

HELI合力

CPD13SH/15SH

A2G2/A2LIG2



1.3-1.5 t

G2 series three wheel counterbalance
forklift truck with rear drive wheels

**G2 series 1.3-1.5t rear-drive
three-wheel electric forklift**

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1. Briefing

In recent years, the market share of electric forklifts has increased significantly, and rear-drive three-wheel electric forklifts occupy a place in the market segment with excellent passability and economy. Especially in the European market, there is more demand for rear-drive three wheel.

The G2 series rear-drive three-wheel meets the requirements of EN 1175:2020 and is CE/UKCA certified. Comply with TSG 81-2022 new safety technical regulations. The appearance of the whole vehicle is a family PI styling design, which is more acceptable to the market.

The G2 series newly developed **lithium battery** models fill the gap of the company's 1.3-1.5t lithium battery rear-drive three-wheel product and improve its competitiveness in the market segment.



2. Product model

Models
Configuration

Models	Controller	Controller codename	Battery capacity as standard	Drive motor	Lifting motor
CPD13SH-A2G2	ZAPI full AC electronic control	2	48V/315AH domestic lead-acid battery	WANXIN 6KW	WANXIN 8KW
CPD15SH-A2G2			48V/360AH domestic lead-acid battery		
CPD13SH-A2LiG2			CALT 48V/228AH lithium battery pack		
CPD15SH-A2LiG2					



Models	performance	Plan to replace older products
CPD13SH-A2G2 CPD13SH-A2LiG2	Laden/unladen driving: 12/12.5km/h Laden/unladen lifting: 290/480mm/s Laden/unladen climbing: 13%/20%	CPD13SH-GB2/3 CPD15SH-GB2/3
CPD15SH-A2G2 CPD15SH-A2LiG2	Laden/unladen driving: 12/12.5km/h Laden/unladen lifting: 280/480mm/s Laden/unladen climbing: 11%/18%	---

1. Structural and performance advantages

2. Operation comfort

3. Long battery life



1. Structural features



2. Performance benefits

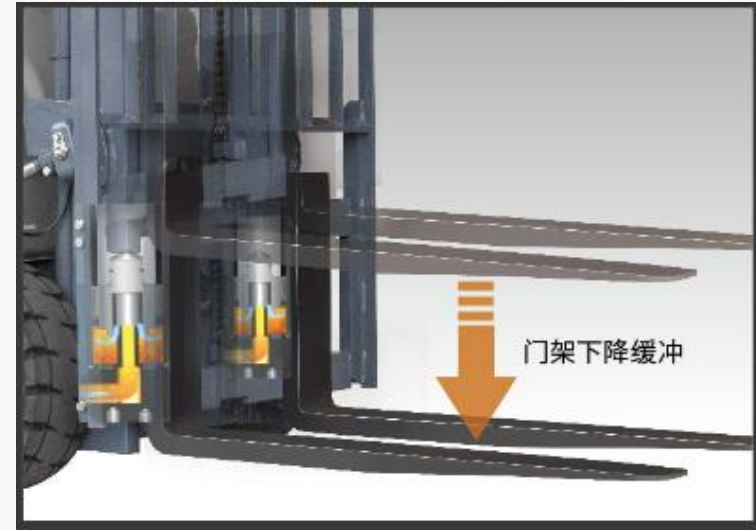
Comparison of the main performance parameters of G2 series 1.3-1.5t rear-drive three-wheel forklift					
manufacturer		HELI		Jungheinrich	
Model		CPD13SH-A2(Li)G2	CPD15SH-A2(Li)G2	EFG113	EFG115
Rated lifting capacity	Q (kg)	1300	1500	1250	1500
Overall length	(mm)	1800		1736	1790
Overall width	(mm)	990 (1060*)		990	
Overhead guard height	(mm)	2090		2090	
Turning radius	(mm)	1470		1401	1455
Travel speed load/unloaded	km/h	12/12.5		12/12.5	
Lifting speed load/unloaded	mm/s	290/480	280/480	250/500	
Climbing ability (loaded)	%	13	11	11	10.5
Battery capacity (lead-acid models)	V/Ah	48/315	48/360	24/805	24/840
Battery capacity (lithium-ion models)	V/Ah	48/228	48/228	无	

When the three-stage mast is selected, the vehicle width is 1060mm



3. Operating comfort

- The front view is wide
- Right-mounted operated stem
- The ratchet type hand brake realizes different braking forces on hills and flat, reducing driver fatigue
- Equipped with mast cushioning to improve the driver's operating comfort.



3. Operating comfort

- The steering force has been tested to be only 8N, and the light steering feel is 5N lower than that of the original model.
- Interactive large-screen color screen instrument, more convenient observation and richer display.
- The instrument panel housing is compact and flexible to operate.



3. Operating comfort



- Increase the driver's legroom, and the front plate of the battery is moved back by **40mm** to improve operating comfort.



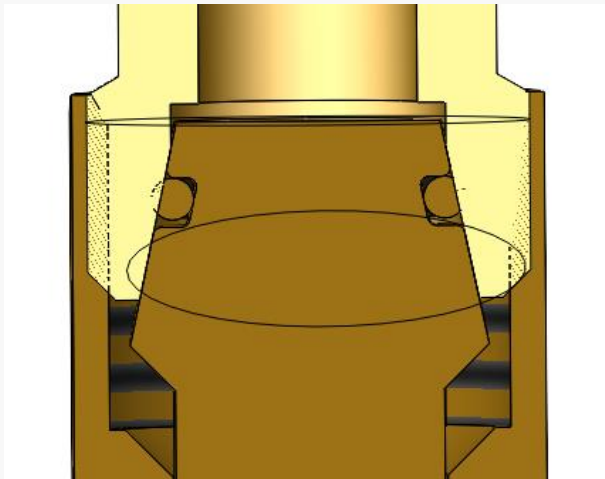
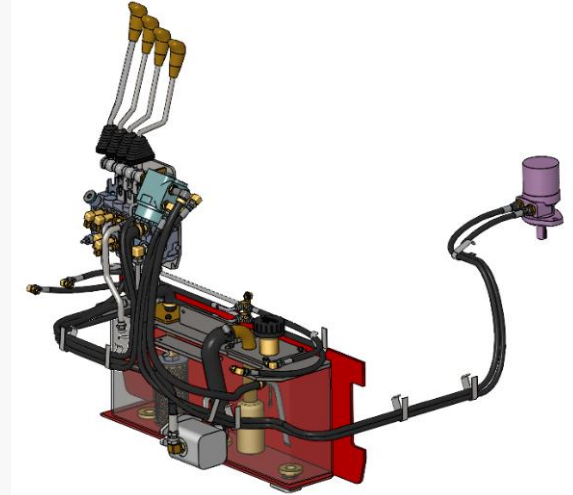
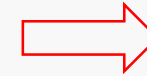
- The electronic control and electrical components are tiled and installed on the counterbalance, which has good heat dissipation performance and is convenient for maintenance.



3. Operating comfort

- 24° cone seal, more reliable;
- Ultra-low torque steering gear, more labor-saving;
- Quantitative pump full load sensitive hydraulic system, more energy saving!

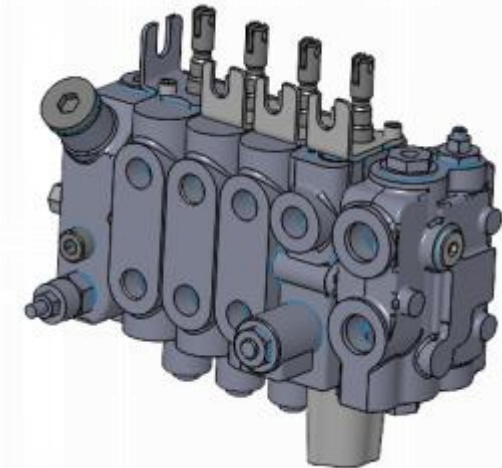
Full load sensitive hydraulic system



24° cone seal



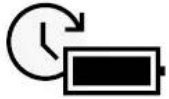
Ultra-low torque steering gear



Integrated multi-way valve



4、Long battery life



Models	Battery capacity as standard	Follow the GB route Fully charged state Job duration	Maximum battery capacity	Follow the GB route Fully charged state Job duration
CPD13SH-A2G2	48V/315Ah	7.0h	48V/375Ah	8.3h
CPD15SH-A2G2	48V/360Ah	7.8h	48V/375Ah	8.1h
CPD13SH-A2LiG2	48V/228Ah	7.0h	48V/456Ah	14.0h
CPD15SH-A2LiG2	48V/228Ah	6.8h	48V/456Ah	13.6h

Note:

Lithium battery - working condition K value is 2.5

lead-acid - working condition K value is 2





Improved vehicle efficiency



- The vehicle voltage is upgraded to 48V, the charging efficiency is higher, the lead-acid and lithium battery are shared on the platform, and the advantages of lithium battery fast charging are fully utilized;

Lithium battery charging time and energy consumption estimation

	Capacity (Ah)	Charging power consumption (kWh)	Charging time(h)
Standard capacity	48V/228Ah	11	1.2
Optional capacity	48V/456Ah	21.9	2.2



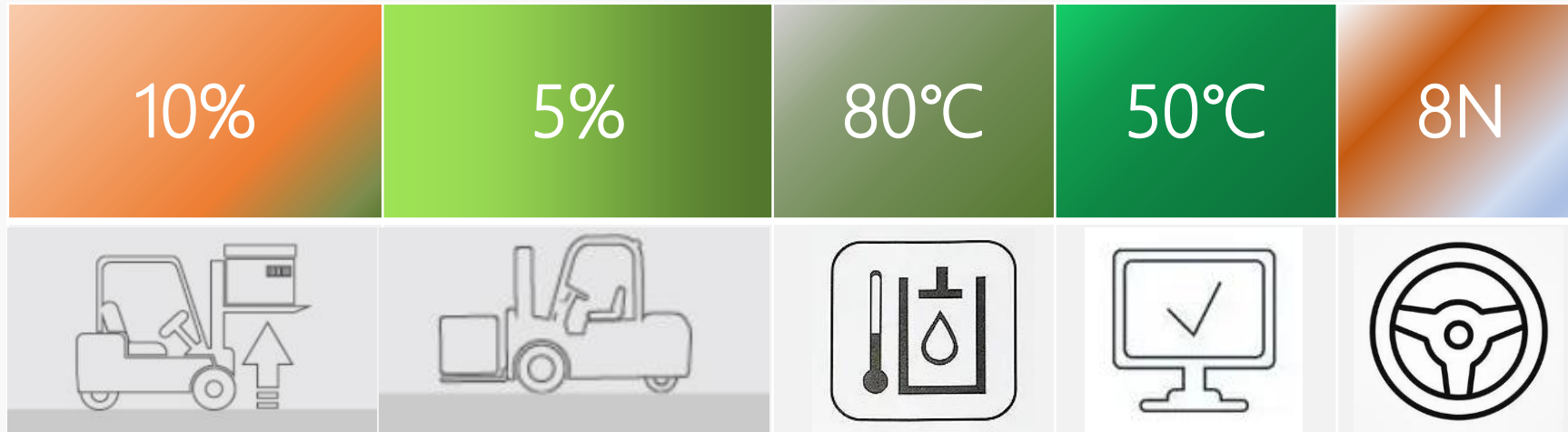
- Lithium batteries can be used with charging, and can be charged by using the shift gap to achieve uninterrupted operation of a single vehicle;





Improved vehicle efficiency

- Compared with the original model, the driving efficiency is increased by more than 10%, the lifting efficiency is increased by 5%, the ultra-low hydraulic oil temperature and electronic control temperature, and the sealing components and electrical components are stable and reliable;



Battery and charger selection



Battery,Charger

Battery voltage/Capacity	48V/315	48V/345	48V/360	48V/375
CPD13SH	●	○	○	○
CPD15SH	-	-	●	○
Charger	D48V50A-L160GB38			

Note: ● standard ;○ optional;-

Lithium battery、Charger

Brand	HEDING			PENGCHENG			
Battery voltage/Capacity	202	280	404	228	302	346	456
CPD13SH	○	○	○	●	○	○	○
CPD15SH	○	○	○	●	○	○	○
Lithium battery which heats itself automatically at low temperatures					●		
Charger	D48V200ALi-123、D48V200ALi-423						

Note: ● standard ;○ optional;-



1. configuration options



Configurations		
Safety	Rear handle with horn for truck reversing	●
	OPS(travelling+lifting+tilting+attachment)(lowering is not included)	●
	Full set of OPS	○
	Safety switch for seat belt	○
	Hydraulic valve overload protection device	●
	Dry powder extinguisher (0.5kg)	○
	Dry powder extinguisher (2kg)	○
	Backward buzzer	●
	Reversing speaker (Chinese)	○
	Electronic upper buffering	○
	Wide- angle central rear view mirror	●
	Rearview mirror on two sides+ Center wide angle rearview mirror	○
	Comfort	Semi-enclosure seat
Full suspension seat		○
Mechanical control valve		●
Fan		○
Cab/Windshields	Front windshield (with wiper/blow can)	○
	Rear windshield (with wiper/washer)	○
	Top windshield (without fan)	○
Lings	without rear working light or rear blue light	●
	LED rear working lamp (one)	○
	Rear LED red/blue spot lamp	○
	Left, right and rear blue bar	○
	Fixed type LED flicker warning lamp	●
	Fixed type LED rotating warning lamp	○
Others	Fixed type LED rotating buzzer warning lamp	○
	Peng Cheng battery	●
	He Ding battery	○
	Solid tyre	●
	Traceless solid tyre	○
	Metric screw thread	●
	American screw thread	○
	HELI package	●
	Neutral package	○
	Chinese plates	●
	English plates	○
	Customized plates	○
Universal keys (four keys)	○	
FICS standard type (domestic)	●	

Note: "●" standard; "○" optional.



2. Configuration of the main parts of the whole vehicle

Model		CPD13		CPD15	
		A2G2	A2LiG2	A2G2	A2LiG2
Standard configuration	Mastry height(mm)	3000		3000	
	Steering axle	HELI		HELI	
	Transaxle	HELI		HELI	
	Drive motor	WANXIN AC motor		WANXIN AC motor	
	Lifting motor	WANXIN AC motor		WANXIN AC motor	
	Electronic control	ZAPI		ZAPI	
	accumulator	Domestic 48V/315Ah	HELI 48V/228Ah	Domestic 48V/360Ah	HELI 48V/228Ah
	instrument	Qinli color screen instrument		Qinli color screen instrument	
	lights	Full LED light, integrated front combination light, Integrated three-color combination taillight		Full LED light, integrated front combination light, Integrated three-color combination taillight	
	Steering axle	HELI		HELI	
	tyre	Forward solid tire		Forward solid tire	
	seat	HELI		HELI	
	Main contactor	Albright, UK		Albright, UK	
	accelerator	Conchys, Jiachen, Inco, Deep Sea		Conchys, Jiachen, Inco, Deep Sea	
	Voltage converters	Huawei/Qinli		Huawei/Qinli	
	Steering gear	Jining EATON ultra-low torque steering gear		Jining EATON ultra-low torque steering gear	
	Multi-way valve	Hefei Changyuan/Tianjin Shimadzu		Hefei Changyuan/Tianjin Shimadzu	
Gear pumps	Tianjin Shimadzu		Tianjin Shimadzu		



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Thanks!



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