# G2 SERIES 2-7 t

### >>> Technical characteristics of lithium battery

### **Environment Friendliness**

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

### **Long Service Life**

- Longer service life than lead-acid battery in equal working condition.
- 5years or ten thousand hours quality guarantee for high performance lithium battery assembly, over 75% capacity reserved.

### **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

### 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

### **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

#### **Maintenance Free**

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

**Explicit Cost** Hidden Cost The superiority of HELI lithium battery forklift truck is embodied in the use-cost within product lifecycle. Compared with lead-acid battery forklift truck, lithium battery forklift truck is more convenient for multiple working shifts. It has lower implicit cost and more economical total running cost.



**Lithium Battery Forklift** 

**Electricity Cost Battery Changing Cost** 

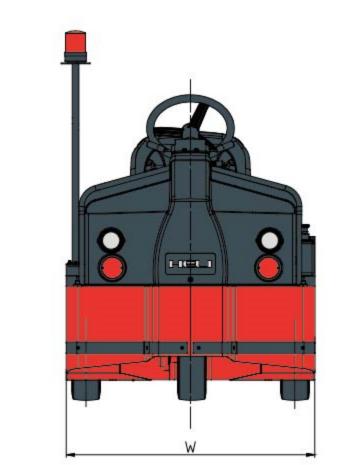
**Explicit Cost** 

Lead-acid Battery Forklift

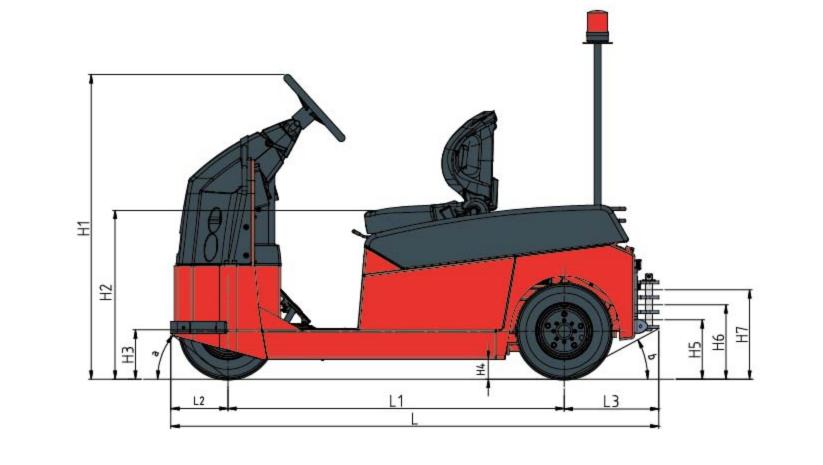
# Technical parameters

ltem			Unit	Unit			2-7t G2 series Lithium battery tractor			
1	Model			QYD20S- J2G2Li/J3G2Li	QYD30S- J2G2Li/J3G2Li	QYD40S- J2G2Li/J3G2Li	QYD50S- J2G2Li/J3G2Li	QYD60S- J2G2Li/J3G2Li	QYD70S- J2G2Li/J3G2Li	
2	Rated to	wing weight	kg	2000	3000	4000	5000	6000	7000	
3	Max. tov	ving force	N	3000	3100	6000	6100	8000	8100	
4	Rated to	wing force	N	800	1000	1500	1600	2600	2800	
5	Length		L(mm)	1740		1950		2060		
6	Width		W(mm)	860		960		1050		
7	Height		H1(mm)	1270		1270		1270		
8	Overhang length		L2(mm)	260		240		240		
9	Overhang length		L3(mm)	280		400		400		
10	Seat height		H2(mm)	710						
11	Pedal height		H3(mm)	200						
12	Traction hook height		H5/H6/H7(mm)	250/310		290/350		250/315/380		
13	Min. ground clearance		H4(mm)	75						
14	Approach angle		a(°)	43		38				
15	Departure angle		b(°)	30		28				
16	Min. steering radius		mm	1530		1600		1790		
17	Wheel base		L1(mm)	1200		1310		1420		
10	Tread	Front	mm			3	_			
18		Rear	mm	730		825		882		
10	Tyro	Front	· <del>-</del>	3.50-5		4.00-8		4.00-8		
19	Tyre Rear		-	2x4.00-8						
20	Tractor weight		kg	625		930		1100		
21	Front axle load		kg	225		350		280		
22	Rear axle load		kg	400		580		720		
23	Travelling speed (loaded/unloaded)		km/h	9/12		8/12		9/14		
24	Gradeab	oility (loaded/unloaded)	%	10/20	6/20	6/20	5/20	6/20	4/20	
25	Driving brake		-	Hydraulic brake &AC regeneration brake						
26	Parking brake		-	Mechanical						
27	Driving motor power		kW	3.0 AC		4.0 AC		6.5 AC		
28	Steering motor power		kW	-		-		0.6 AC		
29	Lithium battery voltage/capacity		V/Ah	24/202		48/202		48/271		

Standard configuration	Optional configuration		Lithium battery options		
Liquid crystal instrument	Semi-closed cab	Customized painting	24V/228Ah、24V/202Ah (HEDING) QYD20/30S-J2G2Li/J3G2Li		
Solid tyre for all wheels	Traceless solid tyre	Pole type warning light(2-7 ton)	48V/228Ah、48V/202Ah (HEDING) QYD40/50S- J2G2Li/J3G2Li		
Multi layer traction seat	Backview mirror	Convenient towing mechanism	48V/302Ah、48V/280Ah(HEDING)QYD60/70S-J2G2Li/J3G2Li		
Emergency power	Fire extinguisher	Blue (red) spotlight			
Driver's tool	Blue (red) bar indicator				



dB(A)



Electronic stepless mode



Driving control mode

Operator's ear noise



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G2 series Lithium battery tractor



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

## G2 SERIES 2-7 t



## >>> Brief introduction

**G2 series 2-7 ton** lithium battery tractor, with huge improvement on layout and operating performance, is a new product designed by HELI .With low step height, the tractor realized both strength of stand-on tractor that low step height which allows for easy entry and exit and strength of sit-down tractor that sit-down driving which provide comfortable driving and reduce operator fatigue.

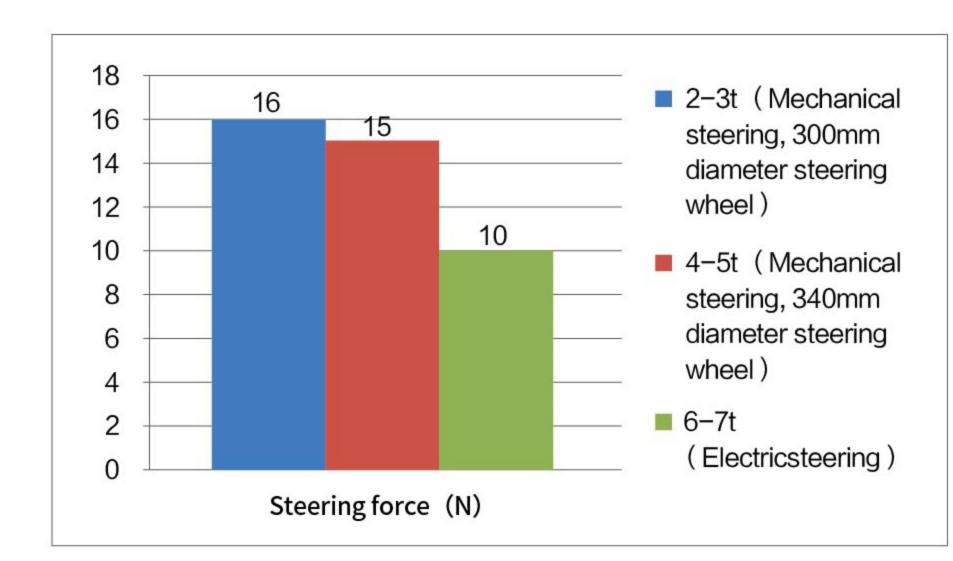
- HELI R&D system that "Oriented by market demand" and core values that "people-oriented and repay the society with high quality products" are
- fully expressed by G2 series 2-7 ton lithium battery tractor.
- The tractor is mainly used in car industry, postal service, medicine, tobacco, and other transport and logistics industry.





## Steering system

- 2-5t lithium battery tractor adopts reliable gear type mechanical steering system. The steering force is light and meets power-assisted steering system requirement.
- 6-7t lithium battery tractor adopts electric steering control system. With imported steering controller, closed-loop control, CAN communication, limited steering speed, display of steering angle and automatic back to center position when starting are realized.



### **Driving system**

- With AC driving system, the tractor has functions of close-loop control, slowly sliding down on the ramp, can communication, inching centering and so on.
- Low voltage three phase AC type asynchronism motor is used for driving. There are speed encoder and temperature sensor in it. Speed encoder is outside installed at the rear end of the motor for easy maintenance.

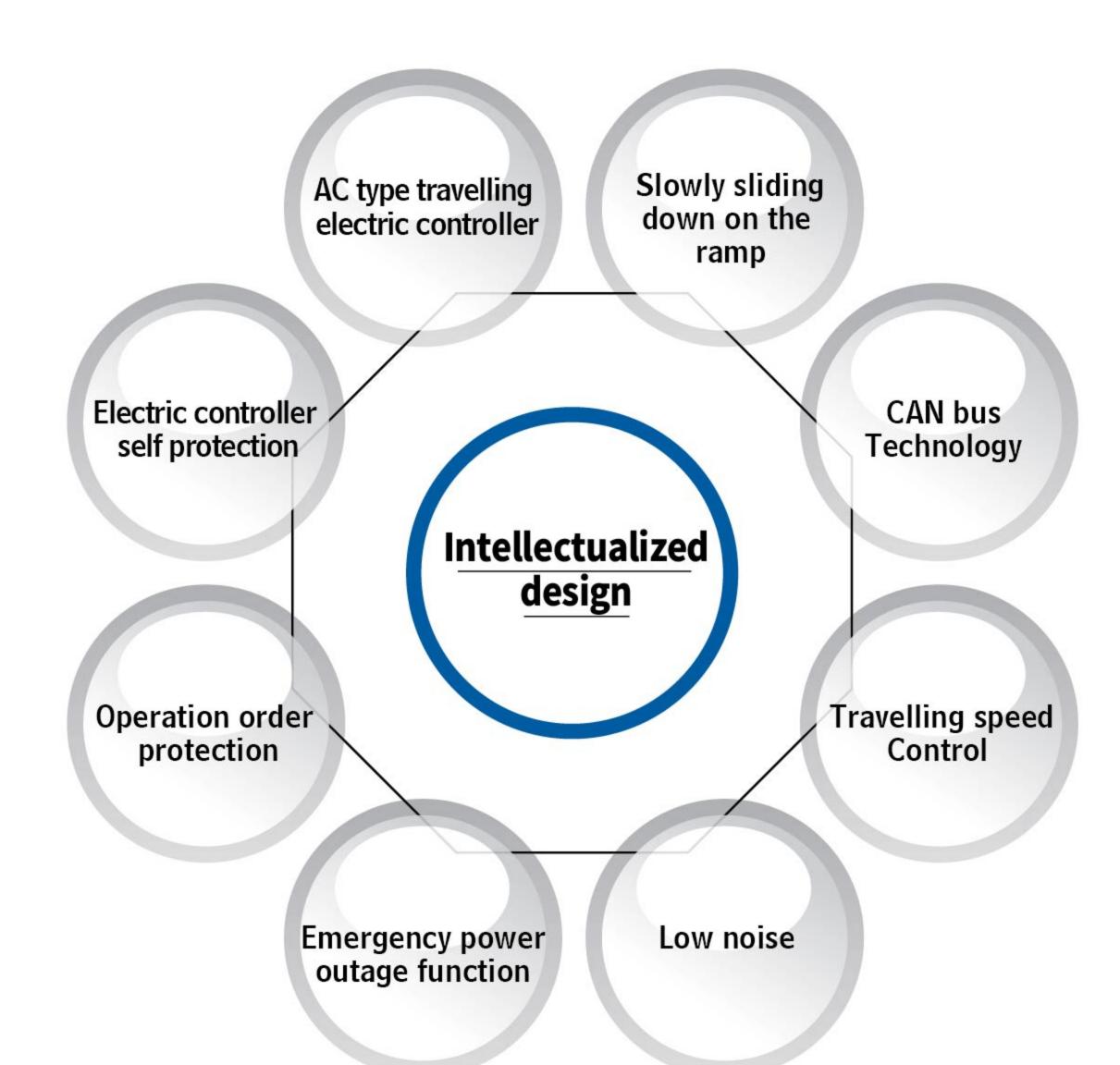




### Operating system

- Proper angle, position of braking pedal, acceleration pedal and slight pedal force fully satisfy ergonomic require.
- Adjustable steering wheel fits different operator's size.
- With three independent braking system, mechanical, hydraulic, and electric, the brake is safe and reliable.





### >> Main charateristics

- The tractor was designed for Euro-market and domestic high-end market.
- Ergonomically designed compartment allows easy operation of all controls and pedals to help reduce operator fatigue.
- Low step height allows easy entry and exit.
- AC control system is adopted on driving and steering which provide high efficiency and low energy-consumption.
- With foreward&backward inching button at both side, connect&release the pin can be realized by oneself.
- With speed limit when turning so the tractor is more safe and reliable.
- Efficient transmission system provides a strong power while climbing.
- With the option of convenient towing mechanism, operator can control the pin without leaving the seat.



