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ISO45001:2018

ISO14001:2015

ISO9001:2015

HANGCHA trucks conform to the European Safety Requirements.

X SERIES

ELECTRIC 4-WAY REACH TRUCK

With capacity of 2,000 to 3,000kg

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Making Material Handling Easier

X SERIES

ELECTRIC 4-WAY REACH TRUCK

The 2-3-ton multi-lateral electric forklift can be driven in the modes of straight movement, sideways movement and 360° rotation in situ, etc. It is suitable for places with the need of handling and stacking large and long materials, such as pipes, sheets and wires, and can meet the needs of customers for operations in narrow aisles and high stacking heights.

Streamlined surface modelling, a smooth profile of the beautiful and generous vehicle.

DESIGNED AROUND YOU

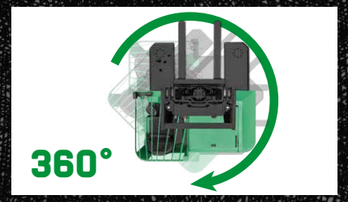
HIGH EFFICIENCY

- The narrow aisles required for handling long stacking materials maximize the space availability of your warehouses.
- A high-power oil pump motor is used. The large-displacement silent gear pumps improve the lifting and descending speed of the fork, as well as its operating efficiency.
- The four-pivot articulated drive and steering axles allow higher passing ability, thus suitable for indoor and outdoor operation.
- The brake kinetic energy regeneration system enables the battery to support longer operating hours after being charged once.

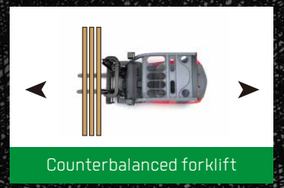
The mast can be moved forward and backward, and equipped with distance adjusting forks, stacking efficiency is improved.

SPACE SAVING

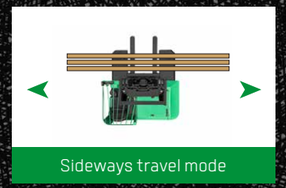
Allowing straight movement, sideways movement, 360° rotation in situ and a small turning radius, the stacker can operate in narrow aisles.



By traveling sideways, even the truck with lengthy load can move through narrow aisle close to the vehicle length.



Counterbalanced forklift



Sideways travel mode

- The high lift mast boasts strong bearing capacity and improved stacking efficiency.
- With a four-pivot structure, the vehicle has good stability when performing a high lift.

The two-step pedals enable the operator to get on and off the stacker more conveniently and comfortably.

COMFORT

- The ergonomically arranged joystick, instruments and switches make operations more comfortable and flexible.
- The suspended cab allows more secure and comfortable operation.
- Electric steering makes steering more gentle and comfortable, and steering mode switching is easier and faster.
- A new integrated instrument cluster has complete functions and clear readings.

Electro-hydraulic proportional fingertip control system allows more accurate and smooth operation of the fork.

The joystick can be adjusted from top to bottom and from front to rear according to the operator's using habits.

With several speed gears, the vehicle is adapted to different operating conditions.

S (Super) P (Power) E (Eco)

STABILITY

Wide body structure design allows the stacker to have good stability.

Overall width

1,850mm

REVOLUTIONARY PERFORMANCE

- Articulated drive and steering axles and suspended cab improve operating comfort.
- With efficient and precise adjustment performance, the newly equipped AC control system supports longer operating hours after being charged once.
- The integrated mechanical, electrical and hydraulic control realizes the step less speed regulation of the vehicle driving and the fork movement, more precisely and stably.

The fully open door enables easy repair, maintenance and tuning.

TECHNOLOGY

Instead of a traditional handbrake, an electromagnetic brake is used to realize the intelligent braking. An intelligent electromagnetic service brake system allows more efficient and safer braking.

Lift speed
(laden/unladen)
320/550mm/s

Lowering speed
(laden/unladen)
535/535mm/s

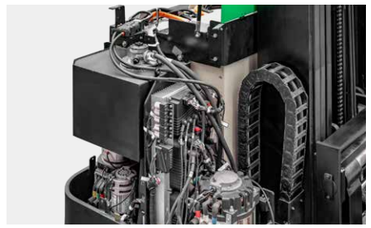
The fork of the vehicle has high lifting and descending speeds and high operation efficiency.

The large-screen LCD display and the gauges with fault self-diagnosis functions can accurately display information in harsh environments.

MADE FOR EASY MAINTENANCE

The brushless AC motor is maintenance-free and significantly reduces the operating cost.

The battery removed from a side of the vehicle enables easy repair and maintenance of the battery.



The electronically controlled electrical components are placed together and highly integrated.

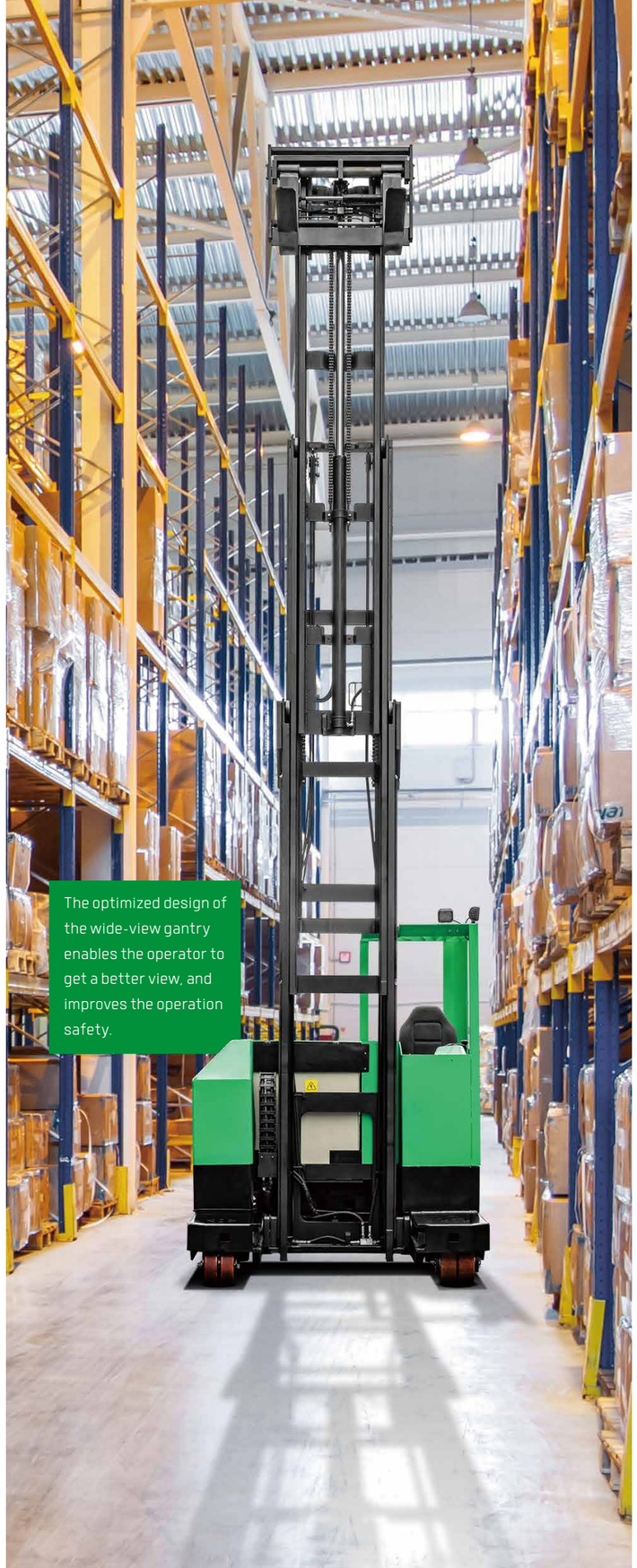
RELIABILITY AND SAFETY

- The four-pivot low center of gravity design and the design high strength of the main force-bearing components of the frame are appropriate to heavy load operating conditions.
- The efficient AC power system has complete protection functions and greatly improved reliability and service life.

The main electrical components such as the motor controller, contactor, power plug and emergency cut-off switch are all products of well-known foreign brands.

The safety pedals eliminate the safety hazard arising from the operator's incorrect operations.

The front and rear wheel braking systems that allow large braking torque are suitable for indoor and outdoor slippery roads to let the operator drive more safely.



The optimized design of the wide-view gantry enables the operator to get a better view, and improves the operation safety.

LI-ION TECHNOLOGY

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

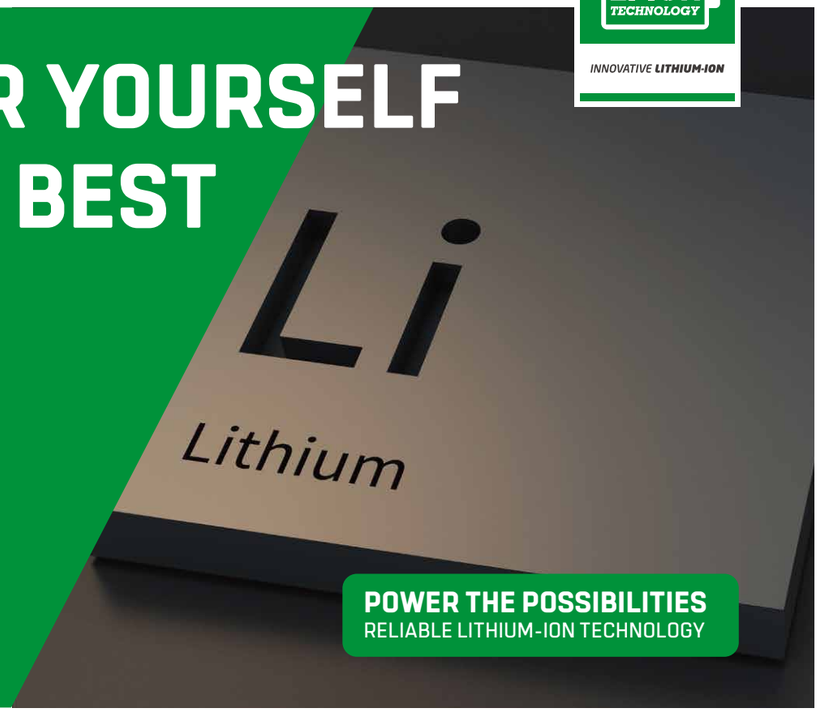
6 YEARS WARRANTY

LITHIUM POWERED

LI-ION TECHNOLOGY

INNOVATIVE LITHIUM-ION

EMPOWER YOURSELF WITH THE BEST



V80 LITHIUM ION

POWER THE POSSIBILITIES
RELIABLE LITHIUM-ION TECHNOLOGY

LITHIUM BATTERY ADVANTAGES

Long service life
4000 full charging cycles with at least 75% 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.

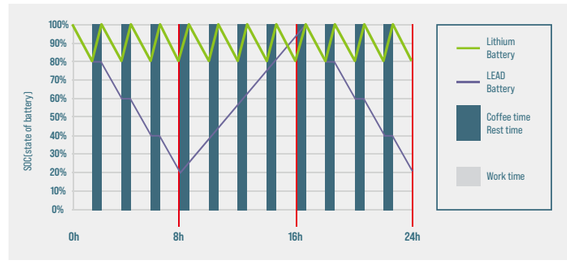
Opportunity charging
Full performance during several shifts thanks to effective interim charging.

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

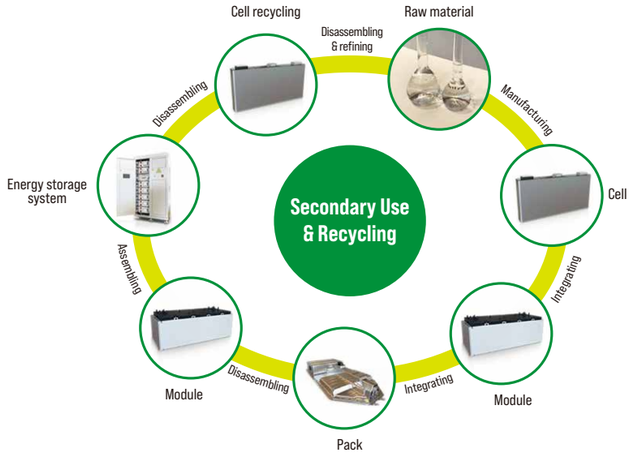
Efficiency

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:	-30℃-65℃
Discharge temperature:	-30℃-65℃
Storage environment temperature:	-30℃-65℃

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 times. 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

Features

Mast	Standard	Options
Standard duplex mast	●	
See the Configuration Table of the Mast		○
Fork and attachment		
Standard fork	●	
Fork carriage	●	
Load backrest	●	
Fork positioner	●	
Non-standard series fork		○
Various attachments		○
Light		
LED headlight	●	
Common alarm lamp		○
Acoustic and optical alarm lamp		○
LED rear lamp		○
Blue lamp		○
Straight projection lamp		○
Horn		
Electric horn	●	
Reversing buzzer	●	
Safety configuration		
Fuse box	●	
OPS system	●	
Safety pedal	●	
Main power switch	●	
Reversing radar		○
Fire extinguisher		○
Speed limit alarm device		○
Driving space		
Standard overhead guard	●	
Steering wheel adjusting device	●	
Anti-skid boarding step	●	
Boarding handle	●	
Electric fan		○
Left and right rearview mirrors		○
Seat		
Standard safety belt seat	●	
Fully-suspended seat		○
Electronic steering		
Electronic steering	●	
Other standard configuration		
Self-locking valve in the tilting fuel circuit	●	
Speed limit valve in the lifting fuel circuit	●	
Hydraulic oil fine filter	●	
Particular market		
CE standard		○
Control mode		
Fingertip system	●	
Instrument rack space		
Smart color-screen instrument (speed mode selection)	●	
Tires		
Polyurethane wheel normally for universal wheel and bearing wheel	●	
Rubber wheel normally for driving wheel	●