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ISO14001:2015



ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.



# XH SERIES

HIGH-VOLTAGE LITHIUM BATTERY FORKLIFT

With capacity of 28,000 to 35,000kg



# BECOME THE FORKLIFT MEETING YOUR DIFFERENT NEEDS.

VOLTAGE

**618 V**

VEHICLE WATER RESISTANCE

**IPX4**

CHARGING TIME (20-100%)

**1.0 Hour**

TRAVEL SPEED

**26km/h**

SPEED MODELS

**3** S/P/E mode  
(Super/Power/Eco)

PROTECTION RATE

**IP67**



## XH SERIES HIGH-VOLTAGE LITHIUM BATTERY FORKLIFT

Your reliable, powerful and connected working machine.

Independently developed by Hangcha on the basis of decades of deep understanding of electric forklifts and internal combustion forklifts, XH series high-voltage counterweight lithium battery forklifts are a new series of high-voltage counterweight lithium battery forklifts that first use a new energy vehicle voltage platform and represent a breakthrough over the traditional design concept. Representing a redefinition of electric forklifts in terms of efficiency, power, reliability, etc.,

XH series forklift models have performance and operating condition completely superseding that of the internal combustion forklifts.





# FASTER EFFICIENCY

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.

**LI-ION**  
TECHNOLOGY

**6 YEARS**  
WARRANTY

HANGCHA provides Li-ion battery (LiFePO<sub>4</sub>) with 6 years or 12000 hours warranty.

HIGH-VOLTAGE

**282kWh**

Battery capacity

THE *Plus*  
FOR YOUR  
BUSINESS



# A PERFECT COMBINATION

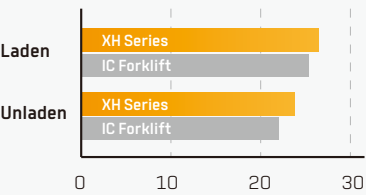
With the inherited exterior design of X series internal combustion forklifts and a smooth and sturdy profile, the whole vehicle is stylish, sturdy and powerful, showing modern industrial aesthetics.



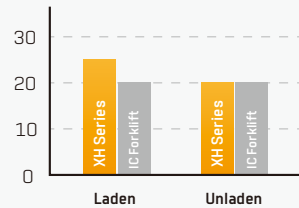
## ADVANCEMENT

A high-torque permanent magnet synchronous motor provides strong power for the vehicle with performance indicators benchmarked against that of internal combustion forklifts.

### Travel speed (km/h)

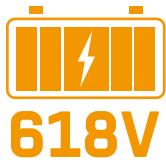


### Max. gradeability(%)



# ULTRA LONG BATTERY LIFE

- A large-capacity lithium battery for the standard configuration can meet the long battery life need.
- Both the drive and operating systems are efficient and energy-saving vehicle-grade permanent magnet synchronization systems.
- High-voltage platform, less vehicle current and minimal system heat loss.
- A double-motor walking system increases the range of high efficiency and saves energy significantly.
- Braking energy recovery effectively prolongs operating time.



- A 618V high-voltage platform with low system loss, a standard chilled water tank for heavy-duty truck to achieve good heat dissipation.
- With motor, electric control and battery adopting liquid-cooling heat dissipation, the forklift can absolutely carry out long-time and high-intensity operations as internal combustion forklifts.



The vehicle has independently developed VCU program along with PDU+MCU+BMS+DC/DC to form a reliable and efficient drive system with flexible function configuration.



# RELIABILITY AND SAFETY



The cover of the vehicle is designed to be sealed to the water resistance level of IPX4. All the motor and electronic controls reach the dust and water resistance level of IP67, a high protection level adequate to withstand harsh operating environments.



- Both the battery and junction box have MSD(Manual Service Disconnect) maintenance switches to enable one-click power-down and safer maintenance.
- The high-voltage lithium battery is equipped with an automatic fire extinguisher for the standard configuration. The vehicle is equipped with a pipe network automatic fire extinguisher for the standard configuration.



- The electrical system has high-voltage interlocking, insulation monitoring and potential balancing functions to offer vehicle-grade safety.
- Key structural parts have been verified highly reliable by the market for many years while being used by internal combustion forklifts.



A turning deceleration function effectively reduces risk of tipping over.



## INTELLIGENCE

- A vehicle central controller is provided, which has bus architecture, several built-in diagnosis and management functions and a central fault alarm function.
- An optional intelligent management system is provided to enable intelligent remote monitoring and easier equipment management and logistics management.



## MAINTAINABILITY

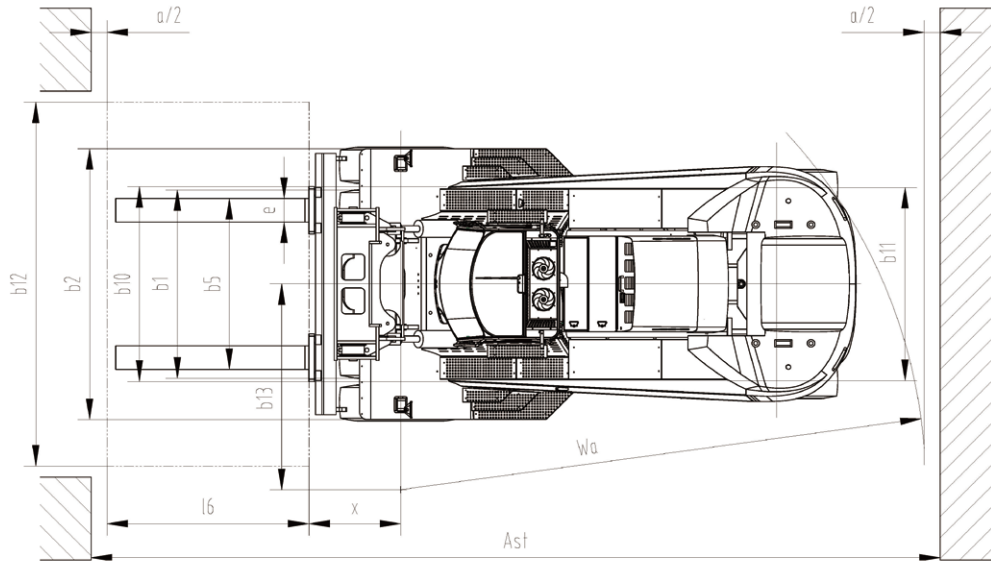
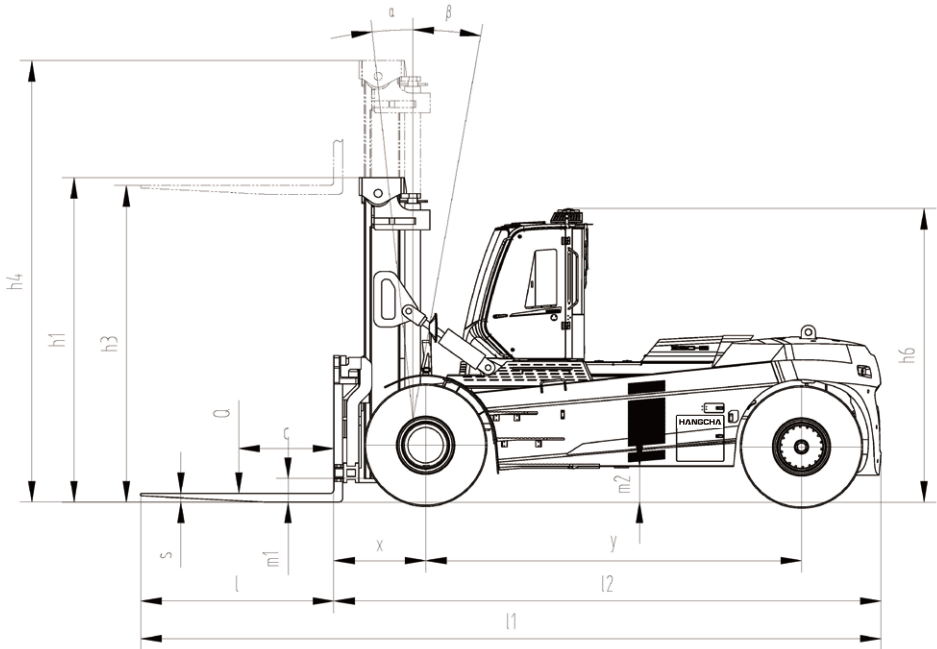
- The overturnable cab and electric tipping cylinder make tipping easier and more labor-saving.
- The wide-opened hood and removable cover better facilitate repair and maintenance of electrical components.





Technical Data

|                     |        |   |                          |   |               |               |               |
|---------------------|--------|---|--------------------------|---|---------------|---------------|---------------|
| Distinguishing mark | 1.1    | Manufacturer  |                          | HANGCHA GROUP CO.,LTD.                                  |               |               |               |
|                     | 1.2    | Manufacturer's type designation                                 |                          | CPD280-XHJG   | CPD300-XHJG   | CPD320-XHJG   | CPD350-XHJG   |
|                     | 1.3    | Drive: electric (battery or mains), diesel, petrol, fuel gas    |                          | Electric  | Electric      | Electric      | Electric      |
|                     | 1.4    | Operator type: hand, pedestrian, standing, seated, order-picker |                          | Seated  | Seated        | Seated        | Seated        |
|                     | 1.5    | Rated capacity/rated load                                       | Q (kg)                   | 28000   | 30000         | 32000         | 35000         |
| Weight              | 1.6    | Load centre distance  | c (mm)                   | 1200  | 1200          | 1200          | 1200          |
|                     | 1.8    | Load distance, centre of drive axle to fork                     | x (mm)                   | 1160  | 1160          | 1160          | 1180          |
|                     | 1.9    | Wheelbase   | y (mm)                   | 4750  | 4750          | 4750          | 4750          |
|                     | 2.1    | Service Weight  | kg                       | 42400   | 44100         | 45200         | 48000         |
| Tyres, chassis      | 2.2    | Axle loading, laden front/rear                                  | kg                       | 58500/11900   | 61800/12300   | 64400/12800   | 69000/14000   |
|                     | 2.3    | Axle loading, unladen front/rear                                | kg                       | 20800/21600   | 21700/22400   | 22300/22900   | 23700/24300   |
|                     | 3.1    | Tyres: solid rubber, superelastic, pneumatic, polyurethane      |                          | Pneumatic   | Pneumatic     | Pneumatic     | Pneumatic     |
|                     | 3.2    | Tyre size, front  |                          | 16.00-25-32PR   | 16.00-25-32PR | 16.00-25-32PR | 16.00-25-36PR |
| Dimensions          | 3.3    | Tyre size, rear   |                          | 16.00-25-32PR   | 16.00-25-32PR | 16.00-25-32PR | 16.00-25-36PR |
|                     | 3.5    | Wheels, number front / rear (x - driven wheels)                 |                          | 4/2   | 4/2           | 4/2           | 4/2           |
|                     | 3.6    | Tread, front  | b10 (mm)                 | 2462  | 2462          | 2462          | 2462          |
|                     | 3.7    | Tread, rear   | b11 (mm)                 | 2440  | 2440          | 2440          | 2440          |
|                     | 4.1    | Tilt of mast/fork carriage forward/backward                     | $\alpha/\beta(^{\circ})$ | 6/10  | 6/10          | 6/10          | 6/10          |
|                     | 4.2    | Height, mast lowered  | h1 (mm)                  | 4100  | 4100          | 4100          | 4100          |
|                     | 4.3    | Free lift   | h2 (mm)                  | 110   | 110           | 110           | 110           |
|                     | 4.4    | Lift  | h3 (mm)                  | 4000  | 4000          | 4000          | 4000          |
|                     | 4.5    | Height, mast extended   | h4 (mm)                  | 6045  | 6045          | 6045          | 6045          |
|                     | 4.7    | Height of cabin   | h6 (mm)                  | 3710  | 3710          | 3710          | 3710          |
|                     | 4.8    | Seat height/stand height  | h7 (mm)                  | 2420  | 2420          | 2420          | 2420          |
|                     | 4.12   | Coupling height   | h10 (mm)                 | 740   | 740           | 740           | 740           |
|                     | 4.19   | Overall length  | l1 (mm)                  | 9350  | 9350          | 9350          | 9370          |
|                     | 4.20   | Length to face of forks   | l2 (mm)                  | 6910  | 6910          | 6910          | 6930          |
|                     | 4.21   | Overall width   | b2 (mm)                  | 3420  | 3420          | 3420          | 3420          |
|                     | 4.22   | Fork dimensions   | s/e/l (mm)               | 110/300/2440  | 110/300/2440  | 110/300/2440  | 125/300/2440  |
|                     | 4.24   | Fork-carriage width   | b3 (mm)                  | 3300  | 3300          | 3300          | 3300          |
|                     | 4.25   | Distance between fork-arms                                      | b5 (mm)                  | 1000-3000   | 1000-3000     | 1000-3000     | 1000-3000     |
|                     | 4.31   | Ground clearance, laden, below mast                             | m1 (mm)                  | 300   | 300           | 300           | 300           |
|                     | 4.32   | Ground clearance, centre of wheelbase                           | m2 (mm)                  | 450   | 450           | 450           | 450           |
| Performance data    | 4.34.1 | Aisle width for load length 2400mm                              | Ast (mm)                 | 10360   | 10360         | 10360         | 10380         |
|                     | 4.35   | Turning radius  | Wa (mm)                  | 6600  | 6600          | 6600          | 6600          |
|                     | 4.36   | Internal turning radius   | b13 (mm)                 | 880   | 880           | 880           | 880           |
|                     | 5.1    | Travel speed, laden/unladen                                     | km/h                     | 24/26   | 24/26         | 24/26         | 24/26         |
|                     | 5.2    | Lift speed, laden/unladen                                       | m/s                      | 0.30/0.34   | 0.28/0.32     | 0.28/0.32     | 0.26/0.30     |
|                     | 5.3    | Lowering speed, laden/unladen                                   | m/s                      | 0.47/0.33   | 0.47/0.33     | 0.47/0.33     | 0.47/0.33     |
|                     | 5.6    | Max. Drawbar pull, laden/unladen                                | N                        | 150000  | 150000        | 150000        | 150000        |
|                     | 5.8    | Max. gradeability, laden/unladen                                | %                        | 20/25   | 20/25         | 20/25         | 20/25         |
|                     | 5.9    | Acceleration time, laden/unladen (0-10m)                        | s                        | 5.0/4.3   | 5.0/4.3       | 5.2/4.5       | 5.2/4.5       |
|                     | 5.10   | Service brake   |                          | Wet disc brake system(WDB)                              |               |               |               |
| Electric drivetrain |        | Parking brake   |                          | Spring Applied, Hydraulic release multidisc brake(SAHR) |               |               |               |
|                     | 6.1    | Drive motor rating S9 60 min Rated/Peak                         | kW                       | 196/260   | 196/260       | 196/260       | 196/260       |
|                     | 6.2    | Lift motor rating at S9 15% Rated/Peak                          | kW                       | 2x85/125  | 2x85/125      | 2x85/125      | 2x85/125      |
|                     | 6.4    | Battery Capacity  | kWh / Ah                 | 282/456   | 282/456       | 282/456       | 282/456       |
|                     |        | Nominal Voltage   | V                        | 618   | 618           | 618           | 618           |
| Addition data       | 6.5    | Battery weight  | kg                       | 2600  | 2600          | 2600          | 2600          |
|                     | 10.1   | Operating pressure for attachments                              | MPa                      | 16  | 16            | 16            | 16            |
|                     | 10.2   | Oil volume for attachments                                      | l/min                    | 120   | 120           | 120           | 120           |
|                     | 10.3   | Hydraulic Tank - capacity (drain & refill)                      | liter                    | 610   | 610           | 610           | 610           |
|                     | 10.7   | Sound pressure level at the driver's seat                       | dB [A]                   | 70  | 70            | 70            | 70            |



28-32t Mast Specification:(Pneumatic)

| Type           | Model          | Max. fork height | Overall height |          | Tilt range | Capacity                |       |       |
|----------------|----------------|------------------|----------------|----------|------------|-------------------------|-------|-------|
|                |                |                  | Lowered        | Extended | FWD/RWD    | Load capacity at 1200mm |       |       |
|                |                | mm               | mm             | mm       | (°)        | 28t                     | 30t   | 32t   |
| Wide view mast | GXR280/320M360 | 3600             | 3900           | 5690     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M400 | 4000             | 4100           | 6090     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M430 | 4300             | 4250           | 6390     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M450 | 4500             | 4350           | 6590     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M480 | 4800             | 4500           | 6890     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M500 | 5000             | 4650           | 7140     | 6/10       | 28000                   | 30000 | 32000 |
|                | GXR280/320M550 | 5500             | 4900           | 7640     | 3/6        | 26500                   | 28500 | 30500 |
|                | GXR280/320M600 | 6000             | 5200           | 8190     | 3/6        | 25000                   | 27000 | 29000 |
|                | GXR280/320M650 | 6500             | 5450           | 8690     | 3/6        | 23000                   | 25000 | 27000 |
|                | GXR280/320M700 | 7000             | 5750           | 9240     | 3/6        | 21000                   | 23000 | 25000 |

35t Mast Specification:(Pneumatic)

| Type           | Model      | Max. fork height | Overall height |          | Tilt range | Capacity                |
|----------------|------------|------------------|----------------|----------|------------|-------------------------|
|                |            |                  | Lowered        | Extended | FWD/RWD    | Load capacity at 1200mm |
|                |            | mm               | mm             | mm       | (°)        | 35t                     |
| Wide view mast | GXR350M360 | 3600             | 4150           | 5940     | 6/10       | 35000                   |
|                | GXR350M400 | 4000             | 4350           | 6340     | 6/10       | 35000                   |
|                | GXR350M430 | 4300             | 4500           | 6640     | 6/10       | 35000                   |
|                | GXR350M450 | 4500             | 4600           | 6840     | 6/10       | 35000                   |
|                | GXR350M480 | 4800             | 4750           | 7140     | 6/10       | 35000                   |
|                | GXR350M500 | 5000             | 4900           | 7390     | 6/10       | 35000                   |
|                | GXR350M550 | 5500             | 5150           | 7890     | 3/6        | 33500                   |
|                | GXR350M600 | 6000             | 5450           | 8440     | 3/6        | 32000                   |
|                | GXR350M650 | 6500             | 5700           | 8940     | 3/6        | 30000                   |
|                | GXR350M700 | 7000             | 6000           | 9490     | 3/6        | 28000                   |



Features

| Transmission   | Standard | Options |
|--|----------|---------|
| Pneumatic tyre                                       | ●        |         |
| Solid tyre   |          | ○       |
| Steering system                                      |          |         |
| Fully hydraulic power steering                       | ●        |         |
| Centralized lubrication system (machine)             |          | ○       |
| Truck  |          |         |
| Tow pin  | ●        |         |
| Electrostatic discharge chain                        | ●        |         |
| Rear-view mirror on right & left mudguards           | ●        |         |
| Operating system                                     |          |         |
| Integrated joystick                                  | ●        |         |
| Adjustable steering column                           | ●        |         |
| Adjustable armrest                                   | ●        |         |
| Hydraulic system                                     |          |         |
| Variable hydraulic pump system                       | ●        |         |
| Four-way hydraulic valve                             |          | ○       |
| Operation proportion control                         | ●        |         |
| Cab  |          |         |
| Cabin  | ●        |         |
| Climate control system (air-conditioning and heater) | ●        |         |
| Manual tilting cabin                                 | ●        |         |
| Electric tilting cabin                               | ●        |         |
| Radio  | ●        |         |
| Sunshade   | ●        |         |
| USB charging interface                               | ●        |         |
| Clothes hanger hook                                  | ●        |         |
| Reading light  | ●        |         |
| 1 x 24V power supply                                 |          | ○       |
| 1 x 12V power supply                                 |          | ○       |
| License plate frame                                  |          | ○       |
| Fan  | ●        |         |
| Lifting components                                   |          |         |
| Duplex mast  | ●        |         |
| Standard lifting height                              | ●        |         |
| Optional lifting height                              |          | ○       |
| Standard fork  | ●        |         |
| Other fork specifications                            |          | ○       |
| Fork hook on type                                    |          | ○       |
| Hydraulic Fork Positioning                           | ●        |         |
| Independently-adjustable fork                        |          | ○       |
| Built in Sideshift                                   | ●        |         |
| Other  |          |         |
| Standard color                                       | ●        |         |
| User defined colour                                  |          | ○       |
| Vehicle toolkit                                      | ●        |         |

| Electrical System  | Standard | Options |
|--|----------|---------|
| Operator Presense System (OPS) with buzzer                 | ●        |         |
| LCD display screen   | ●        |         |
| Main power switch  | ●        |         |
| Emergency power off switch                                 | ●        |         |
| Maintenance-free 24V lead acid battery                     | ●        |         |
| Reverse buzzer   | ●        |         |
| High decible horn  | ●        |         |
| LED lights (entire vehicle)                                | ●        |         |
| 2 x Working light on front mudguard                        | ●        |         |
| 2 x Front working light on top of cabin                    | ●        |         |
| 2 x Rear working light on top of cabin                     | ●        |         |
| 2 x Working light on both sides of mast                    | ●        |         |
| Reverse sensor   | ●        |         |
| Rearview camera system                                     | ●        |         |
| Rearview camera system with memory                         |          | ○       |
| Front & rearview camera system                             |          | ○       |
| Front & rearview camera system with memory                 |          | ○       |
| 4 directions camera system with single display             |          | ○       |
| 4 directions camera recording system with single display   |          | ○       |
| Rear blue safety light                                     |          | ○       |
| Front and rear blue safety light                           |          | ○       |
| Three sided blue danger zone light                         |          | ○       |
| Overspeed alarm  |          | ○       |
| Speed limitation   |          | ○       |
| Voice reverse alarm  |          | ○       |
| Automatic fire suppression system                          | ●        |         |
| Automatic fire suppression system for lithium battery pack | ●        |         |
| Two-way radio  |          | ○       |
| Weight indicator in display                                |          | ○       |
| Flashing warning light (non rotating) with control switch  | ●        |         |
| Tyre pressure monitoring                                   |          | ○       |
| On-board diagnostics system                                | ●        |         |
| Water cooling system for lithium battery                   | ●        |         |
| Manual Service Disconnect (MSD) switch                     | ●        |         |
| High voltage interlock                                     | ●        |         |
| Insulation protection                                      | ●        |         |
| Power-on self-test   | ●        |         |
| Energy recovery (braking regeneration)                     | ●        |         |
| Vehicle Control Unit (VCU)                                 | ●        |         |
| Dual charging ports  | ●        |         |
| Turning deceleration                                       |          | ○       |
| Hour meter   | ●        |         |
| Battery charge indicator                                   | ●        |         |
| Low hydraulic pressure alarm indicator                     | ●        |         |
| Hydraulic oil filter warning indicator                     | ●        |         |
| Drive mode indicator                                       | ●        |         |
| Parking brake indicator                                    | ●        |         |
| Service indicator  | ●        |         |
| In cabin CCTV  |          | ○       |