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ISO45001  
ISO45001:2018



ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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## X Series Diesel / Gasoline / LPG Counterbalanced Forklift Trucks

with capacities of 5,000 to 10,000kg

*The World of Hangcha*



# X Series

## DIESEL / GASOLINE / LPG COUNTERBALANCED FORKLIFT TRUCKS

The X series is the new series of internal combustion counterbalance forklift truck developed by Hangcha independently, adopting the world advanced technologies based on the original products. Through the comprehensive upgrading of appearance molding, energy conservation, environmental protection, comfort, security and reliability, it will become the world-class forklift truck which can meet your overall demands.

### Strong appearance and visual impact

The appearance of full vehicle is developed under the cooperation with professional industrial design company by adopting the appearance design methods of brand-new concept. The streamlined surface modeling design brings smooth lines, elegant appearance, vigorous and steady surface as well as the outstanding inherence, possessing the powerful visual impact.

The appearance of full vehicle is exquisite and concise, which adopting the newly designed parts with opening mould at large area, the appearance of full vehicle will be more humanized.

### Innovation design



The new designed mast increase forward visibility 15%



Fuel consumption ↓ 10%  
(Common rail engine)



Grade-speed ability ↑ 15%



Legroom ↑ 15%



Exhaust emission ↓ 35%  
(Common rail engine)



Better cold starting performance  
(Common rail engine)



High pressure common rail electronic-controlled engine provide lower failure rate  
(Common rail engine)



Aluminous plate-fin radiator provides stronger structure



Water temp ↓ 10 C, oil temp ↓ 10%





## Energy conservation and environmental protection



The whole truck adopts LED lights as shiner and new-type panoramic retroreflector to ensure energy conservation and power saving as well as greatly improve the performance and service life of luminaires at the same time.

The full vehicles all adopt the environmental protection material to reduce environmental hazards.



## Fully improved reliability and security



The radiator adopts aluminous plate-fin radiator with better performance and higher structural strength. Impendent oil radiator, optimized oil and water heat dissipation channel and double ventilation holes on counterweight can greatly improve cooling efficiency and reliability of overloaded operation and ensure reliable operation of the engine.

Overhead guard adopts special-shaped steel tube, which can reinforce the strength and improve sealing of the cab.

5.0-7.0t roller bearing on the steering axle king pin adopts large size tapered roller bearing (TRB), larger steering cylinder and bumper block assemblies on the top, which can prolong the service life of bearing and highly improve the reliability of steering axle.

Along with adopting a low height for the step, it has also been made wider, facilitating frequency entry and exit.

## Easy maintenance



Newly-developed LCD instrument has more comprehensive functions and more stable performance and entirely displays the full vehicle running state, trouble diagnosis and other important information, which can make the operator more intuitively and conveniently have a better knowledge of vehicle state and make the maintenance conveniently.

The enlarged opening angle of hood and increase of left and right hood side plates can provide you with convenient and rapid maintenance mode.

Adoption of new generation integrated electric box makes maintenance and repair convenient, layout becomes more reasonable and with better water-proof performance.

Integral locking pin structure on the baseboard can be opened without tool, which is convenient for daily repair and maintenance.

# Comfort

Reduce the caster angle of instrument stand and adopt the integral hood to greatly increase the space underfoot;

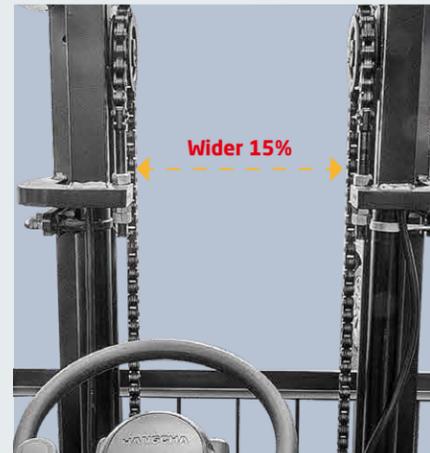
The orthodrome of overhead guard fore leg will expand the driving space;



Optimized air intake and exhaust system of full vehicle, high-capacity exhaust silencer and high-effect intake silencer will reduce the noise of full vehicle and reduce the vibration.



The design of steering wheel of small diameter and electro-hydraulic reversing as well as the car-type double-handle combination switch will greatly improve the driving comfort.



Adopt the new-type of box iron. Increase the inside width of inner mast and the spacing between lifting cylinders. The lowering of instruments in the driving cab will greatly increase the forward visibility; The rear visibility will also be greatly improved through the optimization design of counterweight.



## Intelligent management system (option)

Reserved plug of extending function of Intelligent module is on the wire bundles that makes truck management more convenient and rapid.

## Standard Specification

- / Drum brake
- / Working light
- / Hydraulic oil filter
- / Electric Flameout
- / Seat with belt
- / Skidproof pedal
- / Air filter
- / Hydraulic oil dipstick
- / Traction device
- / Mast speed limiting valve
- / Full hydraulic power steering
- / Wide view duplex mast
- / Standard forks
- / Standard overhead guard
- / Rear combination LED light
- / Vacuum assisted brake(5-7t)
- / panoramic rearview mirror
- / Dynamic braking(8.5-10t)
- / Adjustable steering column
- / Pre-heating indicator
- / Engine fuel pressure warning
- / Neutral switch
- / Engine hood spring
- / Dipstick
- / Cover of tilt cylinder
- / Standard load backrest(5-7t)
- / Horn
- / Fuel gauge
- / LCD display
- / High-positioned intake system
- / High-positioned exhaust system
- / Cable parking brake
- / Tilt cylinder self-locking valve
- / Accumulator pressure alarm lamp(8.5-10t)
- / Timer
- / Port type gearbox
- / Charging indicator
- / Fork positioner(8.5-10t)
- / Water temperature gauge
- / Air filter alarm lamp
- / Reversing buzzer
- / Hand grip
- / Integrated controller
- / Oil-water separator
- / Rubber pedal
- / Multiplex hydraulic valve

## Optional Mast

- / Duplex wide view full free mast
- / Trilex wide view full free mast
- / Special duplex wide view mast
- / Wider fork carriage
- / Special forks

## Options

- / Imported brakes (5-7t)
- / Cabin
- / Intelligent management system
- / Customer painting
- / Cabin heater
- / LED rear working light
- / Hood lock
- / Solid tyre
- / Middle-positioned exhaust system
- / Sparkle arrester
- / Suspension seat
- / Automatic shift system
- / Fuel tank lock
- / Extinguisher
- / Right rear armrest with horn button
- / Height of overhead guard
- / Dual air filter
- / Toolbox
- / Wet brake(8.5-10t)
- / Emergency switch
- / Fan protector
- / Over-speed alarm
- / Warning light
- / OPS system
- / Waterproof cover on the guard

## Optional Attachments

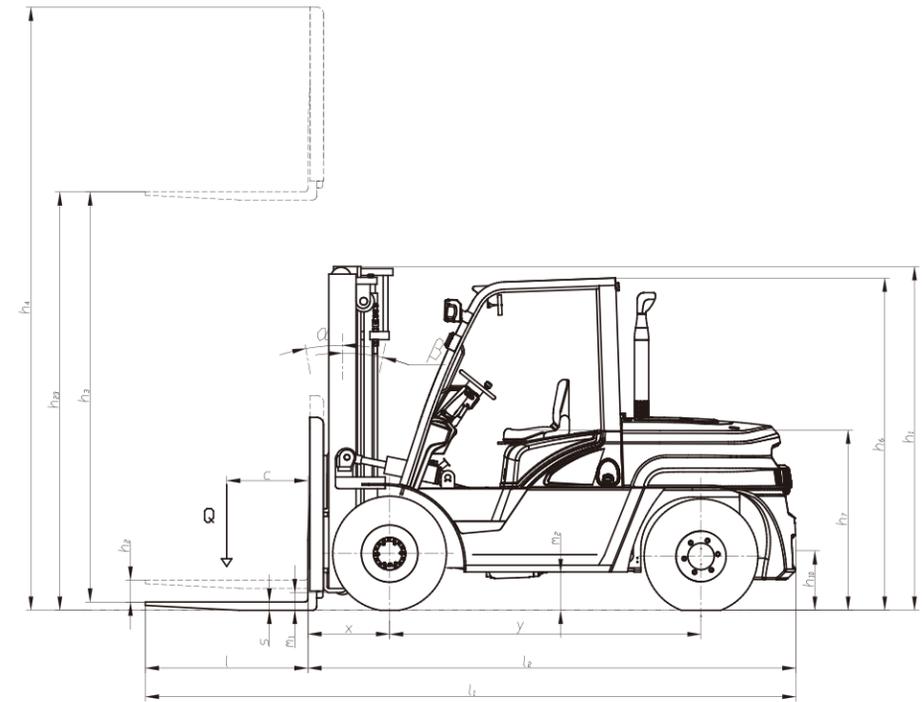
- / Paper roll clamp
- / Fork positioner
- / Load stabilizer
- / Side shifting fork positioner
- / Bale clamp
- / Steel pipes Hinge Fork
- / Dumping clamp
- / Crane arm
- / String pole
- / Sideshifter
- / Rotating forks
- / Fork extensioner
- / Tyre handler
- / Block clamp
- / Mechanical drum clamp(5-6t)
- / Bucket





## 5-7t X series mast:(pneumatic)

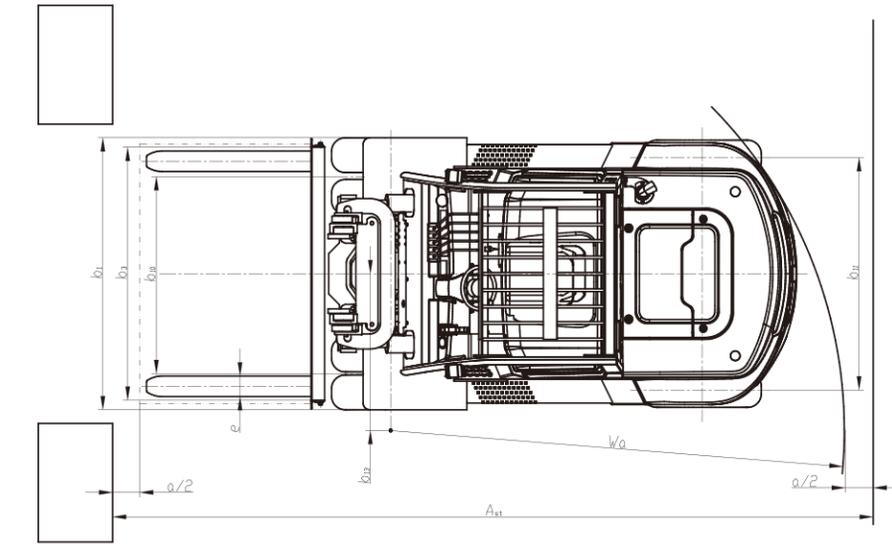
Type	Model	Max. fork height	Overall height				Free lift		Load distance, centre of drive axle to fork	Tilt range FWD/BWD	Capacity		
			Lowered	Extended		Without backrest	With backrest	Load capacity at 600mm					
				Without backrest	With backrest			Dual tire					
mm	mm	mm	mm	mm	mm	mm	mm	(°)	5t kg	6t kg	7t kg		
Wide view mast	XR50/70M250	2500	2250	3505/3667	3907	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M270	2700	2350	3705/3867	4107	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M300	3000	2500	4005/4167	4407	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M330	3300	2650	4305/4467	4707	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M360	3600	2800	4605/4767	5007	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M400	4000	3000	5505/5167	5407	160	160	600/605	10/12	5000	6000	7000	
	XR50/70M430	4300	3200	5305/5467	5707	160	160	600/605	6/6	5000	6000	7000	
	XR50/70M450	4500	3300	5505/5667	5907	160	160	600/605	6/6	5000	6000	7000	
	XR50/70M480	4800	3450	5805/5967	6207	160	160	600/605	6/6	5000	6000	7000	
	XR50/70M500	5000	3550	6005/6167	6407	160	160	600/605	6/6	5000	6000	7000	
	XR50/70M550	5500	3850	6550/6667	6907	160	160	600/605	6/6	4750	5700	6600	
	XR50/70M600	6000	4100	7050/7167	7407	160	160	600/605	6/6	4400	5400	6400	
Wide view mast Full free Duplex mast	XR50/70U250	2500	2185	3455/3615	3637	1230/1070	1048	631/636	10/12	5000	6000	7000	
	XR50/70U270	2700	2300	3655/3815	3837	1345/1185	1163	631/636	10/12	5000	6000	7000	
	XR50/70U300	3000	2450	3955/4115	4137	1495/1335	1313	631/636	10/12	5000	6000	7000	
	XR50/70U330	3300	2600	4255/4415	4437	1645/1485	1463	631/636	10/12	5000	6000	7000	
	XR50/70U360	3600	2750	4555/4715	4737	1795/1635	1613	631/636	10/12	5000	6000	7000	
	XR50/70U400	4000	2950	4955/5115	5137	1995/1835	1813	631/636	10/12	5000	6000	7000	
Wide view mast Full free Triplex mast	XR50/70N450	4500	2725	4575	5907	1500	1328	667/672	6/6	4500	5500	6400	
	XR50/70N480	4800	2825	6035	6207	1600	1428	667/672	6/6	4500	5500	6300	
	XR50/70N500	5000	2875	6213	6407	1672	1478	667/672	6/6	4500	5500	6300	
	XR50/70N550	5500	3075	6785	6907	1800	1678	667/672	6/6	4200	5200	6100	
	XR50/70N600	6000	3225	7235	7407	2000	1828	667/672	6/6	4000	5000	5500	
	XR50/70N700	7000	3675	8385	8407	2300	2278	667/672	6/6	3000	3300	3800	



## 8.5-10t X series mast:(pneumatic)

Type	Model	Max. fork height	Overall height				Free lift		Load distance, centre of drive axle to fork	Tilt range FWD/BWD	Capacity		
			Lowered	Extended		Without backrest	With backrest	Load capacity at 600mm					
				Without backrest	With backrest			Dual tire					
mm	mm	mm	mm	mm	mm	mm	mm	mm	(°)	8.5t kg	10t kg		
Wide view mast	XR85/100M250	2500	2450/2600	3715/4050	/	200	/	710/725	10/12	8500	10000		
	XR85/100M270	2700	2550/2700	3915/4255	/	200	/	710/725	10/12	8500	10000		
	XR85/100M300	3000	2700/2850	4215/4555	/	200	/	710/725	10/12	8500	10000		
	XR85/100M330	3300	2850/3000	4515/4855	/	200	/	710/725	10/12	8500	10000		
	XR85/100M350	3500	2950/3100	4715/5055	/	200	/	710/725	10/12	8500	10000		
	XR85/100M360	3600	3000/3150	4815/5155	/	200	/	710/725	10/12	8500	10000		
	XR85/100M400	4000	3200/3350	5215/5555	/	200	/	710/725	10/12	8500	10000		
	XR85/100M430	4300	3400/3550	5515/5855	/	200	/	710/725	6/6	8500	10000		
	XR85/100M450	4500	3500/3650	5715/6055	/	200	/	710/725	6/6	8500	10000		
	XR85/100M480	4800	3650/3800	6015/6355	/	200	/	710/725	6/6	8500	10000		
	XR85/100M500	5000	3750/3900	6215/6555	/	200	/	710/725	6/6	8500	10000		
	XR85/100M550	5500	4050/4200	6740/7055	/	200	/	710/725	6/6	7900	9000		
XR85/100M600	6000	4300/4450	7240/7555	/	200	/	710/725	6/6	7500	8000			
XR85/100M650	6500	4600/4750	7790/8055	/	200	/	710/725	6/6	6300	6700			
Wide view mast Full free Duplex mast	XR85/100U230	2300	2350/2500	3505/3845	/	1145/955	/	719/744	10/12	8500	10000		
	XR85/100U250	2500	2450/2600	3705/4045	/	1245/1055	/	719/744	10/12	8500	10000		
	XR85/100U270	2700	2550/2700	3905/4245	/	1345/1155	/	719/744	10/12	8500	10000		
	XR85/100U300	3000	2700/2850	4205/4545	/	1495/1305	/	719/744	10/12	8500	10000		
	XR85/100U330	3300	2850/3000	4505/4845	/	1645/1455	/	719/744	10/12	8500	10000		
	XR85/100U360	3600	3000/3150	4805/5145	/	1795/1605	/	719/744	10/12	8500	10000		
Wide view mast Full free Triplex mast	XR85/100U400	4000	3200/3350	5205/5545	/	1995/1805	/	719/744	10/12	8500	10000		
	XR85/100N450	4500	2750/2850	5775/6055	/	1485/1305	/	759/794	6/6	7500	8500		
	XR85/100N480	4800	2850/2950	6075/6355	/	1585/1405	/	759/794	6/6	7500	8500		
	XR85/100N500	5000	2950/3050	6360/6655	/	1680/1505	/	759/794	6/6	7500	8500		
	XR85/100N550	5500	3100/3200	6810/7055	/	1800/1655	/	759/794	6/6	7000	7700		
	XR85/100N600	6000	3250/3350	7275/7555	/	1985/1805	/	759/794	6/6	6400	7000		
	XR85/100N650	6500	3530/3630	7840/8055	/	2200/2085	/	759/794	6/6	5800	6200		
	XR85/100N700	7000	3700/3800	8310/8555	/	2400/2255	/	759/794	6/6	4800	5200		

With sideshifter minus 300kg, with integral sideshifter minus 200kg.



## Optional Engine / Transmission

Engine	Engine manufacturer/type		ISUZU/6BG1QP	CUMMINS/QSB4.5	CUMMINS/QSF3.8	YUCHAI/YC4A115-T300	PSI-4.3L	YUCHAI/YCA05130-T480	CHAOCHAI/CY6BG541
	Manufacturer's type designation		W14	W28	W70	G77	W57	N1	N2
Transmission	Drive		Diesel	Diesel	Diesel	Diesel	Gasoline/LPG	Diesel	Diesel
	Emission STD		/	StagellA/Tier 3	StagellA	/	/	/	/
	Engine power	kW/r/min	85.3/2200	82/2200	86/2200	85/2200	76/2300, 77/2300	96/2200	96/2200
	Rated torque	Nm/r/min	410.9/1500	488/1500	470/1100-1700	450/1400-1700	318/2300, 332.85/1400	530/1300-1600	550/1200-1600
	Number of cylinders/displacement	ml	6/6494	4/4460	4/3760	4/4836	6/4294	4/4837	6/5785
Transmission	Powershift	CHINA	✓	✓	✓	✓	✓	✓	✓
		OKAMURA	B	✓	✓	✓	✗	✗	✗
Rated capacity/rated load		Q (kg)	5000-10000	5000-10000	5000-10000	5000-10000	5000-7000	8500-10000	8500-10000

