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# XE SERIES

ELECTRIC FORKLIFT TRUCK WITH  
LITHIUM POWER

With capacity of 4,000 to 5,000kg



HANGCHA trucks conform  
to the European Safety  
Requirements.

**XE**  
SERIES



# XE SERIES ELECTRIC FORKLIFT TRUCK WITH LITHIUM POWER

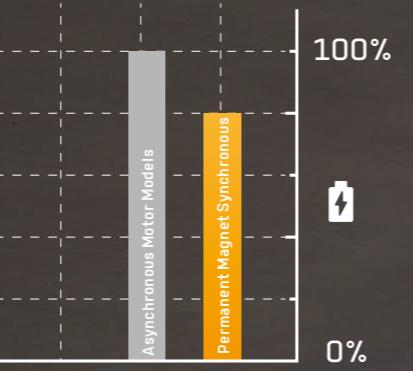
XE series standard lithium battery forklifts are quality products that are developed on the basis of the advantages of the dedicated lithium battery forklift structure and the permanent magnet synchronous motor technology. Inheriting the family design of electric forklifts, some key parts can also be used for internal combustion forklifts.



TAKE  
**ADVANTAGE**  
OF MORE POWER

With the **80V dual permanent magnet synchronous motor system** with higher power density, as well the highly fitted speed reducer, motors and electrical control, under the same operating conditions, compared with the traditional asynchronous motor model, the energy consumption is reduced by 15%-20%.

**15-20%**  
ENERGY SAVING



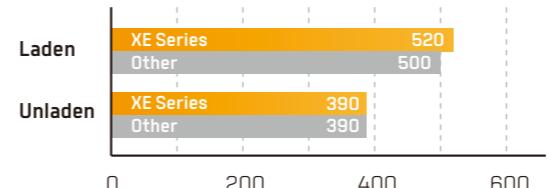
## HIGH EFFICIENCY AND ENERGY SAVING

- With the efficient high-torque motor and high speed ratio speed reducer, upslope degree and acceleration performance are significantly improved.
- The walking motor and lifting motor are both equipped with air coolers to offer better heat dissipation and performance.
- An oil pump reducer is used in the oil pump for the first time to enable the lifting motor to have higher operation efficiency and less energy consumption.

5t load maximum travel speed [km/h]



5t load maximum lift speed [mm/s]



## STYLISH EXTERIOR

- Inherit the family design of dedicated XH and XC series lithium battery forklifts.
- With a smooth and sturdy profile, the vehicle is compact, elegant, stylish and robust.

## ADAPTABILITY TO DIFFERENT SCENARIOS



1

Smooth driving: Increased distance from the ground enables the forklift to adapt to rugged roads outdoors.



2

Flexible turning: With a small turning radius, the forklift can flexibly move in indoor environments such as cold stores (optional), etc.



3

Adaptability to cold weather: For the standard configuration, the battery is equipped with an electric heating module to ensure normal operation in cold weather.



4

Adaptability to rain: The protection level of the vehicle reaches level IPX4, so it can easily resist rainstorms.

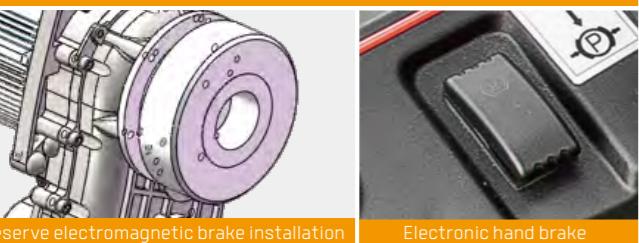


## EXCELLENT VISION

Inheriting the advantages of lithium battery forklifts-wide view, large operation space and excellent ergonomic design.

## EPB (Electric Parking Brake) (optional)

The gearbox reserves an installation position for electromagnetic brakes, which can be optionally equipped with an electronic handbrake for more comfortable use.



## COMFORTABLE EXPERIENCE



Large diameter steering wheel for flexible steering and more effortless operation.



Increase the lever ratio to the control lever, resulting in less control force and more comfort.



The color-screen instruments are designed to have graphical interfaces and display data clearly.

## RELIABILITY AND DURABILITY

Having passed the standard verification for both electric forklifts and internal combustion forklifts where the test stringency is higher than that for internal combustion forklifts, the forklift is reliable and durable.



Low center



## EASY MAINTENANCE

Maintenance of the entire vehicle is convenient. The side door and front and rear bottom door can be removed without tools, and all maintenance parts are within easy reach.



Battery roll out easily



Open the cover at a wide angle



## KEEP AN EYE ON EVERYTHING

Hangcha FIMS is a system that provides you with real-time information about forklift truck and driver. Whether you have dozens or hundreds of forklift trucks across multiple sites, you can get access to collecting, monitoring and evaluating all the fleet data at anytime and anywhere.

### » Features

- Access Control
- Vibration Monitoring
- GPS Tracking
- Pre-shift Check (Optional)
- Remote Monitoring
- Shift Management (Optional)
- Maintenance Reminder
- Vehicle Management
- OpenAPI (Optional)



### Optional battery list

Capacity(Ah)	XE 4-5t	
80V/460Ah	●	EVE
80V/504Ah	☆	CATL
80V/560Ah	○	EVE
80V/608Ah	○	EVE
80V/840Ah	○	EVE
80V/906Ah	☆	CATL

Note: ● Battery; ○ Battery Opt; ☆ Same as XC series



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

**6 YEARS  
WARRANTY**

# 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 75% residual capacity.



### Return on investment

Add flexibility to your operation, cost-saving in the long term, increased efficiencies.



### Maintenance free

No topping up of water or checking acid levels.



### High energy density

The high energy density of the Li-Ion battery ensures long working times and increases the high availability.



### Cold area application

Li-Ion batteries maintain high performance at temperatures below freezing.



### High safety and reliability

Intelligent battery management monitoring every important function, no emission of battery gasses.



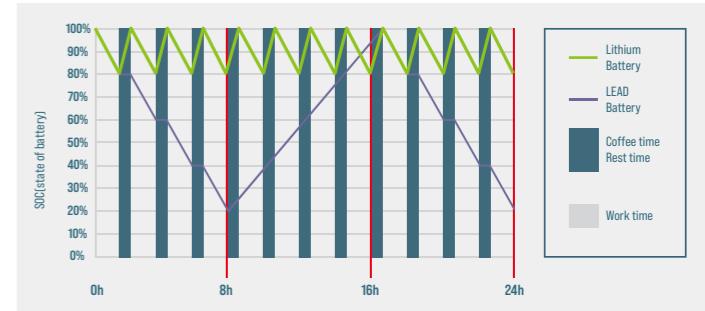
### Opportunity charging

Full performance during several shifts thanks to effective interim charging.

## FEATURES & BENEFITS THE HANGCHA DIFFERENCE

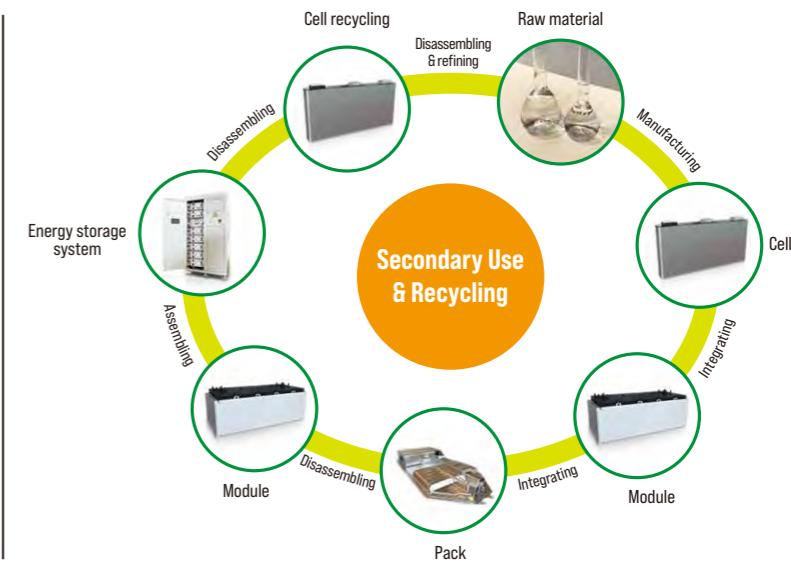
### Efficiency

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

Color	Standard	Options
Yellow-black	●	
Other customized color		○
<b>Particular market</b>		
CE Standard		○
<b>Cold storage environment</b>		
-18°C/-30°C		○
<b>Mast</b>		
Standard duplex mast	●	
Configuration Table of the Mast		○
<b>Fork and attachment</b>		
Standard fork	●	
Fork arm carrier	●	
Load backrest	●	
Non-standard series fork		○
Various attachments		○
<b>Tires</b>		
Pneumatic tire (single)	●	
Pneumatic tire (dual)		○
Solid tire (single)		○
Solid tire (dual)		○
<b>Multiway valve</b>		
Double multi-way valve	●	
3rd valve		○
4th valve		○
5th valve (4.0-5.0t)		○
<b>Tiller</b>		
Lifting and tilting level	●	
Fingertip system		○
<b>Battery</b>		
Standard lithium battery	●	
Large-capacity lithium battery		○
Quick-change lithium battery		○
<b>Light</b>		
LED head lamp	●	
Turn signal lamp	●	
LED rear combination lamp	●	
Common alarm lamp		○
Acoustic and optical alarm lamp		○
LED rear lamp		○
Blue light		○
Straight projection lamp		○
<b>Horn</b>		
Electric horn	●	
Reverse buzzer	●	
Right rear armrest with horn button		○
<b>Smart module</b>		
FIMS(Fleet intelligent management system)		○

Safety configuration	Standard	Options
Emergency power-off switch	●	
Fuse box	●	
Soft landing	●	
Reversing radar		○
OPS system		○
Fire extinguisher		○
Ascending buffering		○
<b>Parking brake</b>		
Mechanical handbrake	●	
EPB(Electric Parking Brake)		○
<b>Service braking</b>		
Hydraulic assisted braking	●	
<b>Instrument rack space</b>		
Smart color-screen instrument (speed mode selection)	●	
Combination switch	●	
Cigarette lighter		○
USB port		○
Electronic code lock (start by swiping a card)		○
<b>Driving space</b>		
Standard overhead guard	●	
Central rear view mirror	●	
Front windshield		○
PVC ceiling		○
Cab		○
Electric fan		○
Left and right rear view mirrors		○
<b>Seat</b>		
Standard seat	●	
Fully-suspended seat		○
Semi-suspended seat		○
<b>Other standard configuration</b>		
Drive and lifting controllers	●	
Driving and lifting motors	●	
Oil pump reducer	●	
Silent gear pump	●	
DC-DC converter	●	
Pedal pad	●	
Traction pin	●	
Integral stamped side panel and hood	●	