Features

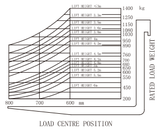
Truck	Standard	Options
48V permanent magnet synchronous drive motor	●	
Hydraulic power unit	●	
PU wheel	●	
1150mm fork length	●	
570mm outside fork width	●	
Overhead guard	●	
Lifting damping system	●	
Multi-function tiller	●	
48V/80Ah lithium battery (EVE)	●	
Additional wheels	●	
Dual load wheels	●	
USB power supply	●	
Fork lift & lower adopts stepless speed regulating	●	
Different length of forks		○
Different width of outside fork		○
Different lift height (see mast table)		○
Key switch		○
48V/105Ah lithium battery (EVE)		○
48V/125Ah lithium battery (CATL)		○
Load backrest		○
Lithium battery(48V/80Ah,EVE) with the on-board charger(48V,20A)		○
Lithium battery(48V/105Ah,EVE) with the on-board charger(48V,20A)		○
Controls and instruments		
Electric steering	●	
Systech controller	●	
Interactive meter	●	
Non contact interlock switch	●	
Safety		
Emergency disconnect switch	●	
Horn	●	
PIN code access	●	
Turning deceleration	●	
Mast protection		○

1.4t/1.6t Mast Specification

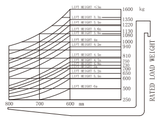
Type	Max. lifting height h_3	Ground clearance, fork (h_3+h_{13})	Lowered height h_1	Extended height h_4	Free lift
	mm	mm	mm	mm	mm
Double cylinders Duplex wide view	2000[1]	2090	1540	2540	90
	2400[1]	2490	1740	2940	90
	2700	2790	1890	3240	90
	2900	2990	1990	3440	90
	3000	3090	2040	3540	90
	3300	3390	2190	3840	90
	3500	3590	2290	4040	90
	3800	3890	2440	4340	90
	4000	4090	2540	4540	90
	4200	4290	2640	4740	90
	4500	4590	2790	5040	90
Duplex full-free wide view	2000[1]	2090	1540	2540	1020
	2400[1]	2490	1740	2940	1220
	2700	2790	1890	3240	1370
	3000	3090	2040	3540	1520
	3300	3390	2190	3840	1670
	3500	3590	2290	4040	1770
Triplex full-free wide view	3500[1]	3590	1660	4020	1160
	3800[1]	3890	1760	4320	1260
	4000[1]	4090	1830	4520	1330
	4200	4290	1890	4720	1390
	4500	4590	1990	5020	1490
	4700	4790	2060	5220	1560
	4800	4890	2090	5320	1590
	5000	5090	2160	5520	1660
	5200	5290	2230	5720	1730
	5500	5590	2330	6020	1830
	6000	6090	2500	6520	2000

Note: 1)Optional feature for battery side roll out was necessary, It can make changing the battery easier.

Rated Capacities and Load Centres Graph



1.4t



1.6t

HANGCHA

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Folgen Sie uns auf YouTube

"Hangcha Forklift" App herunterladen

ISO14001
ISO14001:2015

ISO9001
ISO9001:2015

HANGCHA trucks conform to the European Safety Requirements.

X SERIES

RIDER PALLET STACKERS

With capacity of 1,400 to 1,600kg

X SERIES RIDER PALLET STACKERS

Are a new generation of products newly developed by Hangcha for warehousing and logistics applications. Using the advanced permanent magnet brushless drive technology and equipped with a new 48V system, the products have advanced performance, comfortable, safe and reliable operations and low use and maintenance costs, and are ideal tools for loading, unloading and handling palletized goods in warehouses, supermarkets, workshops.

APPEARANCE

The X series rider pallet stacker adopts a professional industrial design of exterior and a series family design. The truck has a smooth vivid profile and a fully ergonomic design, following the latest exterior design trend.

The permanent magnet synchronous drive system has excellent performance and low energy consumption. The 48V power supply system has less heat generated.

HIGH PERFORMANCE

- With the VCU control, the truck can be controlled accurately, stably and more efficiently.
- Regenerative brake and slope anti-slide function are offered by this truck.
- The electric steering feature enables easier and more flexible operation.

With high power drive motor, provides fast travel speed and good gradeability.

10%
Gradeability(1.4t laden)

9.0km/h
Travel speed(laden)

The proportional lifting/lowering speed regulation system enables more stable and accurate operation.

RUGGED ON THE OUTSIDE

Made of high-strength steel plates that are molded by stamping, the truck exterior is robust, durable and high-grade, and meets environmental protection requirements.

COMFORT

- Customer can choose different width of outside fork and length of forks to fit variable pallet.
- The standing driving pedal with shock-absorbing design significantly improves standing driving comfort and reduces long-time driving fatigue.

Newly developed tiller is compact and stylish.

Displayed turtle speed function applied to move slowly and helps to stack goods in narrow spaces.

Optimized designing structure can offer a good visibility and easy entrance of the pallet.

The compact body and big rounded design provide an ideal operation in limited space, and the wedge designed chassis greatly increases the passing ability.

PROTECT YOUR INVESTMENT

RELIABILITY

The battery is reliably fixed and the battery cover is support by soft materials, so that the vibration and noise generated during the operation of the vehicle are reduced.

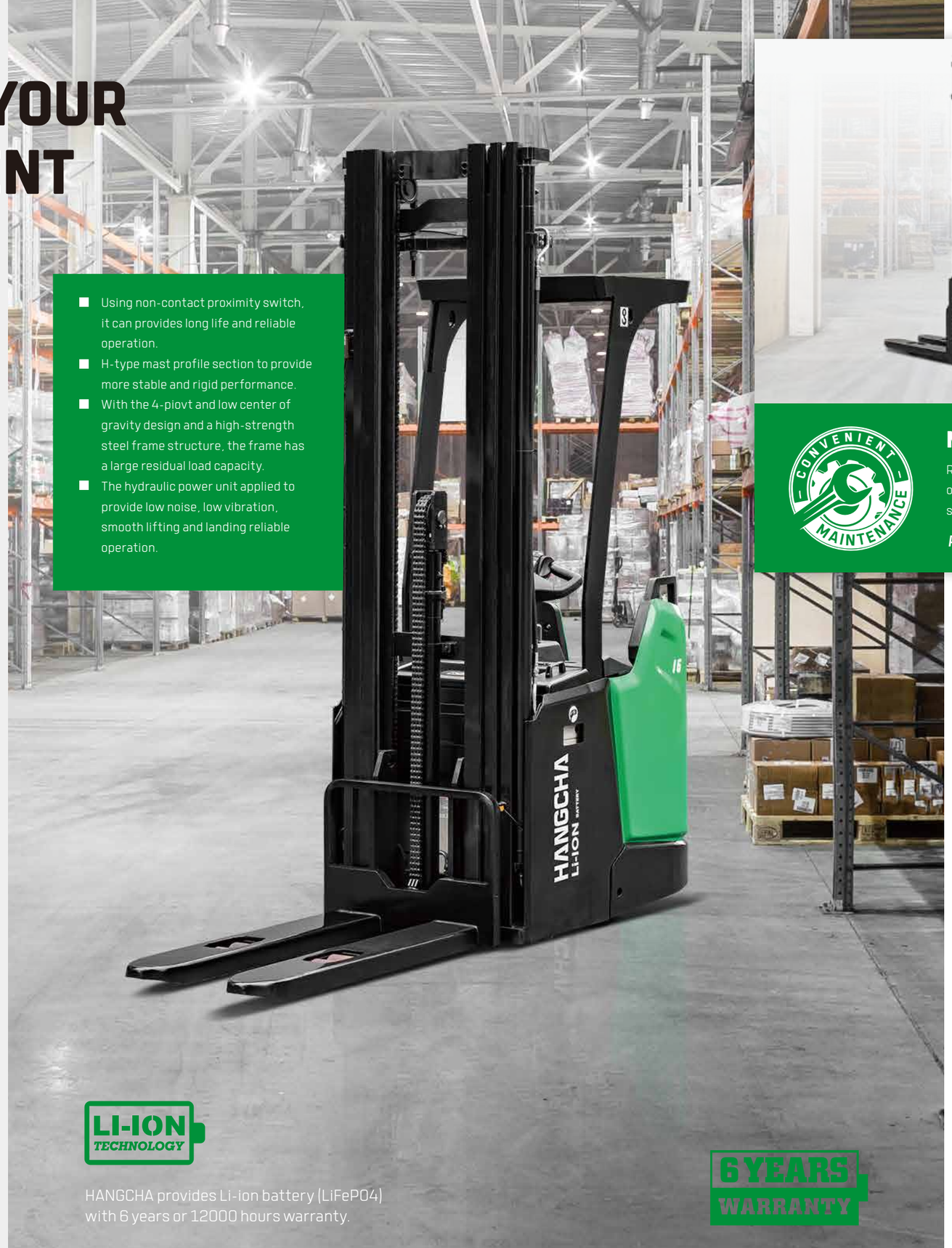
The stamped fork with higher strength and impact resistance, and guided fork prongs, further improve operation efficiency.

Water-proof plugs and connectors applied to provide a reliable protection to electric system.

The power plug is fixed on the truck body to avoid damage from battery installment.

(Option)Lithium battery with the on-board charger(48V,20A)

- Using non-contact proximity switch, it can provides long life and reliable operation.
- H-type mast profile section to provide more stable and rigid performance.
- With the 4-piovt and low center of gravity design and a high-strength steel frame structure, the frame has a large residual load capacity.
- The hydraulic power unit applied to provide low noise, low vibration, smooth lifting and landing reliable operation.



LI-ION TECHNOLOGY

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

6 YEARS WARRANTY

The fault information can be checked directly via the interactive instruments instead of the manual.

CONVENIENT MAINTENANCE

MAINTENANCE

Rear cover can be completely open, operator can see all the components, so the maintenance is very convenient.

All shafts installed lubricated shaft sleeve and oil cup, provide convenient maintenance and long service life.

Permanent magnet synchronous motor need no maintenance.

SAFETY

- Turning speed is automatically reduced when steering.
- **With three braking types:** releasing brake, reversing brake and emergency brake, the driving safety has been ensured.
- The applied slope anti-slip function ensures the safety of the operation.
- The lifting buffering function can ensure the safety of the truck when the fork is lifted to the top.

The truck with assembly overhead guard can protect the driver's safety in case of high-position cargo falling.

The emergency button on the tiller head can effectively avoid the harm to the driver.

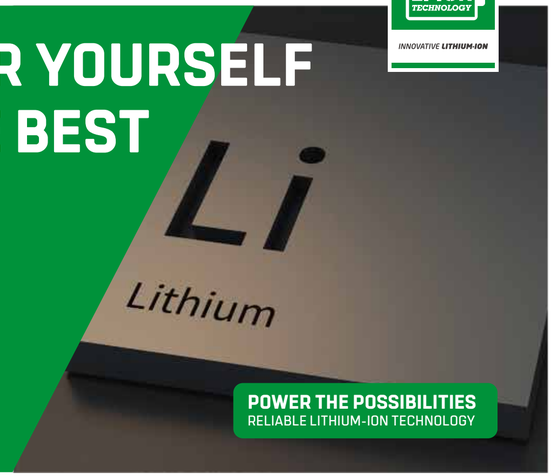
Foot detection sensor - trucks slows down or stops if operator's foot is detected outside of the platform contours (Option).

*Travel speed will be automatically reduced after fork lifting **500mm**. It has an intelligent soft landing that automatically slows down the lowering speed when the fork is less than **100mm** above the ground, effectively protecting cargo safety. (available for duplex mast)*

LITHIUM POWERED

LI-ION TECHNOLOGY
INNOVATIVE LITHIUM-ION

EMPOWER YOURSELF WITH THE BEST



V48 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.

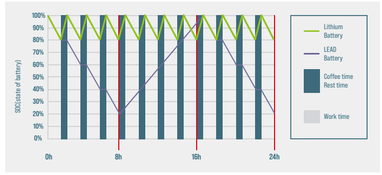
Opportunity charging
Full performance during several shifts thanks to effective interim charging.

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

Technical data

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.	
	1.2	Manufacturer's type designition		CDD14-XT1S-SISU	CDD16-XT1S-SISU
	1.3	Drive: electric (battery type, mains, ...), diesel, petrol, fuel gas		electric	electric
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		standing	standing
	1.5	Rated capacity/rated load	kg	1400	1600
	1.6	Load centre distance	c (mm)	600	600
	1.8	Load distance, centre of drive axle to fork	x (mm)	700	700
	1.9	Wheelbase	y (mm)	1331	1331
Weight	2.1	Service weight	kg	1290	1290
	2.2	Axle loading, laden front/rear	kg	1100/1590	1180/1710
	2.3	Axle loading, unladen front/rear	kg	970/320	970/320
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		PU	PU
	3.2	Tyre size, front		Ø250-80	Ø250-80
	3.3	Tyre size, rear		Ø83-80	Ø83-80
	3.4	Additional wheels (dimensions)		Ø140-55	Ø140-55
	3.5	Wheels, number front/rear (• = driven wheels)		1x+1/4	1x+1/4
	3.6	Tread, front	b10 (mm)	516	516
	3.7	Tread, rear	b11 (mm)	385	385
Dimensions	4.2	Height, mast lowered	h1 (mm)	1890	1890
	4.3	Free lift	h2 (mm)	90	90
	4.4	Lift	h3 (mm)	2700	2700
	4.5	Height, mast extended	h4 (mm)	3240	3240
	4.9	Height drawbar in driving position min./max.	h14 (mm)	1220	1220
	4.15	Height, lowered	h13 (mm)	90	90
	4.19	Overall length	l1 (mm)	2455[1]	2455[1]
	4.20	Length to face of forks	l2 (mm)	1305[1]	1305[1]
	4.21	Overall width	b1/b2 (mm)	800	800
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	60/185/1150	60/185/1150
	4.25	Fork spread	b5 (mm)	570	570
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	25	25
	4.34.1	Aisle width for pallets 1000 • 1200 crossways	Ast (mm)	2655[1][3]	2655[1][3]
	4.34.2	Aisle width for pallets 800 • 1200 lengthways	Ast (mm)	2705[2][3]	2705[2][3]
	4.35	Turning radius	Wa (mm)	2005	2005
Performance	5.1	Travel speed, laden/unladen	km/h	9/11	9/11
	5.2	Lift speed, laden/unladen	m/s	0.195/0.4	0.18/0.4
	5.3	Lowering speed, lade/unladen	m/s	0.45/0.4	0.45/0.4
	5.8	Max. gradeability, laden/unladen	%	10/16	8/16
	5.10	Service brake		Regenerative	Regenerative
Electric-engine	6.1	Drive motor rating S2 60 min	kW	2.2	2.2
	6.2	Lift motor rating at S3 15 %	kW	4.2	4.2
	6.4	Battery voltage/nominal capacity	(V)/(Ah) or kWh	48/80	48/80
	6.5	Battery weight	kg	60	60

Note: 1) According to VDI2198 standard+220mm. 2)According to VDI2198 standard+140mm. 3)Triplex full-free+21mm