



ENERGY ADVANCE CO., LTD

77/7 SOI SUWINTHAWONG 33, LUMPAKCHEE,  
NONG CHOK, BANGKOK 10530

SERVICE@ENERGYADVANCE.CO.TH  
WWW.FORX.CO.TH



LINE OA : @FORX

**HIGH-VOLTAGE LITHIUM BATTERY ROUGH TERRAIN FORKLIFT**

with capacity of 1,500 to 3,500kg

LI-ION TECHNOLOGY  
INNOVATIVE LITHIUM-ION

**FORX**

# HIGH-VOLTAGE LITHIUM BATTERY ROUGH TERRAIN FORKLIFT

The 1.5-3.5t high-voltage lithium battery rough terrain forklifts are independently-developed new series lithium battery rough terrain products that combine the advantages of XH series dedicated heavy-duty high-voltage lithium battery forklifts and rough terrain internal combustion forklifts. Representing a breakthrough over the traditional design and a new generation of rough terrain forklifts, the forklift of this series is equipped with pioneered front and rear dual-motor forklift high-voltage drive systems and a new energy vehicle high-voltage platform to offer both performance of rough terrain forklift and comfort of electric forklift.

VOLTAGE

**309V**

PROTECTION RATE

**IP67**

WATER RESISTANCE

**IP67**

100% CHARGE FOR

**1.5Hour**

SPEED MODELS

**3**

## Appearance

With the inherited classic exterior design of internal combustion off-road forklifts as well as a sturdy profile and a custom pitch down streamlined design, the vehicle is robust and elegant in appearance.

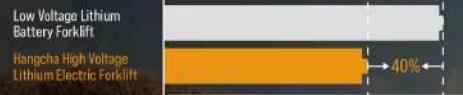
**2WD & 4WD**  
ROUGH TERRAIN ROUGH TERRAIN



# FASTER & MORE EFFICIENCY.

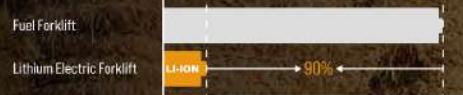
Compared with low-voltage lithium battery forklifts, high-voltage lithium battery technology can save about 40% of the overall cost during the service cycle.

**40%**



Compared with fuel forklifts, high-voltage lithium battery technology can save about 90% of the overall cost during the service cycle.

**90%**



**LI-ION**  
TECHNOLOGY

**6 YEARS**  
WARRANTY

Through disruptive battery and fast charging technology, the charging time is greatly shortened.

Fast charging makes it possible for the whole vehicle to work continuously, shortening the waiting time and greatly improving efficiency.

Get the battery fully charge:

  
**1.5h**

  
**10h**

Hangcha High Voltage  
Electric Forklift

Electric Forklift

HIGH-VOLTAGE

**38.625kWh**

Battery capacity

1.5-1.8t

HIGH-VOLTAGE

**46.350kWh**

Battery capacity

2.5-3.5t



# OFF ROAD PERFORMANCE

## Excellent passing performance

- The differential mechanism lock and one-click switchover between double-drive mode and four-drive mode are specially designed for rugged terrain and harsh natural environments.
- Low vehicle height and the optional low-height mast meet not only outdoor but also indoor and underground site operating requirements.



## Efficient operating performance

- The efficient high-torque permanent magnet synchronous motor and the high speed ratio speed reducer offer power performance and handling performance rival that of rough terrain internal combustion forklifts.
- The new front and rear drive design effectively increase the layout space. The vehicle controller controls the front and rear motor torque to be flexibly distributed according to various special operating conditions.



	High Voltage Lithium Battery Rough Terrain Forklift	Internal Combustion Rough Terrain Forklifts
Travel speed, laden/unladen	24/26km/h	24/25km/h
Lift speed, laden/unladen	620/660mm/s	620/640mm/s
Max. gradeability, S2-5min, laden/unladen	63-52%	58-52%

## Excellent heat dissipation performance

- The water chilling system for electric control and motor and the large vent design for rough terrain internal combustion forklift offer quick heat exchange and better heat dissipation performance.
- The external hydraulic tank integrated with the vehicle frame offers better heat dissipation and ensures the long reliable operations of the hydraulic parts.



**“**The design of large passing angle and large distance from the ground, as well as the large-tread tubeless tires, can perfectly adapt to various bad road conditions.

— Hangcha R & D Center

Front tyre:14.17.5 Rear tyre:10.0/75-15.3



## Wide-base deep tread tyres

The drive axle is equipped with wide-base deep tread tires, wet brake, differential mechanism with electronic lock, as well as reinforced steering drive axle, and can better adapt to special working conditions.



Higher specification fork mounting level-3B, more weight can be loaded.

# TOUGH TRIED AND TRUE

1.5  
HOUR  
CHARGING TIME

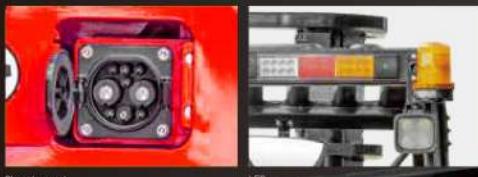
## Excellent Vision



The panoramic wide-view design offers a wide view through the mast and overhead guard. The horizontal level of the front and rear sides, the left and right sides.

## Energy saving and high efficiency

- Both the drive and operating systems are efficient vehicle-grade permanent magnet synchronization systems with low energy consumption.
- With a super fast charging technology, the long-lasting large-capacity lithium battery can be fully charged in about **1.5 hours** so that the time of waiting for operations is significantly reduced.
- The LED lighting system of the vehicle has low energy consumption and a longer service life.



Charging port

LED



*Inherited from the rough terrain internal combustion series, the suspended overhead guard and the suspended shock-absorbing seat bring comfortable driving experience.*

## Safety and reliability

- The wet brake drive axle and the large swing angle steering drive axle, peers for rough terrain internal combustion forklifts, have good versatility and guaranteed quality.
- Electrical connectors of the vehicle are designed to be waterproof and main high-voltage electrical components reach the dust and water resistance level of IP67. The electrical system has high-voltage interlocking.



The MSD maintenance switch enables one-click power-down and safer maintenance.



Each product of this series is equipped with a CATL lithium battery and can be equipped with an optional automatic fire extinguisher for safer use. The suspended shock-absorbing battery pack offers higher reliability of the battery.



## Comfort and convenience

- The multi functional color-screen instruments are designed to have graphical interfaces and display data clearly.
- The fully enclosed instrument cover and the low-noise gear pump further reduce the noise of the vehicle.
- The wide-opened hood, detachable front and rear baseplates and detachable double water tank lids facilitate repair and maintenance.

## Features

	Standard	Options
<b>Truck</b>		
Standard duplex mast, fork, fork carriage and load backrest	●	
Stamped iron hood	●	
Stamped stainless steel boarding step	●	
Load sensing steering system	●	
Fork descending buffering	●	
SPE power selection	●	
Electronic water pump	●	
Heat dissipater	●	
Expansion tank	●	
Duplex multiway valve	●	
Silent gear pump	●	
Widened load backrest	●	
Widened fork carriage	●	
Differential mechanism lock	●	
Free triplex mast		○
Built-in side shifter		○
Accessories for other specifications		○
Forks of other lengths		○
<b>Cab</b>		
Electronic fan	●	
Toolbox, folder	●	
Suspended safety seat	●	
Operator presence sensing system (OPS)		○
Start with a PIN code or by swiping a card		○
Cab		○
<b>Controls and instruments</b>		
Multi-function color-screen combination instrument	●	
Integrated fuse box	●	
Two-in-one permanent magnet AC traction motor controller	●	
Two-in-one permanent magnet AC oil pump motor controller	●	
Two-in-one DC-DC power supply	●	
VCU controller	●	
MSD maintenance switch	●	
Emergency shut-off switch	●	
Mileage display, operating time display	●	
<b>Safety</b>		
The gas spring of the hood with a touch-proof mechanism	●	
Handbrake with a touch-proof mechanism	●	
Reversing buzzer	●	
Reverse armrest (containing a horn button)	●	
Suspended overhead guard	●	
Tilt cylinder jacket		○
Left and right rear view mirrors		○
Reversing video		○
Lockable hood		○
Fire extinguisher		○
High and low overhead guards		○
<b>Lights</b>		
LED combination headlights and tail lights	●	
Rear working light	●	
Alarm light	●	
Front/rear blue lights		○
<b>Other</b>		
Charging nozzle meets national standards	●	
Lithium battery pack	●	
Lithium battery pack with low temperature electric heating systems	●	
Traction pin	●	
Hangcha cloud intelligent management system	●	
Level	●	
Solid tire		○
Dedicated lithium battery charger		○
Triple multi-way valve		○
Quadruple multi-way valve		○
Quintuple multi-way valve		○

