

HELI

CPD15/18/20/25 /30/35/38

A3H4-M A5H4-S/M A5XH4-S

H4 SERIES



1.5-3.8 t

H4 Series Battery Powered
Counterbalance Forklift truck

Lead & Lithium Are Ready To Go.

H4 series 1.5-3.8 t battery powered counterbalance forklift truck emerge as the times require.

People oriented design concept / Inheritance family design concept
seek breakthrough in a appearance / showing dynamic charm in design details



Comfort and energy saving

01-02

The user experience is fully considered, and the superior operating space design provides high driving comfort.

Stable and Reliable

03-04

CAE analysis, component bench test and whole truck strengthening test are used to ensure reliability.

Intelligent security

05

Intelligent control and protection improve the safety of drivers.

Convenient maintenance

06

More convenient maintenance operation improves the maintenance efficiency of after-sale services.

Comfort and energy saving

The user experience is fully considered, and the superior operating space design provides high driving comfort.

Wide view mast design, wide front view

The big handle and the superspacious cab design are suitable for people of different heights.

Steering wheel start steering (optional)

P, E, S three speed regulation

P	Powerful	Multi gear performance mode can be freely selected according to actual working conditions.
E	Economics	
S	Energy saving	



The whole truck is equipped with LED lighting system as standard, with high brightness, long service life and more energy saving

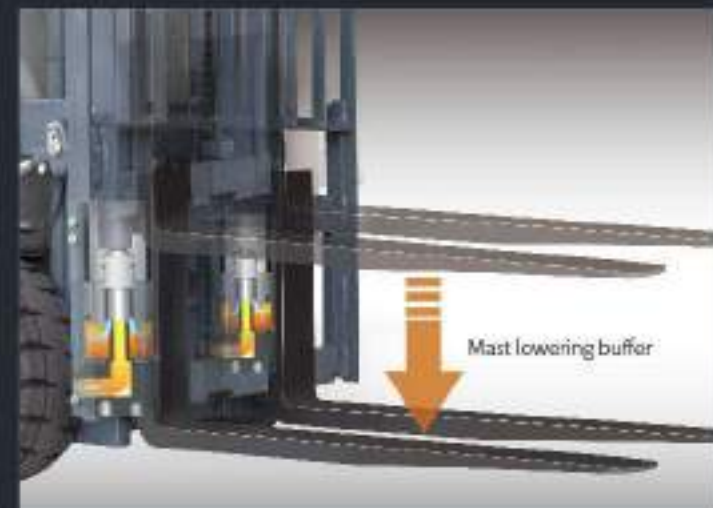
Reversing horn handle (s optional, M standard)



Semi enclosed shock-absorbing seat offers high comfort.



Electric special pattern tyre has low driving damping.



Mast lowering buffer



Gantry lifting buffer (optional)

Right set operating valve stem offers good operation comfort.

Intelligent color screen instrument offers more friendly human-computer interaction.



Graphical interface design / Chinese fault display / integrated handheld unit function / optional integrated vehicle networking function



Full package design of instrument panel; Water cupholder, mobile phone storage space, USB interface (optional for S, standard for M)

Stable and Reliable

CAE analysis, component bench test and whole truck strengthening test are used to ensure reliability.

Reliable components



Steering axle:
Cast axle body, tapered roller bearing



Drive axle:
integral brake drum, integral cast axle housing, half shaft oil seal design, high-precision gear with large coincidence



Mast:
Borrowing the main components of mature mast of internal combustion forklift truck

Sheet metal stamping side cover

All metal anti-skid pedal



Good lateral stability of the whole truck and guaranteed safety during operation



High rotation point steering axle



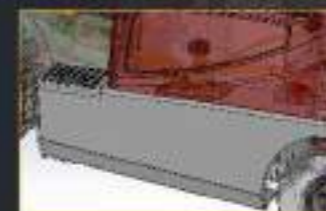
Middle and sink layout of the battery



Good heat dissipation



The electric control is placed on the counterweight.



Side mounted welded oil tank

Test verification



Rain test

Simulate the operation under 15mm rainstorm, reach IP54 protection grade, and meet the needs of outdoor operation.



Cold storage test

The whole truck can run continuously after 6 hours of alternating operation in the -20℃ cold storage and 12 hours of parking in the cold storage.



Vehicle vibration test

The vibration frequency of the whole truck is tested to optimize and improve the operating comfort.



Reliability endurance test

800 hour strengthening of the whole truck (including climbing, rail, bumpy road, etc.)

Intelligent security

Intelligent control and protection improve the safety of drivers.

- Dual core controller
- OPS protection
(standard driving OPS / optional hydraulic OPS)
- Hydraulic burst protection, forward tilting self-locking protection
- Electrical multiple protection
(short circuit protection, overheat protection, low power protection, sequence protection)
- Parking safety reminder
- Reminder through slow sliding on ramp
- Turning automatic deceleration (optional)



- Flexible battery charging mode (can be charged with the truck or replaced)
- Pump, pump motor, controller and other main electrical components are located on the counterweight, which is convenient for maintenance.
- Friendly interface



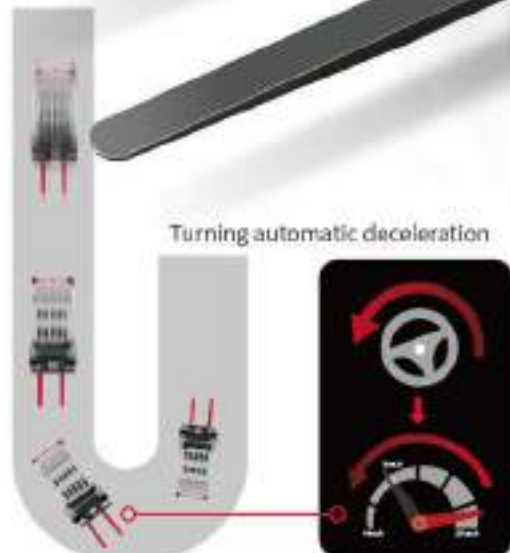
ADMIN

1.SW MONITOR	7.P.M.SET
2.OPERATE MONITOR	8.BDI SET
3.TEMP MONITOR	9.STEER SET
4.CUR MONITOR	10.T.M.CUR SET
5.USER.SET	11.T.S.CUR SET
6.T.M. SET	12.P.M.CUR SET



Convenient maintenance

More convenient maintenance operation improves the maintenance efficiency of after-sale services.

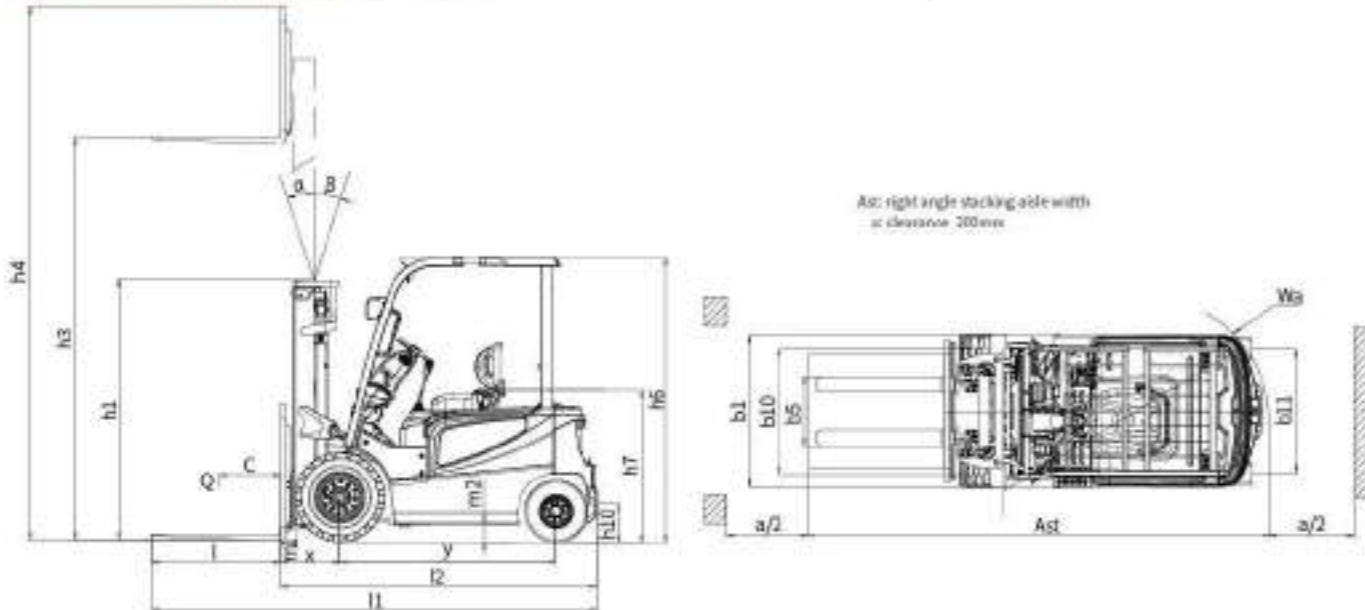


Manufacturer and Technical Data (Table 1)

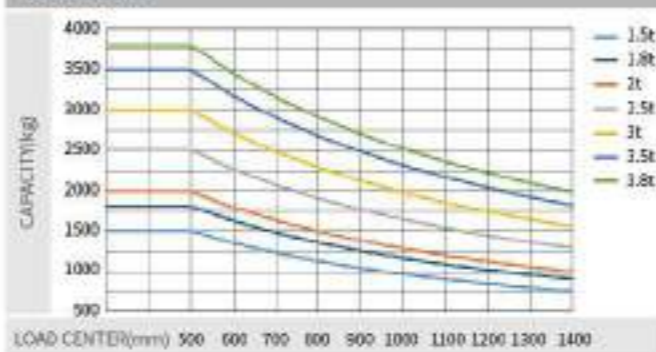
Characteristics		HELI					
1.01	Manufacturer	HELI					
1.02	Model	CPD15	CPD16	CPD15	CPD16	CPD20	
1.03	Configuration number	A3H4-W/A5H4-M	A3H4-M/A5H4-M	A5H4-S	A5H4-S	A5H4-S	
1.04	Rated capacity	Q kg	1500	1800	1500	1800	2000
1.05	Load center distance	c mm	500	500	500	500	500
1.06	Power mode	Battery					
1.07	Driving mode	Seated					
1.08	Front overhang	x mm	400			434	
1.09	Wheelbase	y mm	1475			1660	
Weight							
2.01	Total weight (with/without battery)	kg	3125/2365	3175/2415	3050/2350	3100/2400	3300/2590
2.02	Axle load (laden, front/rear)	kg	3063/662	4431/544	3934/616	4402/498	4775/524
2.03	Axle load (unladen, front/rear)	kg	1547/1578	1540/1635	1518/1532	1511/1580	1544/1756
Tyres							
3.01	Tyre type	Pneumatic tyre					
3.02	Tyre size, front	6.50-10-10PR					
3.03	Tyre size, rear	18x7-8-10PR					
3.04	Wheels, number front/rear (x drives wheels)	2/2					
3.05	Tread, front	b10 mm	934			970	
3.06	Tread, rear	b11 mm	900			960	
Dimensions							
4.01	Mast tilt angle (forward/backward)	a/b °	6/8			6/10	
4.02	Height (mast lowered)	h1 mm	1990			2060	
4.03	Free lifting height	h2 mm	155			165	
4.04	Lifting height (standard)	h3 mm	3000			3000	
4.05	Max. height, extended (with backrest)	h4 mm	4014			4020	
4.06	Height of overhead guard	h5 mm	2130			2130	
4.07	Seat height relating to SIP (to ground)	h7 mm	1125			1154	
4.08	Towing coupling height	h10 mm	250			300	
4.09	Overall length (with fork)	l mm	3150			3135	
4.10	Overall length (without fork)	l2 mm	2200			2205	
4.11	Overall width	b1 mm	1120			1180	
4.12	Fork carriage, according to ISO2328	s/w1 mm	34			34	
4.13	Fork size/thickness x width x length	35 x 100 x 920					
4.14	Distance across fork-arms, Max./Min.	b5 mm	180/200			1030/250	
4.15	Distance across fork-arms, Max./Min.	r1 mm	100			100	
4.16	Ground clearance (center of wheelbase)	m2 mm	95			125	
4.17	Right angle stacking side with a clearance 100mm	Ast mm	3515			3581	
4.18	Right angle stacking side with a clearance 100mm	Ast mm	3770			3775	
4.19	Min. outside turning radius	Wa mm	1920			2140	
Performance Data							
5.01	Travel speed (laden/unladen)	km/h	14.5/15	14.5/15	12/13	13/13	14.5/15
5.02	Lift speed (laden/unladen)	m/s	0.320/0.440	0.290/0.440	0.290/0.400	0.270/0.400	0.280/0.440
5.03	Lowering speed (laden/unladen)	m/s	0.400/0.400				
5.04	Max. drawbar pull (laden/unladen)	N	10200/9700	10200/9800	10200/9700	10200/9800	11000/10700
5.05	Max. gradeability (laden/unladen)	%	17/21	15/26	15/23	15/22	15/25
5.06	Acceleration time (10 m) (laden/unladen)	s	5.5/5.2	5.6/5.3	6.0/5.7	6.1/5.8	5.6/5.2
Battery							
6.01	Battery, according to DIN	43531A					
6.02	Battery voltage/Capacity (Ks)	V/Ah	48/480	48/480	48/400	48/400	48/400
6.03	Battery weight	kg	760	760	700	700	706
Motor and controller							
7.01	Driving motor powering (52-60min)	kW	8				
7.02	Lifting motor powering (53-15%)	kW	10.6				
7.03	Driving motor controlling mode	MOSFET/AC					
7.04	Lifting motor controlling mode	MOSFET/AC					
Addition data							
8.01	Service brake/Parking brake	Hydraulic/Mechanical					
8.02	Operating pressure for attachments	Mpa	16				

Manufacturer and Technical Data (Table 2)

Characteristics		HELI				
1.01	Manufacturer	HELI				
1.02	Model	CPD20	CPD25	CPD20	CPD25	CPD25
1.03	Configuration number	A3H4-W/A5H4-M	A3H4-M/A5H4-M	A5H4-S	A5H4-S	A5H4-S
1.04	Rated capacity	Q kg	2000	2500	2000	2500
1.05	Load center distance	c mm	500	500	500	500
1.06	Power mode	Battery				
1.07	Driving mode	Seated				
1.08	Front overhang	x mm	460			460
1.09	Wheelbase	y mm	1660			1660
Weight						
2.01	Total weight (with/without battery)	kg	4090/3100	4190/3200	3940/3100	4100/3200
2.02	Axle load (laden, front/rear)	kg	5300/730	6010/680	5220/720	5930/670
2.03	Axle load (unladen, front/rear)	kg	2050/1880	2140/2150	2030/1930	2000/2100
Tyres						
3.01	Tyre type	Pneumatic tyre				
3.02	Tyre size, front	7.00-12-14PR				
3.03	Tyre size, rear	18x7-8-14PR				
3.04	Wheels, number front/rear (and driven wheels)	2/2				
3.05	Tread, front	b10 mm	970			970
3.06	Tread, rear	b11 mm	960			960
Dimensions						
4.01	Mast tilt angle (forward/backward)	a/b °	6/10			6/10
4.02	Height (mast lowered)	h1 mm	2060			2060
4.03	Free lifting height	h2 mm	165			165
4.04	Lifting height (standard)	h3 mm	3000			3000
4.05	Max. height, extended (with backrest)	h4 mm	4020			4020
4.06	Height of overhead guard	h5 mm	2130			2130
4.07	Seat height relating to SIP (to ground)	h7 mm	1154			1154
4.08	Towing coupling height	h10 mm	300			300
4.09	Overall length (with fork)	l mm	3264	3204	3264	3204
4.10	Overall length (without fork)	l2 mm	2434			2434
4.11	Overall width	b1 mm	1180			1180
4.12	Fork carriage, according to ISO2328	s/w1 mm	34			34
4.13	Fork size/thickness x width x length	40 x 122 x 920				
4.14	Distance across fork-arms, Max./Min.	b5 mm	1030/250			1030/250
4.15	Distance across fork-arms, Max./Min.	r1 mm	100			100
4.16	Ground clearance (center of wheelbase)	m2 mm	125			125
4.17	Right angle stacking side with a clearance 100mm	Ast mm	3753			3753
4.18	Right angle stacking side with a clearance 100mm	Ast mm	3881			3881
4.19	Min. outside turning radius	Wa mm	2140			2140
Performance Data						
5.01	Travel speed (laden/unladen)	km/h	14.5/15	14.5/15	12/13	13/13
5.02	Lift speed (laden/unladen)	m/s	0.320/0.440	0.290/0.440	0.290/0.400	0.270/0.400
5.03	Lowering speed (laden/unladen)	m/s	0.360/0.400			
5.04	Max. drawbar pull (laden/unladen)	N	12600/12000	14000/12100	13600/13000	14000/13000
5.05	Max. gradeability (laden/unladen)	%	17/25	15/25	15/25	15/25
5.06	Acceleration time (10 m) (laden/unladen)	s	5.9/5.0	6.1/5.0	6.0/5.3	6.2/5.3
Battery						
6.01	Battery, according to DIN	43531A				
6.02	Battery voltage/Capacity (Ks)	V/Ah	48/600	48/600	48/500	48/500
6.03	Battery weight	kg	920	920	840	840
Motor and controller						
7.01	Driving motor powering (52-60min)	kW	11			
7.02	Lifting motor powering (53-15%)	kW	12			
7.03	Driving motor controlling mode	MOSFET/AC				
7.04	Lifting motor controlling mode	MOSFET/AC				
Addition data						
8.01	Service brake/Parking brake	Hydraulic/Mechanical				
8.02	Operating pressure for attachments	Mpa	16			



Load curve



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.

