

## Features

Truck	Standard	Options
48V Permanent Magnet Synchronous Drive Motor	●	
Hydraulic Power Unit	●	
Polyurethane Wheels	●	
Side Charging	●	
Battery Lifting/Side Shift	●	
Adjustable Steering Wheel Height/ Angle	●	
Lithium Battery 48V/80Ah (EVE)	●	
Auxiliary Wheel	●	
Dual Load Wheels	●	
Cornering Speed Reduction	●	
Standing Platform Lift (Model: CJ025-XT1-LIT)	●	
Footrest Platform Lift/Lower (Model: CJ025-XT1-LIT)	●	
Side Operation Panel	●	
Various Fork Lengths		○
Various distance between Fork-arms		○
Lithium Battery 48V/105Ah (EVE)		○
Lithium Battery 48V/125Ah (CATL)		○
48V 30A Portable Charger		○
48V 50A Portable Charger		○
Front Multifunctional Bracket		○
Backrest	●	
Multi-Layer Pedal Pad	●	
Multifunctional Steering Wheel	●	
USB Power Supply	●	
Key Switch	●	
Adjustable Height Backrest		○
No logo Handle		○
<b>Controls and instruments</b>		
Electric Steering System	●	
Permanent Magnet Synchronous Motor Controller	●	
Interactive Dashboard	●	
Electronic Lifting Limit	●	
Contactless Interlock Switch	●	
<b>Safety</b>		
Emergency Power Off Switch	●	
Horn	●	
Bumper		○
<b>Lights</b>		
Front LED Light	●	
Turn Signals	●	

### HANGCHA GROUP CO., LTD.

Factory site: 666 Xiangfu Road,  
Hangzhou, Zhejiang, China (311305)

Tel: +86-571-88926735 88926755  
Fax: +86-571-88926789 88132890

sales@hcforklift.com www.hcforklift.com

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ISO45001:2018



ISO14001:2015



ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.



# X SERIES

## LOW-LEVEL ORDER PICKER

With capacity of 2,500kg

# X SERIES LOW-LEVEL ORDER PICKER

The X Series low-level order picker features an advanced permanent magnet brushless drive system and a brand new 48V system platform.

*It is safe and reliable, offering comfort and efficiency with outstanding performance and low maintenance costs*, making it ideal for the selection of large items from the lower shelves in large supermarkets.

**48V**  
VOLTAGE  
WITH  
PERMANENT MAGNET  
SYNCHRONOUS DRIVE MOTOR



HANGCHA provides Li-ion battery (LiFePO4) with 6 years or 12000 hours warranty.

**6 YEARS**  
WARRANTY

## RUGGED ON THE OUTSIDE



### APPEARANCE

- **Family Design:** The vehicle has a smooth and dynamic overall line that is in line with the latest design trends.
- **Material:** Made of stamped steel plates, it is strong, robust, durable, and environmentally friendly.



### Steering Wheel:

A newly developed multifunctional steering wheel with integrated design, novel and aesthetically pleasing, making operation more convenient.



### Adjustability:

The steering wheel can be adjusted in multiple degrees of freedom to suit operators of different heights and arm lengths.



### Storage Space:

Ample storage space provides greater convenience for the operator.



## TOTAL COMFORT

- **Lifting Mechanism:** All lifting mechanisms are designed with a buffering function to effectively reduce impact and improve the operator's comfort.
- **Pedal Assembly:** The combination of a suspended structure pedal assembly and a thick multi-layer pedal pad can effectively reduce the operator's fatigue.



# REVOLUTIONARY PERFORMANCE

- **Control System:** Side control and walking mode functions effectively improve work efficiency.
- **Drive System:** Employs a permanent magnet synchronous drive system with excellent performance and low energy consumption; a new 48V power supply system with low heat generation.
- **Control Unit:** The truck uses a VCU (Vehicle Control Unit) for precise and smooth control, leading to higher efficiency.

**9.5** TRAVEL SPEED  
Km/h



Equipped with a high-power motor for high travelling speeds.



## Working Modes:

The dashboard offers multiple working modes to meet the needs of different working conditions.



## Lifting Function:

Comes with a footrest platform that can be lifted, facilitating picking at higher locations.



## Charging System:

It features a side charging design, with battery pack that can be lifted and removed from the side, making it convenient and quick.



## RELIABILITY

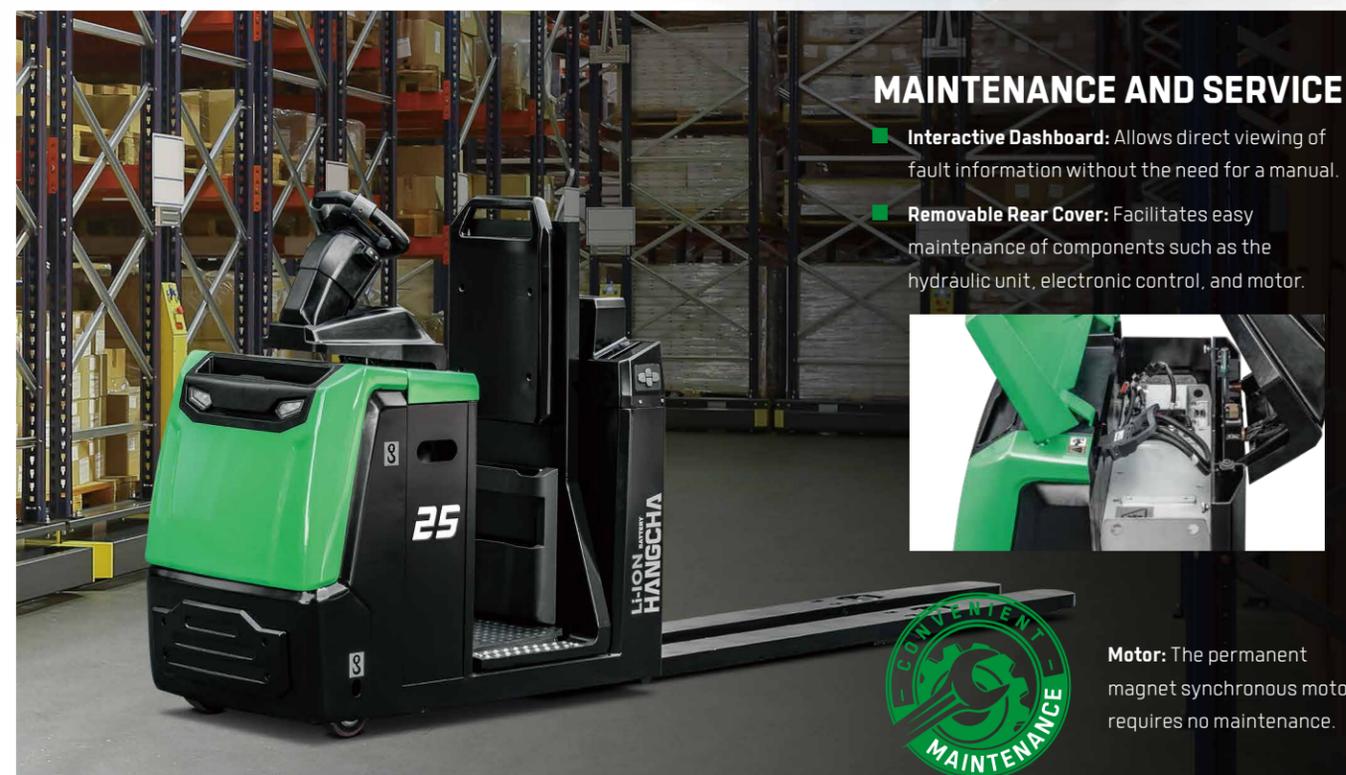
- **Frame:** The truck frame is made of high-strength steel plates, ensuring a long service life.
- **Connectors:** The entire truck uses waterproof connectors, and all electrical wires and cables are well protected, greatly improving the reliability of the electrical system.

# MORE PROTECT

## SAFETY

- **Lifting Limit Protection:** Standard electronic lifting limit and intelligent limit protection from the controller prevent impact when lifting to the top, effectively protecting the working motor and the safety of the goods.
- **Anti-Rollback Feature:** The truck has a slope anti-rollback function to ensure operational safety.

**Safety Monitoring:** Multiple safety monitoring switches such as steering wheel position detection and standing pedal induction work together to effectively ensure the personal safety of the operator.



## MAINTENANCE AND SERVICE

- **Interactive Dashboard:** Allows direct viewing of fault information without the need for a manual.
- **Removable Rear Cover:** Facilitates easy maintenance of components such as the hydraulic unit, electronic control, and motor.



**Motor:** The permanent magnet synchronous motor requires no maintenance.

# LITHIUM POWERED

## EMPOWER YOURSELF WITH THE BEST



Li  
Lithium

POWER THE POSSIBILITIES  
RELIABLE LITHIUM-ION TECHNOLOGY

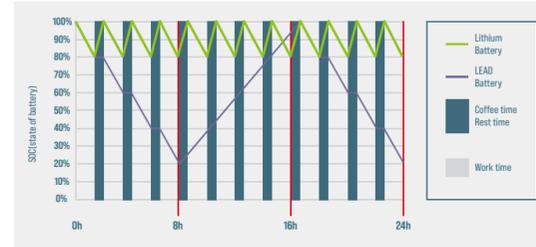
## LITHIUM BATTERY ADVANTAGES

- Long service life**  
4000 full charging cycles with at least 80% residual capacity.
- Cold area application**  
Li-Ion batteries maintain high performance at temperatures below freezing.
- Return on investment**  
Add flexibility to your operation, cost-saving in the long term, increased efficiencies.
- High safety and reliability**  
Intelligent battery management monitoring every important function, no emission of battery gasses.
- Maintenance free**  
No topping up of water or checking acid levels.
- Opportunity charging**  
Full performance during several shifts thanks to effective interim charging.
- High energy density**  
The high energy density of the Li-Ion battery ensures long working times and increases the high availability.

## FEATURES & BENEFITS THE HANGCHA DIFFERENCE

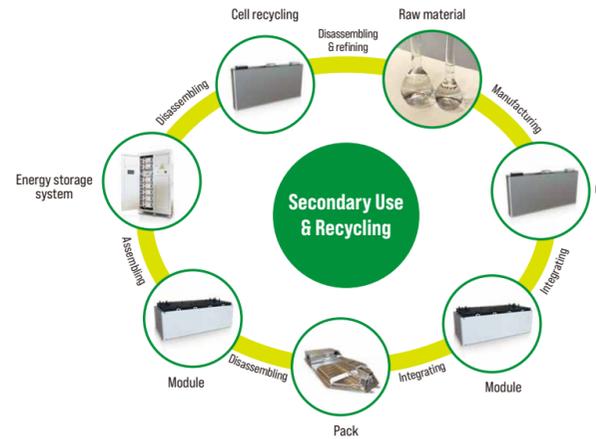
### Efficiency

By quick opportunity charging any downtime, such as a lunch break, can be efficiently used and the battery is recharged in a very short period of time. Interim charging does not affect the battery service life.



### Safety

- / Intelligent battery management monitoring every important function.
- / Higher user safety, thanks to acid-free use.
- / User friendly due to avoided battery change.
- / No emission of battery gasses.



**QUESTION 1** Q: What are the characteristics of lithium batteries, especially when used in high and low temperature environments?

Charging temperature: 0 C - 65 C  
Discharge temperature: -30 C - 65 C  
Storage environment temperature: -30 C - 60 C

After the truck key switch is closed, the instrument battery condition needs to be checked:

1. Confirm that there is no battery system alarm message on the instrument panel.
2. Please check the remaining power before use. It is recommended to use the SOC between 50% and 100%.
3. If the SOC is lower than 20%, it is not recommended to continue using it. Please charge it as soon as possible.

**QUESTION 2** Q: What is the charging time and usage time calculation of forklift lithium battery?

1. Available power of lithium battery (kWh) = rated voltage \* rated power \* 90% (To avoid over-discharge damaging the battery, the forklift is equipped with low power protection (less than 10%).)
2. Charging time (h) = rated capacity of lithium battery (Ah) \* 90% \* charger output current (A).
3. The power consumed for charging (kWh) = the available power of the lithium battery \* 93% (the charging efficiency of the charger is calculated as 93%).
4. Usage time (h) = available power of lithium battery \* energy consumption data.

For specific energy consumption values, please refer to the technical table on the sharing platform.

**QUESTION 3** Q: How does Hangcha BMS work to ensure the safety of the lithium battery?

HANGCHA BMS (battery management system) can monitor the cells at all time. As a result, hangcha lithium power is the reliable solution.

**Battery Safety Management:**  
Overcharge/over discharge protection  
Overcurrent/over-temperature/low-temperature protection  
Multi-level fault diagnosis protection  
Double fault monitoring

**Battery Parameter Detection:**  
Battery voltage detection and analysis  
Battery current detection and analysis  
Battery temperature detection and analysis

**Equilibrium Management:**  
Equalization based on voltage mode  
Equalization based on time mode  
Equalization based on battery cell SOC  
Active/passive equalization optional

**Other Features:**  
Low cost, low power consumption  
Historical data record  
Flexible cascade expansion  
CRC data validation

### Technical data

		HANGCHA GROUP CO.,LTD.		
Distinguishing mark	1.1	Manufacturer (abbreviation)		
	1.2	Manufacturer's type designation	CJD25-XT1-LI	
	1.3	Drive: electric (battery type, mains, ...), diesel, petrol, fuel gas	electric	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	order-picker	
	1.5	Rated capacity / rated load	kg	
	1.6	Load centre distance	c (mm)	
	1.8	Load distance, centre of drive axle to fork	x (mm)	
	1.9	Wheelbase	y (mm)	
	Weight	2.1	Service weight	Kg
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	PU	
	3.2	Tyre size, front	Ø250-80	
	3.3	Tyre size, rear	Ø83-80	
	3.4	Additional wheels (dimensions)	Ø140-70	
	3.5	Wheels, number front/rear (- = driven wheels)	1x • 1/4	
	3.6	Tread, front	b10 (mm)	
Dimensions	3.7	Tread, rear	b11 (mm)	
	4.4	Lift	h3 (mm)	
	4.8	Seat height relating to SIP/stand height	h7 (mm)	
	4.14	Stand height, elevated	h12 (mm)	
	4.15	Height, lowered	h13 (mm)	
	4.19	Overall length	l1 (mm)	
	4.20	Length to face of forks	l2 (mm)	
	4.21	Overall width	b1/b2 (mm)	
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	
	4.25	Fork spread	b5 (mm)	
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	
	4.34.2	Aisle width for pallets 800 • 1200 lengthways	Aa1 (mm)	
	4.35	Turning radius	Wa (mm)	
	Performance	5.1	Travel speed, laden/unladen	km/h
		5.2	Lift speed, laden/unladen	m/s
		5.3	Lowering speed, lade/unladen	m/s
		5.8	Max. gradeability, laden/unladen	%
		5.10	Service brake	regenerative
		Electric engine	6.1	Drive motor rating S2 60 min
6.2	Lift motor rating at S3 15 %		kW	
6.4	Battery voltage/nominal capacity		(V)/(Ah)	
6.5	Battery weight		kg	

Note: 1] According to VDI2198 standard • 88mm.

