	-	2005	2084	-	-	3/3	-	

Note: (1) \*refers to rated capacity with dual front tires or widen tires ;  
 (2) 1-1.8t: free lifting height 480mm increase without backrest ;  
 (3) 1-1.8t: free lifting height 400mm increase without backrest when assembled with pulley block ;  
 (4) 2-2.5t: free lifting height 451mm increase without backrest ;  
 (5) 3-3.5t: free lifting height 520mm increase without backrest ;

**LITHIUM BATTERY**

model	battery	voltage(V)	capacity(Ah)
CPD10/CPD15/CPD18	standard	48	400
	optional	48	500
	standard	48	500
CPD20/CPD25	optional	48	600
	standard	80	750
CPD30/CPD35	standard	80	400
	optional	80	500