

CPD15/18/20/25 /30/35/38 A7LIH4-S A7XLIH4-S



HELI



1.5-3.8 t LITON

H4 series Lithium-ion Battery Forklift Truck



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




Lead & Lithium Are Ready To Go.

- / 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 super spacious cab design are suitable for people of different heights.

Steering wheel start steering (optional)

P, E, S three speed regulation

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



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

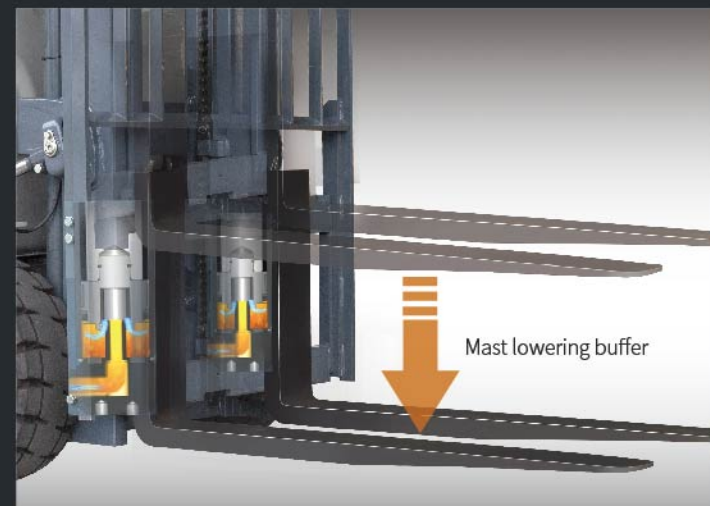
Reversing horn handle (s optional, M standard)



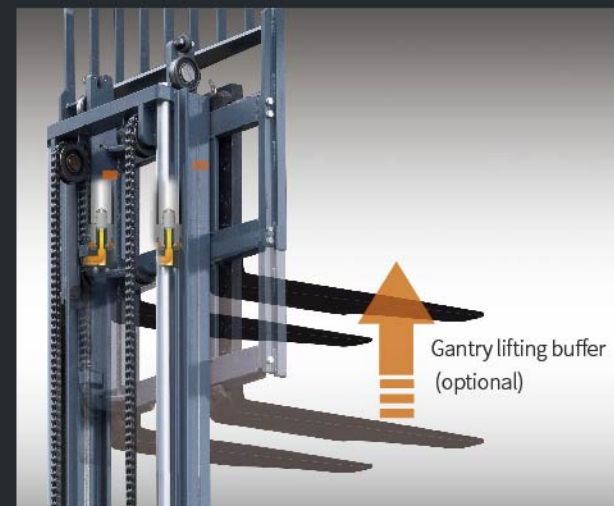
Semi enclosed shock-absorbing seat offers high comfort.



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 cup holder, 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



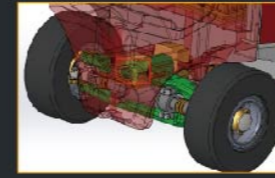
Mast:
Borrowing the main components of mature mast of internal combustion forklift truck

Sheet metal stamping side cover

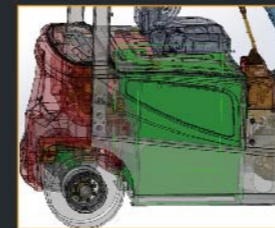
All metal anti-skid pedal



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

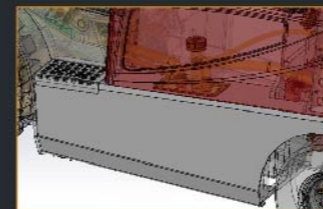


High rotation point steering axle



Middle and sink layout of the battery

Good heat dissipation



Side mounted welded oil tank



Test verification



Rain test

Simulate the operation under 15min rainstorm, reach IPx4 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 °C 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, rain, bumpy road, etc.).

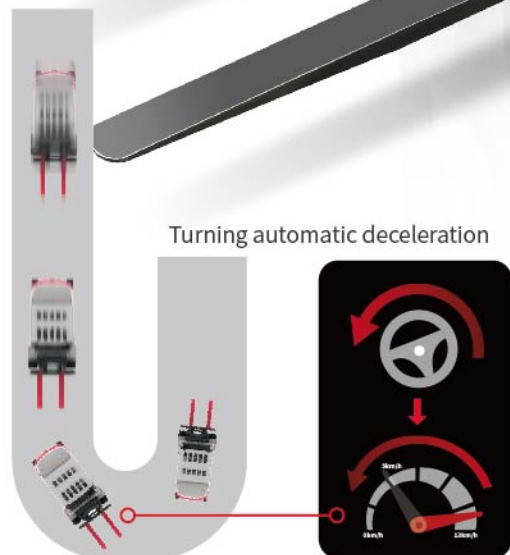
Intelligent security

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



 **Driver Presence Sensing System** **Unmanned self-locking intelligent protection**

Convenient maintenance

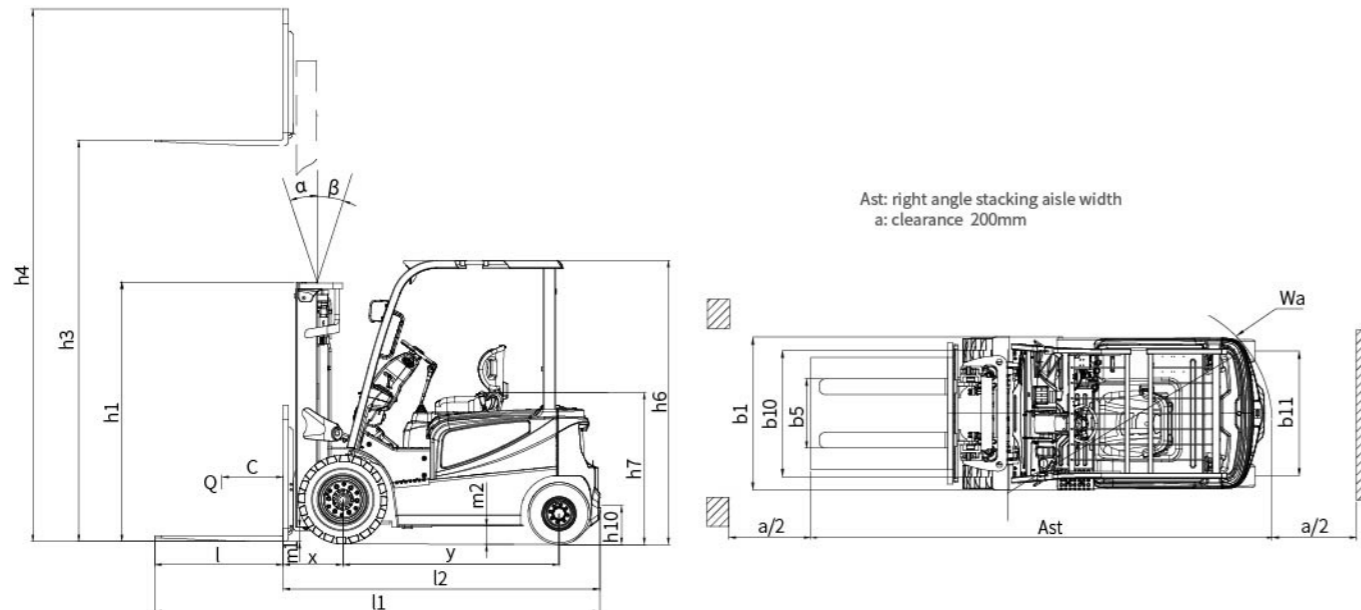
More convenient maintenance operation improves the maintenance efficiency of after-sale services.

Manufacturer and Technical Data(Tabulation 1)

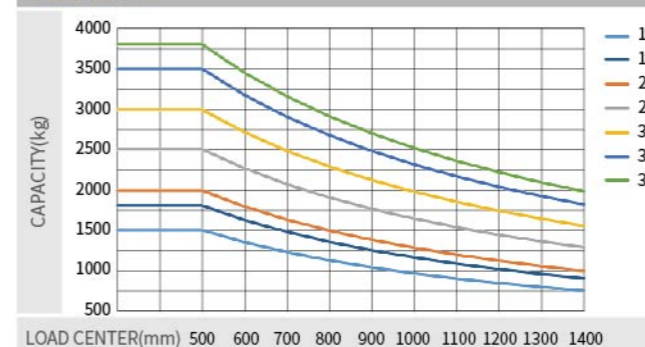
Characteristics		HELI						
1.01	Manufacturer							
1.02	Model	CPD15		CPD18	CPD20	CPD25		
1.03	Configuration number	A7LIH4-S		A7XLIH4-S	A7LIH4-S			
1.04	Rated capacity	Q	kg	1500	1800	2000	2500	
1.05	Load center distance	c	mm	500				
1.06	Power mode	Lithium battery						
1.07	Driving mode	Seated						
1.08	Front overhang	x	mm	409	414	460		
1.09	Wheelbase	y	mm	1475		1660		
Weight								
2.01	Total weight (with/without battery)		kg	2830/2695	2950/2815	3120/2985	3615/3450	
2.02	Axle load (laden,front/rear)		kg	3735/595	4218/532	4581/539	5000/615	
2.03	Axle load (unladen, front/rear)		kg	1312/1518	1313/1637	1344/1776	1830/1785	
Tyres								
3.01	Tyre type			Pneumatic tyre	6.50-10-12PR	Pneumatic tyre	7.00-12-14PR	
3.02	Tyre size,front			6.50-10-10PR		6.50-10-12PR		
3.03	Tyre size,rear			16×6-8-10PR		18×7-8-14PR		
3.04	Wheels, number front/rear (x=driven wheels)			2/2				
3.05	Tread, front	b10	mm	934				
3.06	Tread, rear	b11	mm	920				
Dimensions								
4.01	Mast tilt angle (forward/backward)	α/β	°	6/8				
4.02	Height (mast lowered)	h1	mm	1995				
4.03	Free lifting height	h2	mm	155				
4.04	Lifting height (standard)	h3	mm	3000				
4.05	Max. height, extended (with backrest)	h4	mm	4014				
4.06	Height of overhead guard	h6	mm	2130				
4.07	Seat height relating to SIP (to ground)	h7	mm	1125				
4.08	Towing coupling height	h10	mm	250				
4.09	Overall length (with fork)	l1	mm	3120		3125	3504	
4.10	Overall length (without fork)	l2	mm	2200		2205	2434	
4.11	Overall width	b1	mm	1120				
4.12	Fork size:thickness x width x length	2A						
4.13	Fork carriage, according to ISO2328	s/e/l	mm	35×100×920	40×100×920	40×122×920	40×122×1070	
4.14	Distance across fork-arms, Max./Min.	b5	mm	960/200				
4.15	Ground clearance (at mast)	m1	mm	100				
4.16	Ground clearance (center of wheelbase)	m2	mm	95				
4.17	Right angle stacking aisle width for pallet 1000 x1200mm crossways	Ast	mm	3575		3580	3753	
4.18	Right angle stacking aisle width for pallet 800 x1200mm lengthways	Ast	mm	3770		3775	3953	
4.19	Min. outside turning radius	Wa	mm	1920				
Performance data								
5.01	Travel speed (laden/unladen)		km/h	12/13		14.5/15		
5.02	Lift speed (laden/unladen)		m/s	0.290/0.400	0.270/0.400	0.280/0.440	0.290/0.400	
5.03	Lowering speed (laden/unladen)		m/s	0.400/0.400		0.360/0.460		
5.04	Max.drawbar pull (laden)		N	10200/9700	10200/9800	11000/10700	13600/13000	
5.05	Max.gradeability (laden/unladen)		%	15/23	15/22	15/25	15/25	
5.06	Acceleration time(10 m)(laden/unladen)		s	6.0/5.7	6.1/5.8	5.6/5.2	6.0/5.3	
Battery								
6.01	Battery voltage/Capacity		V/Ah	80/125		80/150		
6.02	Battery weight		kg	135		150		
Motor and controller								
7.01	Driving motor powering (S2-60min)		kW	8				
7.02	Lifting motor powering (S3-15%)		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(Tabulation 2)

Characteristics		HELI				
1.01	Manufacturer					
1.02	Model	CPD30		CPD35	CPD38	
1.03	Configuration number	A7LIH4-S		A7LIH4-S	A7LIH4-S	
1.04	Rated capacity	Q	kg	3000	3500	3800
1.05	Load center distance	c	mm	500		
1.06	Power mode	Lithium battery				
1.07	Driving mode	Seated				
1.08	Front overhang	x	mm	477	482	482
1.09	Wheelbase	y	mm	1750		1780
Weight						
2.01	Total weight (with/without battery)		kg	4500/4290	4810/4600	5240/5000
2.02	Axle load (laden,front/rear)		kg	6710/790	7590/720	8150/890
2.03	Axle load (unladen, front/rear)		kg	2010/2490	2070/2740	2220/3020
Tyres						
3.01	Tyre type	Front Pneumatic tyre/Rear Solid tyre				
3.02	Tyre size,front	28×9-15-14PR			28×12.5-15-24PR	
3.03	Tyre size,rear	18×7-8			200/50-10	
3.04	Wheels, number front/rear (x=driven wheels)	2/2				
3.05	Tread, front	b10	mm	1000		
3.06	Tread, rear	b11	mm	970		
Dimensions						
4.01	Mast tilt angle (forward/backward)	α/β	°	6/10		
4.02	Height (mast lowered)	h1	mm	2070	2120	2180
4.03	Free lifting height	h2	mm	155		
4.04	Lifting height (standard)	h3	mm	3000		
4.05	Max. height, extended (with backrest)	h4	mm	4217		
4.06	Height of overhead guard	h6	mm	2180		
4.07	Seat height relating to SIP (to ground)	h7	mm	1164		
4.08	Towing coupling height	h10	mm	310		
4.09	Overall length (with fork)	l1	mm	3637	3642	3682
4.10	Overall length (without fork)	l2	mm	2567	2572	2612
4.11	Overall width	b1	mm	1260		
4.12	Fork size:thickness x width x length	3A				
4.13	Fork carriage, according to ISO2328	s/e/l	mm	45×125×1070		50×125×1070
4.14	Distance across fork-arms, Max./Min.	b5	mm	1060/250		
4.15	Ground clearance (at mast)	m1	mm	110		
4.16	Ground clearance (center of wheelbase)	m2	mm	135		
4.17	Right angle stacking aisle width for pallet 1000 x1200mm crossways	Ast	mm	3912	3917	3952
4.18	Right angle stacking aisle width for pallet 800 x1200mm lengthways	Ast	mm	4115	4117	4152
4.19	Min. outside turning radius	Wa	mm	2235		
Performance data						
5.01	Travel speed (laden/unladen)		km/h	12/13		
5.02	Lift speed (laden/unladen)		m/s	0.290/0.400	0.270/0.400	0.270/0.400
5.03	Lowering speed (laden/unladen)		m/s	0.400/0.440		
5.04	Max.drawbar pull (laden)		N	16300/16000	16900/15900	16800/16200
5.05	Max.gradeability (laden/unladen)		%	15/25	15/22	15/20
5.06	Acceleration time(10 m)(laden/unladen)		s	5.8/5.3	6.3/5.4	6.2/5.2
Battery						
6.01	Battery voltage/Capacity		V/Ah	80/202		
6.02	Battery weight		kg	210		
Motor and controller						
7.01	Driving motor powering (S2-60min)		kW	15		
7.02	Lifting motor powering (S3-15%)		kW	16		
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.

3t/3.5t/3.8t Mast parameters															
Mast type	Mast model	Max.lifting height (mm)	Load capacity (lode center 500mm)(kg)			Height (mast lowered) (mm)			Free lift (with backrest) (mm)			Service weight (kg)			Mast tilt angle α/β(°)
			3t	3.5t	3.8t	3t	3.5t	3.8t	3t	3.5t	3.8t	3t-S	3.5t-S	3.8t-S	
2-stage standard Mast	M200	2000	3000	3500	3800	1570	1620	1680	155	160	160	4404	4704	5134	6/10
	M250	2500	3000	3500	3800	1820	1870	1930	155	160	160	4452	4757	5187	6/10
	M300	3000	3000	3500	3800	2070	2120	2180	155	160	160	4500	4810	5240	6/10
	M330	3300	3000	3500	3800	2220	2270	2330	155	160	160	4529	4842	5272	6/10
	M350	3500	3000	3500	3800	2320	2370	2430	155	160	160	4548	4863	5293	6/10
	M370	3700	3000	3300	3800	2420	2470	2530	155	160	160	4567	4884	5314	6/6
	M400	4000	2850	3150	3700	2620	2670	2730	155	160	160	4647	4968	5398	6/6
	M425	4250	2750 +2800	3050 +3150	3550 +3650	2745	2795	2855	155	160	160	4671	4994	5424	6/6 +6/10
	M450	4500	2600 +2700	2800 +3000	3400 +3600	2870	2920	2980	155	160	160	4695	5021	5451	6/6 +6/10
	M500	5000	2200 +2350	2450 +2500	3000 +3200	3120	3170	3230	155	160	160	4743	5074	5504	6/6 +6/10
2-stage full free mast	M550	5500	1950 +2150	2300 +2350	2700 +3000	3420	3470	3530	155	160	160	4841	5178	5608	6/6 +3/6
	M600	6000	1300 +1900	1450 +2100	2200 +2500	3670	3720	3780	155	160	160	4889	5231	5661	6/6 +3/6
	ZM200	2000	3000	3500	3800	1570	1620	1680	340	443	503	4527	4928	5158	6/10
	ZM250	2500	3000	3500	3800	1820	1870	1930	590	693	753	4577	4981	5211	6/10
	ZM300	3000	3000	3500	3800	2070	2120	2180	840	943	1003	4627	5035	5265	6/10
	ZM330	3300	3000	3500	3800	2220	2270	2330	990	1093	1153	4659	5068	5298	6/10
	ZM350	3500	3000	3500	3800	2320	2370	2430	1090	1193	1253	4679	5089	5319	6/10
	ZM370	3700	3000	3200	3800	2420	2470	2530	1190	1293	1353	4699	5110	5340	6/6
	ZM400	4000	2850	3200	3700	2620	2670	2730	1390	1493	1553	4777	5190	5420	6/6
	ZM425	4250	2700 +2750	3050 +3150	3550 +3650	2745	2795	2855	1515	1618	—	4803	5217	—	6/6 +6/10
3-stage full free mast	ZM450	4500	2500 +2600	2850 +3050	—	2870	2920	2980	1640	1743	—	4831	5246	—	6/6 +6/10
	ZM500	5000	2100 +2500	2350 +2750	—	3120	3170	3230	1890	1993	—	4885	5302	—	6/6 +6/10
	ZM550	5500	1950 +2400	2300 +2500	—	3420	3470	3530	2190	2293	—	4984	5405	—	6/6 +3/6
	ZM600	6000	1300 +2000	1450 +2200	—	3670	3720	3780	2440	2543	—	5037	5461	—	6/6 +3/6
	ZSM360	3600	2850	3250	3800	1870	1870	1930	640	640	693	4738	5121	5354	6/6
	ZSM400	4000	2750	3100	3700	2020	2020	2055	790	790	843	4779	5162	5395	6/6
	ZSM435	4350	2550 +2600	2950 +3100	3500 +3600	2120	2120	2180	890	890	943	4808	5191	5424	6/6 +6/10
	ZSM450	4500	2450 +2500	2850 +3000	3400 +3600	2170	2170	2230	940	940	993	4823	5206	5439	6/6 +6/10
	ZSM470	4700	2400 +2550	2850 +3200	3100 +3200	2230	2230	2295	1000	1000	1053	4841	5224	5457	6/6 +6/10
	ZSM480	4800	2350 +2500	2550 +3100	3100 +3300	2270	2270	2330	1040	1040	1093	4851	5234	5467	6/6 +6/10
ZSM500	5000	2100 +2500	2350 +2450	3000 +3150	2370	2370	2430	1140	1140	1193	4878	5261	5494	6/6 +6/10	
ZSM540	5400	1950 +2350	2200 +2400	2700 +3000	2470	2470	2555	1240	1240	1293	4908	5291	5524	6/6 +3/6	
ZSM600	6000	1350 +2200	1400 +2400	2200 +2600	2670	2670	2780	1440	1440	1493	5012	5303	5628	6/6 +3/6	
ZSM650	6500	950 +1900	1000 +2200	—	2870	2870	—	1640	1640	—	5067	5450	—	6/6 +3/6	
ZSM700	7000	*1800	*2000	—	3045	3045	—	1815	1815	—	5117	5500	—	6/6 +3/6	

Note: *Indicates the rated load capacity of the front wheel with twin tyres; When the front wheels of 3-3.5t are twin tyres (pneumatic tyres) and twin tyres (solid tyres), the service weight is increased by 140kg and 208kg respectively according to the table data; When the front wheels of 3.8t are twin tyres (pneumatic tyres) and twin tyres (solid tyres), the service weight is increased by 103kg and 251kg respectively according to the table data
 2-stage full free mast:3t:When there is no backrest, the free lifting height increases by 477mm; 3.5t-3.8t:When there is no backrest, the free lifting height increases by 407mm.
 3-stage full free mast:3t:When there is no backrest, the free lifting height increases by 427mm; 3.5-3.8t:When there is no backrest, the free lifting height increases by 407mm.

Optional item		S
Basic items	Model	
	Pneumatic tyre*	●
	Solid tyre	○
	Single tyre (front wheel)	●
	Twin tyre (front wheel)**	○
	Two piece valve	●
	Three or four piece valve	○
	Basic type: 3M lifting height mast	●
	Other type and other height seriesmast***	○
	Standard series fork	●
	Non standard series forks and attachments	○
	Standard exterior color (blue grey + Heli red)	●
	Other exterior colors (customized)	○
	Turning speed limit	○
	Reversing armrest with horn switch	○
Safety items	Overspeed 5km / h alarm	○
	Overspeed 8km / h alarm	○
	Overspeed 10km / h alarm	○
	Travelling + lifting + tilting + equipped with OPS function (without lowering)	●
	Full set of OPS functions	○
	Seat belt switch	○
	Multi way valve overload	●
	Dry powder fire extinguisher (0.5kg)	○
	Dry powder fire extinguisher (2kg)	○
	Carbon dioxide fire extinguisher (2kg)	○
	Reversing buzzer	●
	Reversing Chinese speaker	○
	No universal key	●
	With universal key	○
	Electronic lifting upper buffer	○
Comfort items	Central wide-angle rearview mirror	●
	Both side rear-view mirrors + center wide-angle rear-view mirror	○
	Reversing radar (4 probes)	○
	Reversing image (1 Camera + 4 radar probes)	○
	Semi enclosed seat	●
	Fully suspended seat	○
	Instrument panel with 1 USB interface (5V / 1A)	○
	Steering wheel starts steering	○
	Synchronous steering	○
	Steering wheel with handle ball	●
	Steering wheel without handle ball	○
	Electric fan	○
	panel mounted cab (including fan + wiper)	○
	Heater	○
	Cab / Windshield / Air conditioner / Heater	Single cooling air conditioner
Single cooling air conditioner + heater		○
Front windshield (including wiper)		○
Rear windshield		○
Top windshield (excluding fan)		○
Non standard overhead guard	50mm increased of overhead guard height	○
	50mm reduced of overhead guard height	○
	Overhead guard (with protective net)	○
Lights	LED rear work light (1)	○
	Rear LED red / Blue spotlight (1)	○
	Rear and lateral red / blue bar lights	○
	Fixed LED flashing warning light	○
	Fixed LED rotary warning lamp	○
	Fixed LED rotary buzzer warning light	○
Others	Metric thread	●
	Tilt cylinder jacket	○
	Steering cylinder jacket	○
	REMA 320 charging port	●
	Onboard charger	○
FICS standard type (for China)	○	

Note:
 ●Standard ; ○Optional ;
 Some non-standard options need to be customized. Please consult local sales personnel or product development technicians before purchasing.
 *3-3.8t rear wheel is equipped with solid tyre as standard.
 **The small 2t truck is not equipped with twin tyres.
 ***There are restrictions on the type and height of small 2t and 3.8t mast. See the table of mast parameters for details.