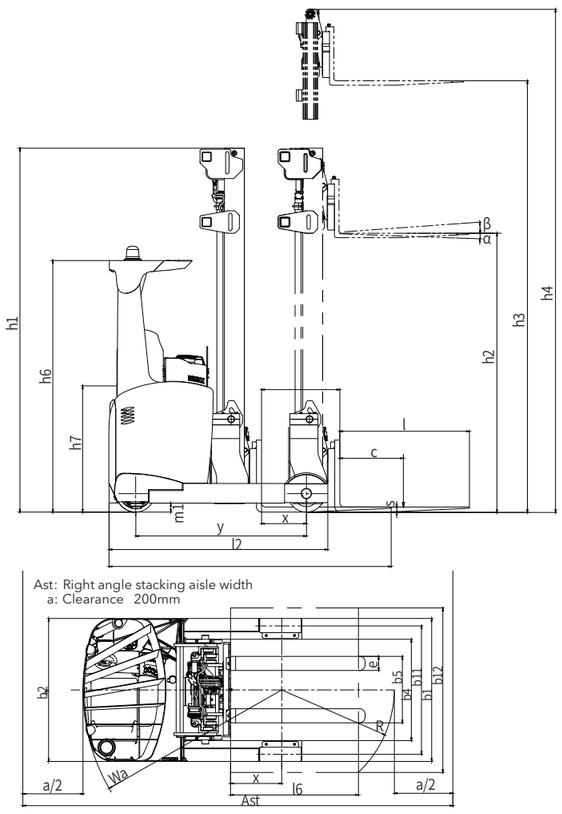
G2 SERIES 1.6-2.0 t LI ION

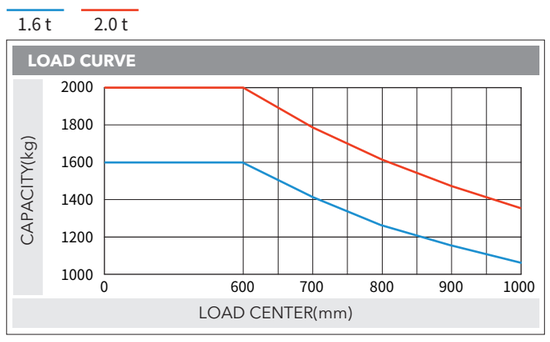
1.6t WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Max.lifting height (mm)	Load capacity (lode center 600mm)(kg)	Height (mast lowered)(mm)	Free lift (with backrest) (mm)	Service weight (kg)	Forktilt angle α/β (°)
		CQD16-GB2SHDLI	CQD16-GB2SHDLI	CQD16-GB2SHDLI	CQD16-GB2SHDLI	
ZSM630	6300	1600	2881	1840	3825	2°/4°
ZSM675	6750	1600	2982	1940	3855	2°/4°
ZSM700	7000	1600	3065	2030	3880	2°/4°
ZSM750	7500	1500	3232	2190	3930	2°/4°
ZSM800	8000	1450	3398	2360	3975	2°/4°
ZSM850	8500	1400	3564	2530	4025	2°/4°
ZSM900	9000	1300	3801	2778	4235	2°/4°
ZSM950	9500	1200	3967	2944	4320	2°/4°
ZSM1000	10000	1100	4134	3111	4375	2°/4°
ZSM1050	10500	1000	4301	3278	4435	2°/4°
ZSM1080	10800	950	4401	3378	4470	2°/4°
ZSM1100	11000	900	4467	3444	4490	2°/4°

2t WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Max.lifting height (mm)	Load capacity (lode center 600mm)(kg)	Height (mast lowered)(mm)	Free lift (with backrest) (mm)	Service weight (kg)	Forktilt angle α/β (°)
		CQD20-GB2SHDLI	CQD20-GB2SHDLI	CQD20-GB2SHDLI	CQD20-GB2SHDLI	
ZSM850	8500	2000	3634	2611	4695	2°/4°
ZSM900	9000	1900	3801	2778	4745	2°/4°
ZSM950	9500	1800	3967	2944	4795	2°/4°
ZSM1000	10000	1650	4134	3111	4845	2°/4°
ZSM1050	10500	1450	4301	3278	4895	2°/4°
ZSM1080	10800	1350	4401	3378	4925	2°/4°
ZSM1100	11000	1250	4467	3444	4950	2°/4°
ZSM1150	11500	1150	4634	3611	5000	2°/4°
ZSM1200	12000	1000	4801	3778	5050	2°/4°
ZSM1250	12500	800	4967	3944	5100	2°/4°





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 1200mm 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.

RENEWABLE ENERGY TECHNOLOGIES

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

15%

Manufacturer's Data and Design Characteristics

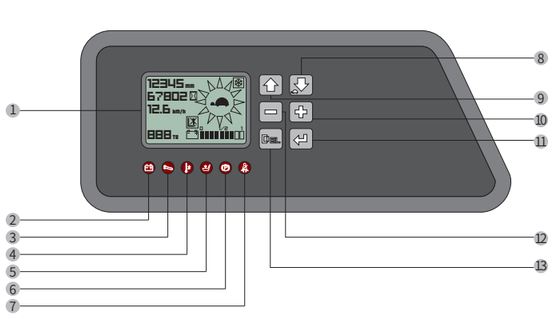
	Character				
1.01	Manufacturer			HELI	
1.02	Model			CQD16	CQD20
1.03	Configuration number			GB2SHDLI	
1.04	Load capacity	Q	kg	1600	2000
1.05	Load center distance	C	mm	600	
1.06	Power mode			Lithium Battery	
1.07	Driving mode			Seated	
1.08	Wheel base	Y	mm	1450	1670
	Tyre				
2.01	Tyre type			Polyurethane	
2.02	Wheels number,drive/load(X=driven wheels)			1X/2	
2.03	Track Width,load	b3	mm	1143	1143
2.04	Wheel size，load		mm	ø330x100	ø350x100
2.05	Wheel size，drive		mm	ø343x135	
	Size				
3.01	Lift height	h3	mm	6300	8500
3.02	Free lift	h2	mm	1840	2611
3.03	Mast height，lowered	h1	mm	2881	3634
3.04	Fork size，thickness x width x length	s/e/l	mm	40x122x1150	
3.05	Fork adjusting width		mm	244～724	
3.06	Fork tilt angle（front/rear）	α/β	°	2/4	
3.07	Fork sideshifting			±75	
3.08	Truck body length(fork excluded)	L	mm	1872	2096
3.09	Truck body width	b1	mm	1270	
3.10	Distance between support arms	b2	mm	900	
3.11	Reach distance	l4	mm	575/545	620
3.12	Height of overhead guard	h4	mm	2215	
3.13	Ground clearance,below mast	m2	mm	75	
3.14	Turning radius	Wa	mm	1689	1901
3.15	Load distance,centre of support arm wheel to face of forks	X	mm	370/340	381
3.16	Aisle width with pallet 1100Lx1100W,clearance 200	Ast	mm	2915	2960
3.17	Aisle width with pallet 1000Lx1100W,clearance 200	Ast	mm	2760	3010
	Performance				
4.01	Travelling speed,with/without load		km/h	13/14	13/14
4.02	Lifting speed,with/without load		m/s	0.48/0.7	0.35/0.55
4.03	Lowering speed,with/without load		m/s	0.55/0.5	0.5/0.5
4.04	Reach speed,with/without load		m/s	0.19/0.19	0.1/0.1
4.05	Maximum climbing ability,with/without load(S2-5min)		%	10/15	10/15
	Weight				
5.01	Total weight（with battery）			3825	4695
5.02	Axle unload，mast outreached，without load，drive/load			1705/2120	1960/2735
5.03	Axle unload，mast reached，without load，drive/load			2330/1495	2800/1895
5.04	Axle load，mast outreached，with load，drive/load			825/4600	935/5760
5.05	Axle load，mast reached，with load，fdrive/load			2045/3380	2575/4120
	Battery				
6.01	Battery voltage/capacity		V/Ah	80/202	80/202
6.02	Battery weight		kg	570	1000
6.03	Battery box dimension		mm	1220x298x749	1220x427x784
	Moter and controller				
7.01	Drive moter power(S2-60min)		kw	8	
7.02	Lifting moter power(S3-15%)		kw	15.5	
7.03	Steering moter power(S3-15%)		kw	0.8	
7.04	Type of control			MOSFET/AC	
7.05	Transmission box			HELI special transmission box	
7.06	Service brake			Electrical	

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

HELI

Reliable special designed instrument

The reliable special instrument gives a complete display of the vital information, like operation status, fault detection, etc. It ensures the operator predominate the vehicle status more intuitive and convenient.



1. Information display
2. Low voltage indicator
3. Fault indicator
4. Oil temperature indicator (spare use)
5. Foot pedal safety switch indicator
6. Electric brake indicator
7. Seat belt switch indicator (spare use)
8. Performance selecting button (down)
9. Performance selecting button (up)
10. Value setting button (increase)
11. Enter
12. Value setting button (decrease)
13. Exit

1. Fault indicator
2. Brake indicator
3. Seat switch indicator
4. Date and time
5. Working mode
6. Speed display
7. Truck speed
8. Steering angle indicator
9. Hour meter
10. Front and rear gears indicator
11. Performance selecting button (down)
12. Performance selecting button (up)
13. Value setting button (increase)
14. Value setting button (decrease)
15. Enter
16. Exit
17. Battery level

Standard configuration

AC travelling motor
AC Lifting motor
AC steering motor
Electrical brake
DC/DC converter
Low noisy gear pump
Control valve(four throw)
6300mm Three-stage full free lift mast (CQD16)
8500mm Three-stage full free lift mast (CQD20)
Standard fork
Integral sideshifter
Polyurethane tyre
Front working light
Rearview mirror
Monitoring system*
Lifing height pre-selector*
Fork tilting
Backward buzzer
HELI package

NOTE：Optional configuration for CQD16-GB2SHDLI marked with "*"

HELI smart fleet management system (optional)

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

Optional

Three-stage full free lift mast(other lifting height)
Fork with other length
Fork extension
Rear working light
Fan
Fire extinguisher
Truck networking
Other lithium battery
Alternative colour schemes

Charger technology

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

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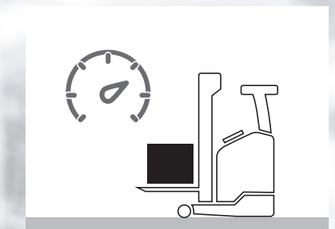
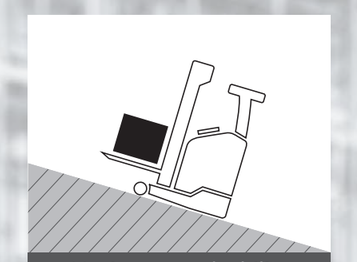
HELI

LI ION **1.6-2.0 t**

G2 SERIES LITHIUM BATTERY POWEREDREACH TRUCK (SIT-DOWN TYPE)(80V)(HEAVY DUTY TYPE)

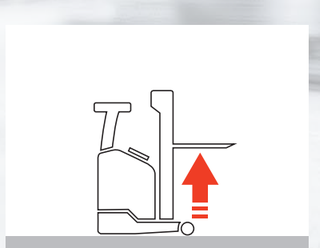


Driving speed **13km/h**



Maximum gradeability with load **10%**

Maximum lifting speed with load **0.35m/s**



Maximum lifting speed without load **0.6m/s**

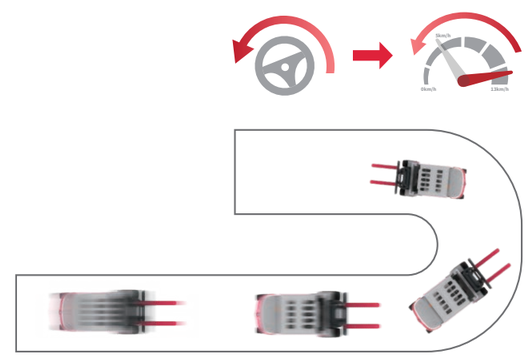
Full vehicle advantage

High performance guarantee high efficiency

- Lifting speed is increased by 10% and thus more goods can be lifted under the same conditions;
- The truck has fast driving and lifting speed, higher working efficiency;
- ZAPI Dual CPU controller conforming to the latest EU standard is equipped;
- The latest ZAPI instrument can be equipped with height preset function.
- One key to reach the set height improves operation efficiency Small turning radius makes steering flexible and easy.

Intelligent security protection

- **Intelligent stabilization system :** it can automatically adjust the mast and the truck speed according to the lifting height and load state . Improve the high bearing capacity and vehicle stacking safety ;
- **Intelligent speed limit in different application :** multi-scenario identification and intelligent speed limit balance efficiency and safety ;
- **Intelligent limit buffering :** intelligent induction of mast lifting and lowering avoids extreme impact and is safe and comfortable ;
- **Intelligent operation protection :** a full set of OPS system can avoid misoperation and ensure safety ;
- **Intelligent control strategy :** dual core controller is in line with the latest EU safety requirements ;
- **Intelligent steering deceleration :** the automatic deceleration function of the turning can reduce the risk of turning over ;



Cornering brake reduction

Advanced EPS electric powered steering

- EPS electric powered steering offering easy，flexible，high efficient and mute operation.
- Steering motor controller.
- Automatic centering function.
- Real-time shifting between 180°steering mode and 360° steering mode.
- Automatic limit on speed and accelerated speed when steering.

Newly designed hydraulic system

- Newly designed hydraulic system with high working efficiency
- High power lifting motor
- MOSFET lifting speed governing electric controller
- New type low noisy gear pump
- Max. lifting speed without load 15% increased
- Max. lifting speed with load 25% increased

Easy operated thumb switch

- To control hydraulic functions.
- Clear operating units.
- Proportional solenoid offering a stable and comfort lowering action .

Ergonomic optimization

- The new design of overhead guard provides a better view.
- Standard handrails make ingress and egress more convenient.
- Larger space for getting on and legs.

Environment Friendly

- Zero emission.
- Low noise.
- Free of heavy metals.
- No corrosion.
- No acid mist volatilization.

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.

Maintenance Free

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

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.

Long Service Life

- 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.

Suitable for working in both high and low environment

- Lithium battery is better than lead-acid battery when working between -25°C and 55°C.

Operating Cost Comparison:

Lithium battery forklift
VS.
Lead-acid battery forklift

Lithium battery forklift VS. Lead-acid battery forklift
The advantages of HELI lithium battery forklift trucks are more prominent in the cycle cost.
Lithium battery forklift truck has the advantages of no noise, no pollution, small vibration and simple operation
Compared with the lead-acid battery forklift truck, lithium battery forklift has the characteristics of fast charging and charging at any time, which is more suitable for multi shift operation.
Besides, HELI lithium battery forklift is maintenance free, high power conversion efficiency, and economical overall operation cost