



ZHEJIANG HANGCHA IMP. & EXP. CO., LTD.

Factory site: 666 Xiangfu Road,
Hangzhou, Zhejiang, China (311305)

Tel: +86-571-88926735 88926755
Fax: +86-571-88926789 88132890

sales@hcforklift.com
www.hcforklift.com



Follow us on
Facebook



Follow us on
YouTube



Follow us on
WeChat



Download "Hangcha
Forklift" App



HANGCHA trucks conform
to the European Safety
Requirements.

2023 VERSION / COPYRIGHT 2023 / 05

HANGCHA GROUP CO., LTD. reserves the right to make any changes without notice concerning colors, equipment, or specifications detailed in this brochure, or to discontinue individual models. The colors of trucks, delivered may differ slightly from those in brochures.

XH SERIES HIGH-VOLTAGE LITHIUM BATTERY EMPTY CONTAINER HANDLER

with capacity of 9,000kg

LI-ION
TECHNOLOGY

INNOVATIVE LITHIUM-ION

REACH
THE SKY



The World of Hangcha



HANGCHA

XH SERIES HIGH-VOLTAGE LITHIUM BATTERY EMPTY CONTAINER HANDLER

Independently developed by Hangcha on the basis of decades of deep understanding of electric products and internal combustion products, XH series high-voltage counterweight lithium battery empty container handlers are a new series of high-voltage lithium battery empty container handlers that first use a new energy vehicle voltage platform and represent a breakthrough over the traditional design concept. With improved efficiency, power, reliability, etc., XH series forklift models have performance and operating condition completely superseding that of the internal combustion forklifts.

VOLTAGE

579 V

SPEED MODELS

3

100% CHARGE FOR

1 Hour

PROTECTION RATE

IP67

WATER RESISTANCE

IPX4

Appearance

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

THE *DPlus*
FOR YOUR
BUSINESS



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%

Low Voltage Lithium Battery Forklift
Hangcha High Voltage Lithium Electric Forklift



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

90%

Fuel Forklift
Lithium Electric Forklift



4000

CYCLES OF CHARGING



Under normal charging and discharging conditions, the lithium battery of Hangcha products has a capacity retention rate of more than 75% and a life span of up to 10 years after 4000 cycles of charging and discharging.

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:



1h

Hangcha High Voltage Electric Forklift



10h

Electric Forklift

HIGH-VOLTAGE

350.1Kwh

Battery capacity



EFFICIENT AND DURABLE

Advancement

- / A high-torque permanent magnet synchronous motor provides strong power for the vehicle with performance indicators benchmarked against that of internal combustion forklifts.
- / A 579V high-voltage platform with low system loss and a standard chilled water tank for heavy-duty truck to achieve good heat dissipation.
- / 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.
- / 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.

Reliable

- / The novel spreader has a higher reliability, a longer service life, a lower failure rate and a lower maintenance cost.

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.
- / Braking energy and potential energy recovery effectively prolongs operating time.



Safety

- / The cover of the vehicle is designed to be sealed to the water resistance level of IPX4.
- / The electrical system has high-voltage interlocking, insulation monitoring and potential balancing functions to offer vehicle-grade safety.
- / Both the battery and junction box have MSD maintenance switches to enable one-click power-down and safer maintenance.
- / Key structural parts have been verified highly reliable by the market for many years while being used by internal combustion forklifts.



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.



A turning deceleration function effectively reduces risk of tipping over.



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 spreader twist-lock equipped with mechanical and electrical protection devices, lifting interruption control, OPS system, travel speed limiting and other functions ensure safe operations.
- / The LED lighting system ensures the brightness of the lighting within the operating range.
- / A visual reversing radar is provided for the standard configuration and other options such as an tire pressure monitoring, overload protection, etc. can be provided.

Fully-suspended all-round vision cab

- / The large-stroke bodily-movable fully-suspended cab can be repaired and maintained easily, can easily switch to the manual movement mode, and easily move.
- / With the vehicle frame damper connected and the tight sound and heat insulation design, most vibration and noise are shielded.
- / The largely-curved front and rear windows, all-glass left and right doors and large glass ceiling enable a broad view.
- / An inclinable telescopic steering column and fully-suspended adjustable seat with a high backrest and safety belt, with seat sensing and driving position sensing functions.
- / A high-power cooling and heating air conditioner, two ventilation modes - internal and external circulation, sunshades, speedadjustable wipers and defrosting function make driving more comfortable.



SMART AND CONVENIENT

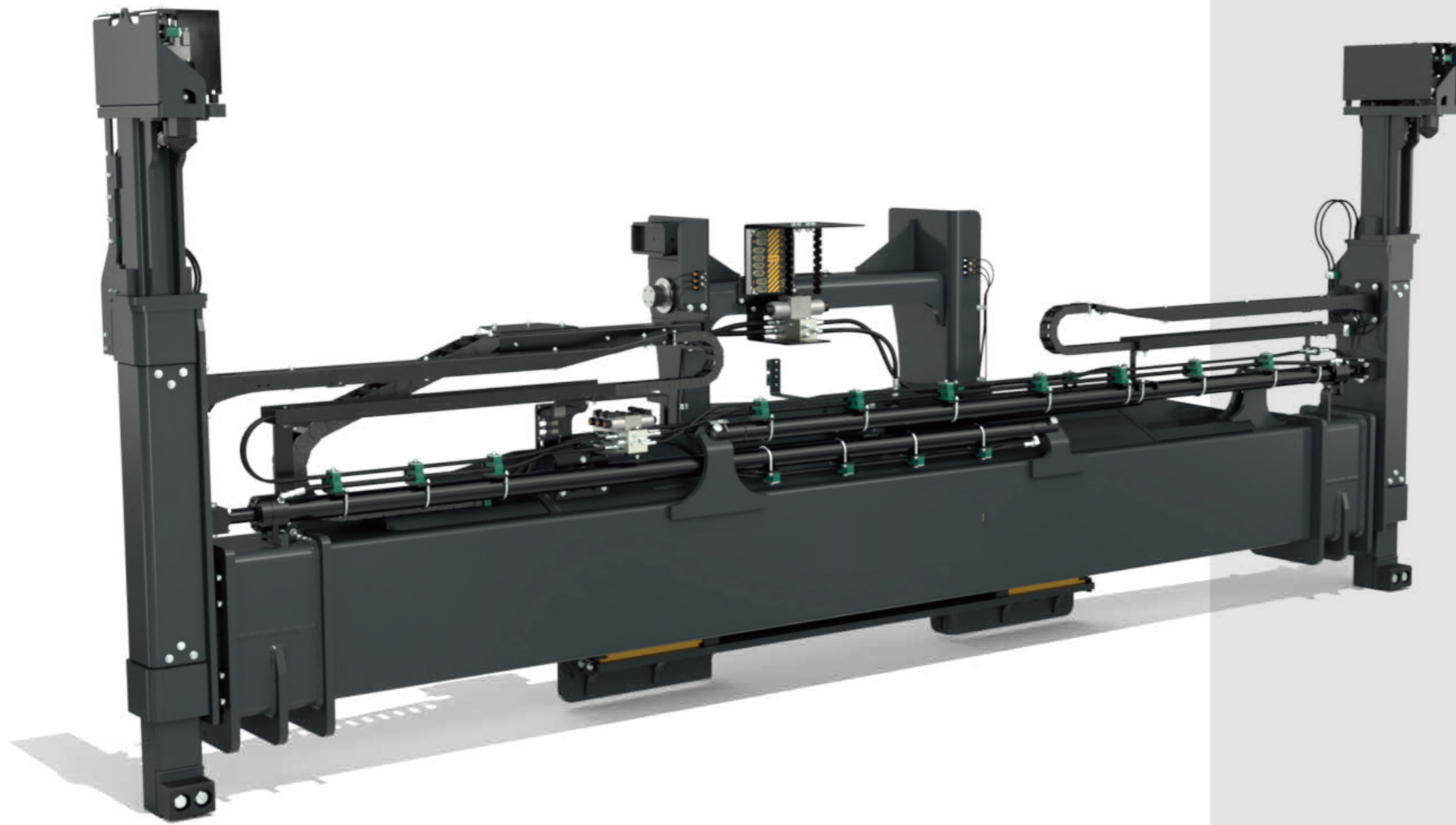
Maintainability

- / 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.

Intelligence

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





TECHNICAL SPECIFICATIONS

Type of lifting system	Two vertical twistlocks
Type of stacking	Normal and block stacking
Spreader weight (TW)	3 600 kgs
Carriage weight (MPS)	1 050 kgs
Lifting capacity (SWL)	9 tonnes
Telescopic positions	20 and 40ft
Telescoping speed, 20-40ft	< 12 sec.*
Telescoping speed, 40-20ft	< 14 sec.*
Sideshift	± 600 optional ± 400 mm
Mechanical pile slope (MPS), vertical floating end-posts	At 20ft position: approx. 200 mm At 40ft position: approx. 200 mm
Hydraulics, operating pressure up to	140 bar
Hydraulics, flow	40-60 L/min
Electric - control voltage	24 VDC
Communication	CAN 2.0B
Colour	Black grey RAL 7021

* Calculated speed at 60 L/min

Single handling container spreader Vertical Twistlocks.



Improved design with built-in cabling and larger bending radius for hydraulic hose between pocket and end-post.



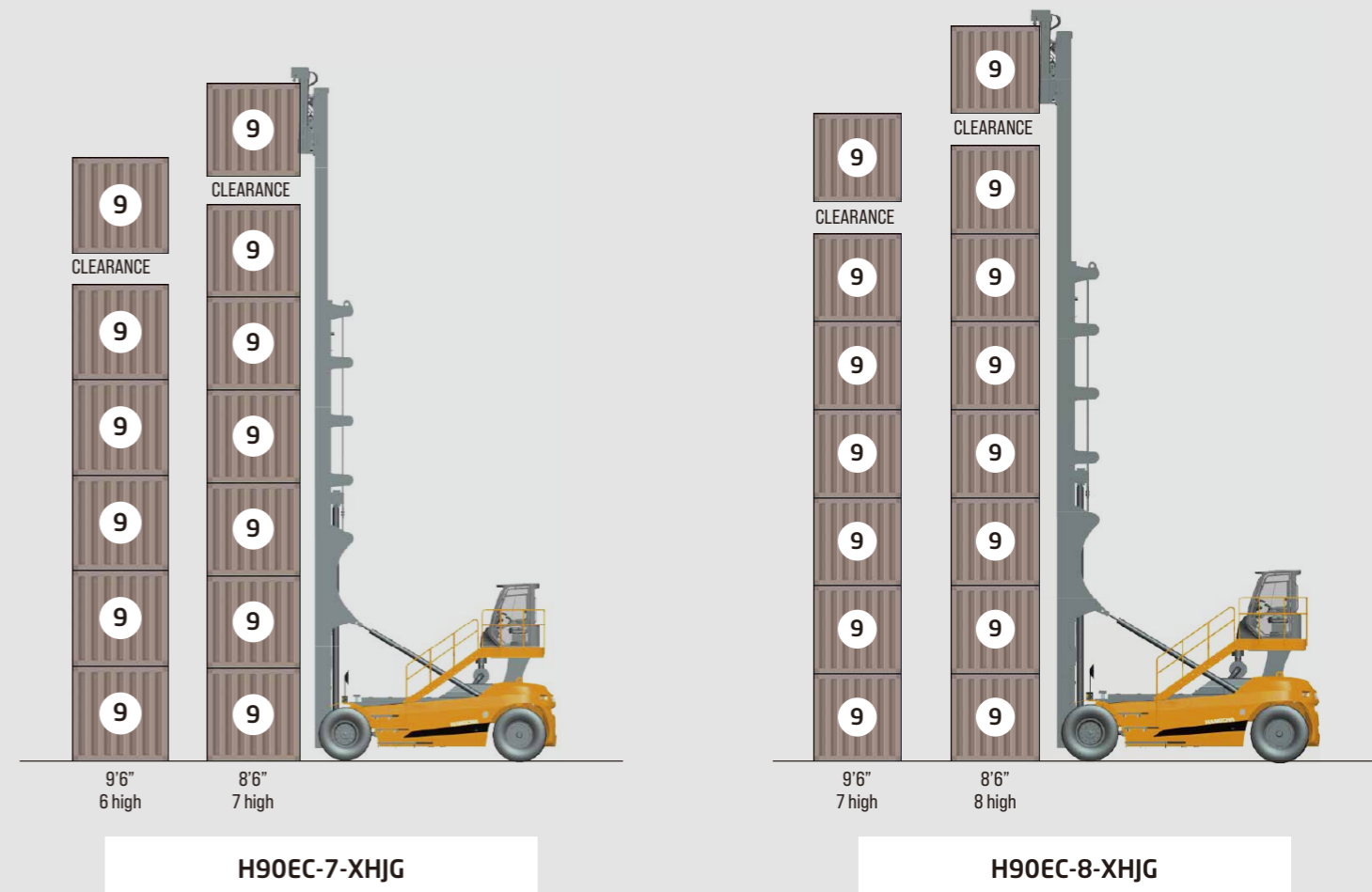
INNOVATION head.

Suitable for:

- / 20' or 40' ISO containers of 8' (2.44 m) width.
- / Approx. 2.45-2.50 m wide "pallet-wide" 20' or 40' containers, with ISO-like 'chamfered' corner castings.
- / With speed limitation for laden/unladen.

Not suitable for:

- / Approx. 2.45 - 2.60 m wide "CPC" containers (Cellular Pallet-wide Containers) with non-ISO corner castings.
- / Approx. 2.45 - 2.50 m wide "pallet-wide" 20' or 40' containers, with ISO-like 'chamfered' corner castings.





Standard Specification

- / Cab
- / Multi-direction adjustable armrest
- / Emergency descending
- / LCD bus instrument
- / Hydraulic oil filter alarm
- / Snail horn
- / Multifunctional color-screen instruments
- / Maintenance-free 24V lead-acid battery
- / Standard seat
- / Fully hydraulic power steering
- / Steering wheel adjusting device
- / Visual reversing radar
- / Accumulator low pressure alarm
- / Alarm light
- / Neutral gear switch
- / Water chilling unit for lithium battery
- / Automatic fire extinguisher for lithium battery
- / Mast LED light
- / Cooling and heating air conditioner
- / Chair sensing system
- / Traction device
- / Neutral indicator
- / Vehicle LED lights
- / Oil-resistant tread tire
- / Standard lithium battery box
- / Emergency shut-off switch
- / VCU controller
- / Electrically-controlled joystick
- / Spreader twist-lock double protection
- / Rearview mirror
- / Pneumatic tire
- / Reversing buzzer
- / MSD maintenance switch
- / Maintenance reminding

Options

- / User specified color
- / Reverse voice buzzer
- / Weighing system
- / Blue light
- / Twist-lock counter
- / Fire extinguisher (2kg/4kg)
- / Speed limit alarm
- / Tire pressure monitoring
- / Solid tire
- / Acoustic and optical alarm light
- / Driving record system
- / Central lubrication system
- / Front view system (optionally with a memory)
- / Vehicle intercom
- / Turning deceleration
- / Cloud intelligent management system
- / Vehicle toolkit



XH Series High-voltage Lithium Battery Empty Container Handler Specification

Distinguishing mark	HANGCHA GROUP CO.,LTD.		
		H90EC-7-XHJG	H90EC-8-XHJG
1.1	Manufacturer	HANGCHA GROUP CO.,LTD.	
1.2	Manufacturer's type designation	H90EC-7-XHJG	H90EC-8-XHJG
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated
1.5	Rated capacity/rated load	Q (kg)	9000
1.6	Stacking height, no. of containers (8'6" / 9'6")		7/6
1.7	Load centre distance	c (mm)	1220
1.8	Load distance, centre of drive axle to fork	x (mm)	1340
1.9	Wheelbase	y (mm)	4550
2.1	Service Weight	kg	41300
2.2	Axle loading, laden front/rear	kg	34400/10800
2.3	Axle loading, unladen front/rear	kg	25500/15800
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		14.00-24-28PR
3.2	Tyre size, front		14.00-24-28PR
3.3	Tyre size, rear		Pneumatic
3.5	Wheels, number front / rear (x = driven wheels)		4x/2
3.6	Tread, front	b10 (mm)	3280
3.7	Tread, rear	b11 (mm)	2300
4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta(^{\circ})$	3/3
4.2	Height, mast lowered	h1 (mm)	10715
4.3	Lift height, min in twist locks	h2 (mm)	2200
4.4	Lift height, max in twist locks	h3 (mm)	18670
4.5	Height, mast extended	h4 (mm)	19100
4.7	Height of overhead cabin	h6 (mm)	4600
4.8	Seat height relating to SIP	h7 (mm)	3500
4.12	Coupling height	h10 (mm)	760
4.19	Overall length	l1 (mm)	6850
4.20	Length to face of forks	l2 (mm)	4120
4.21	Overall width	b1/b2(mm)	4120/2700
4.22	Spreader sideshift	mm	± 600
4.24	Spreader width, retracted, min	b3 (mm)	6100
4.25	Spreader width, extended, max	b5 (mm)	12240
4.31	Ground clearance, laden, below mast	m1 (mm)	290
4.32	Ground clearance, centre of wheelbase	m2 (mm)	330
4.34	Aisle width with(8'6" / 9'6")	Ast (mm)	10200/14000
4.35	Turning radius	Wa (mm)	6000
4.36	Minimum pivoting point distance	b13 (mm)	2085
5.1	Travel speed, laden/unladen	km/h	23/24
5.2	Lift speed, laden/unladen	m/s	0.55/0.62
5.3	Lowering speed, laden/unladen	m/s	0.50/0.55
5.5	Drawbar pull, laden	N	120000
5.7	Gradeability, laden	%	22
5.10	Service brake		Wet disc brake
	Parking brake		spring applied, hydraulic release multi-disc brake
6.1	Drive motor rating S2 60 min	kW	143
6.2	Lift motor rating at S3 15%	kW	89
6.3	Battery acc. to DIN 43531/35/36 A,B,C, no		/
6.4	Battery voltage, nominal capacity K5	V/Ah	579.6/604
6.5	Battery weight	kg	3200
	Battery dimensions	l/b/h(mm)	1356*1220*940
6.6	Energy consumption acc. to VDI cycle	kWh/h	/
	Max. battery weight	kg	3675
	Min. battery weight	kg	3325
10.1	Operating pressure for attachments	bar	150
10.2	Oil volume for attachments	l/min	120
10.3	Hydraulic Tank - capacity (drain & refill)	liter	/
10.7	Sound pressure level at the driver's seat	dB (A)	/
10.8	Towing coupling, type DIN 15170		$\Phi 40$

