

LIION 1.5-1.8 t

**G2 SERIES LITHIUM BATTERY
POWERED REACH TRUCK
(STAND-ON TYPE)**

Fork tilt



G2 SERIES 1.5-1.8 t

LIION

» FEATURES OF THE COMPLETED TRUCK

Three phase AC type motor technology

- Three phase AC type motor control on travelling, lifting and steering
- Good acceleration
- Fast and sensitive respond on travel direction shifting
- Free from maintenance motor without carbon brush having long service life and low maintenance cost
- Energy regenerating during deceleration extending operation hours

Newly designed hydraulic system

- Newly designed hydraulic system with high working efficiency
- High power lifting motor
- MOSTET lifting speed governing electric controller
- New type low noisy gear pump, high efficiency and long life

Optimized intelligent design

- CAN bus technology
- Parking brake on slope
- Operation sequence protection
- Travelling speed control
- Lifting speed control
- Electric controller self protection
- Dead-man footswitch traction interlock

Advanced EPS electric powered steering

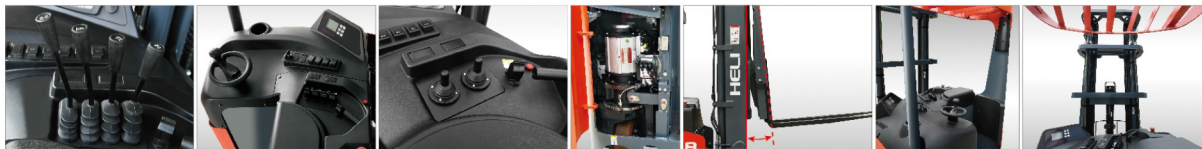
- EPS electric power steering offering easy, flexible, high efficient and mute operation
- Steering motor controller
- Automatic centering function
- Automatic limit on speed and accelerated speed when steering

Easy operated thumb switch

- To control travelling functions
- Clear operating units

Five independent braking systems

- Automatic braking when accelerator lever is released
- Emergency brake activated by releasing foot switch
- Parking brake activated by pressing button on the panel
- Automatic hold-on brake
- Emergency isolator



Environment Friendliness

- Zero emission
- Low noise
- Free of heavy metals
- 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 or ten thousand hours quality guarantee for high performance lithium battery assembly

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



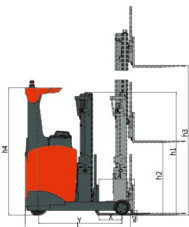
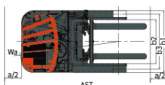
High Safety

- According to the characteristics of industrial vehicles, it achieves safety protection design which includes lithium battery materials, battery core type, pack technique and system power management
- "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

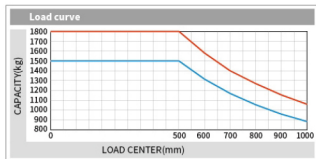
Manufacturer's Data and Design Characteristics

Character		HELI			
1.01	Manufacturer				
1.02	Model				
1.03	Configuration number			CQD15	CQD18
1.04	Load capacity	Q	kg	1500	1800
1.05	Load center distance	C	mm	500	
1.06	Power mode			Lithium Battery	
1.07	Driving mode			Stand-on	
1.08	Wheel base	Y	mm	1335	1500
Tyre					
2.01	Tyre type			Polyurethane	
2.02	Wheel number, drive/caster/load (2=drive wheel)			1x/2/2	
2.03	Track Width,load	b3	mm	976	
2.04	Wheel size, load		mm	ø254x114	
2.05	Wheel size, drive		mm	ø330x114	
2.06	Wheel size, caster		mm	ø178x76	
Size					
3.01	Lift height	h3	mm	3200	3200
3.02	Free lift	h2	mm	115	115
3.03	Mast height, lowered	h1	mm	2355	2355
3.04	Fork size, thickness/width/length	s/e/l	mm	35x100x920	35x100x920
3.05	Fork adjusting width		mm	200-628	200-628
3.06	Fork sideshifting		mm	±55	±55
3.07	Truck body length(fork excluded)	L	mm	1721	1886
3.08	Truck body width	b1	mm	1090	1090
3.09	Distance between support arms	b2	mm	772	772
3.10	Reach distance	l4	mm	550	635
3.11	Height of overhead guard	h4	mm	2250	2250
3.12	Ground clearance,below mast	m2	mm	80	80
3.13	Turning radius	Wa	mm	1615	1775
3.14	Distance from fork front tip to center of load wheel	X	mm	329	414
3.15	Axis width with pallet 1100x1100w,clearance 200	Ast	mm	2760	2855
3.16	Axis width with pallet 1000x1100w,clearance 200	Ast	mm	2680	2775
Performance					
4.01	Travelling speed,with/without load		km/h	10/10.5	10/10.5
4.02	Lifting speed,with/without load		m/s	0.31/0.5	0.3/0.5
4.03	Lowering speed,with/without load		m/s	0.5/0.5	0.5/0.5
4.04	Reach speed,with/without load		m/s	0.11/0.11	0.11/0.11
4.05	Maximum climbing ability,with/without load		%	10/15	10/15
Weight					
5.01	Total weight(with battery)		kg	2595	2645
Battery					
6.01	Battery voltage/capacity k5		V/Ah	48/271	48/271
6.02	Battery weight		kg	630	675
6.03	Battery box dimension		mm	1020x359x629	1020x439x629
Motor and controller					
7.01	Drive motor power		kw	5	5
7.02	Lifting motor power		kw	10	10
7.03	Steering motor power		kw	0.6	0.6
7.04	Type of driving control			MOSTET/AC	
7.05	Type of lifting control			MOSTET/AC	
7.06	Type of steering control			MOSTET/AC	
7.07	Transmission box			HELI special transmission box	
7.08	Service brake			Electrical	
7.09	Hydraulic system working pressure		Mpa	16.5	18.5

NOTE: Detailed information about battery,please contact our salesman or engineer.


 AST: Right angle stacking aisle width
 a: Clearance a=200mm

RENEWABLE ENERGY TECHNOLOGIES

With the use of AC controlling renewable energy technologies, the forklift is more energy-saving and the working hour of the battery is extended by 15%.


15%

1.5 t 1.8 t

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 FULL FREE 3-STAGE MAST

Mast model	Lifting height (mm)		Free lifting height(mm)		Mast height, lower(mm)		Load capacity(kg)		Mast tilt angle (front/rear) α/β
	CQD15	CQD18	CQD15	CQD18	CQD15	CQD18	CQD15	CQD18	
ZSM460	4600	4600	1280	1280	2319	2319	1400	1700	2°/4°
ZSM480	4800	4800	1340	1340	2386	2386	1400	1700	2°/4°
ZSM500	5000	5000	1400	1400	2453	2453	1400	1550	2°/4°
ZSM540	5400	5400	1540	1540	2586	2586	1250	1450	2°/4°
ZSM570	5700	5700	1640	1640	2686	2686	1150	1350	2°/4°
ZSM600	6000	6000	1740	1740	2786	2786	1050	1250	2°/4°
ZSM630	6300	6300	1840	1840	2886	2886	950	1150	2°/4°
ZSM650	6500	6500	1900	1900	2953	2953	850	1050	2°/4°
ZSM675	6750	6750	1940	1940	2987	2987	750	950	2°/4°

WIDE VIEW MAST

Mast model	Lifting height (mm)		Free lifting height(mm)		Mast height, lower(mm)		Load capacity(kg)		Mast tilt angle (front/rear) α/β
	CQD15	CQD18	CQD15	CQD18	CQD15	CQD18	CQD15	CQD18	
M290	2900	2900	115	115	2300	2300	1500	1800	2°/4°
M320	3200	3200	115	115	2450	2450	1500	1800	2°/4°
M360	3600	3600	115	115	2650	2650	1500	1800	2°/4°
M380	3800	3800	115	115	2750	2750	1500	1800	2°/4°
M400	4000	4000	115	115	2850	2850	1500	1800	2°/4°
M420	4200	4200	115	115	2950	2950	1450	1750	2°/4°
M440	4400	4400	115	115	3050	3050	1400	1700	2°/4°
M460	4600	4600	115	115	3150	3150	1400	1700	2°/4°
M500	5000	5000	115	115	3350	3350	1400	1550	2°/4°

Standard configuration

AC travelling motor
 AC Lifting motor
 AC steering motor
 Electrical brake
 DC/DC converter
 Low noisy gear pump
 Control valve(four throw)
 3200mm two-stage mast
 Integral sideshifter
 Standard fork
 Backrest
 Polyurethane tyre
 LED meter
 Front working light
 Warning light
 Rearview mirror
 Blue spotlight
 Fork tilting

Optional device

Three-stage full free lift mast
 Two-stage mast(other lifting height)
 Fork with other length
 Fork extension
 Monitoring system
 Other battery
 Battery charger
 Alternative colour schemes
 Battery on rollers for rapid side battery change
 Lifting height pre-selector*
 Electronic control handle*

* Only to the reach truck that configuration number is GD2RLI.

Configuration number	Configuration
GD2RLI	Solenoid valve
	Thumb switch control hydraulic functions
	ZAPI travelling motor controller
	ZAPI lifting motor controller
	ZAPI steering motor controller
GE2RLI	Manually operated valve
	Mechanical handle control hydraulic functions
	ZAPI travelling motor controller
	ZAPI lifting motor controller
	ZAPI steering motor controller

HELI smart fleet management system (optional)

- Vehicle positioning
- Remote diagnosis
- Remote monitoring
- Maintenance reminder
- Battery management
- Statistical form
- Vehicle management
- Identification recognition (optional)
- Weight management (optional)
- Collision management (optional)

