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ISO14001:2015



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 1,500 to 3,800kg

*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 friendly, 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 truck 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 truck is small, 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%



Noise ↓ 3dB



Legroom ↑ 30%



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



Floating structure decrease the vibration by 10%



Exhaust emission ↓ 35%  
(Common rail engine)



Grade-speed ability ↑ 10%  
(Common rail engine)



Aluminous plate-fin radiator provides stronger structure



Prolong the service life of steering axle 20%



Fuel consumption ↓ 10%  
(Common rail engine)



Better cold starting performance  
(Common rail engine)



Water temp ↓ 10°C, oil temp ↓ 10%

## Energy conservation and Environmental friendly



The high pressure common rail electronic-controlled engine which adopts high pressure multiple injections technology to ensure the strong power take-off, lower emission and better cold starting performance; saving the 10% of energy consumption.

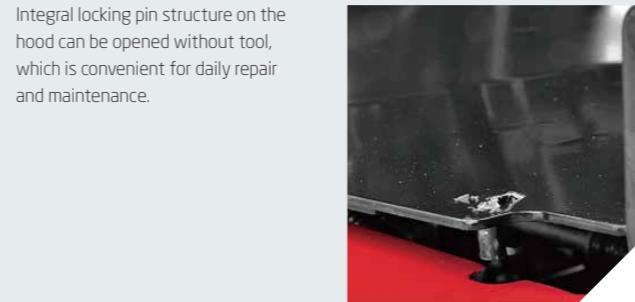


The whole truck adopts LED lights as shiner and new-type panoramic retroreflector to ensure energy conservation and power saving as well as greatly improve the performance and service life of luminaires at the same time.

The truck all adopt the environmental friendly material to reduce environmental hazards.

## Maintenance

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



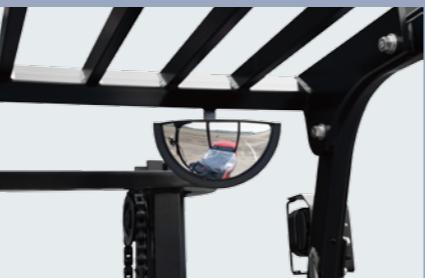
Adoption of new generation integrated electric box makes maintenance and repair convenient, layout becomes more reasonable and with better water-proof performance.

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



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

## Fully improved reliability And security



1. The radiator adopts aluminous plate-fin radiator with better performance and higher structural strength independent 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.

2. 2.0~3.8t 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.

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

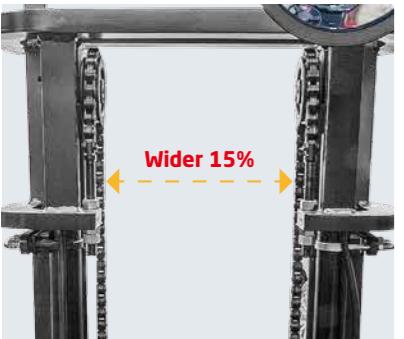
4. Optimized hydraulic breather structure and integrated with return oil filter can prolong the service life of hydraulic pressure system.



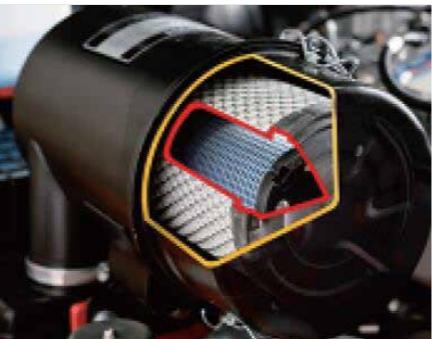
## Comfort

Option of the most advanced full floating structure in the world can minimize the vibration of full truck and support more superior buffer, micro-motion and starting functions at the same time. With several imported engines, they can constitute more perfect engine-transmission system.

*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;*



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 cabin will greatly increase the forward visibility; The rear visibility will also be greatly improved through the optimization design of counterweight.



Optimized air intake and exhaust system, high-capacity exhaust silencer and high-effect intake muffler will reduce the noise of full truck by 3dB and reduce the vibration by 20%.



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.



## Intelligentized 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

- / Cover of tilt cylinder
- / Traction device
- / LED working light
- / Hydraulic oil filter
- / Electric Flameout
- / Seat with belt
- / Skidproof pedal
- / Air filter
- / Hydraulic oil dipstick
- / Mast speed limiting valve
- / Full hydraulic power steering
- / Wide view duplex mast
- / Standard forks
- / Waterproof cover on the guard
- / Standard overhead guard
- / Rear combination LED light
- / Panoramic rearview mirror
- / Filf folder
- / Adjustable steering column
- / Pre-heating indicator
- / Engine fuel pressure warning
- / Neutral switch
- / Engine hood spring
- / Dipstick
- / Pneumatic tyres
- / Standard load backrest
- / Horn
- / Fuel gauge
- / LCD display
- / Cable parking brake
- / Tilt cylinder self-locking valve
- / Fork carriage mounting class II(III)
- / Timer
- / Load safety valve
- / Charging indicator
- / Water temperature gauge
- / Toolbox
- / Reversing buzzer
- / Return oil filter
- / Hand grip
- / Integrated controller
- / Oil-water separator
- / Engine fault warning
- / Rubber pedal
- / 2nd hydraulic function
- / Transmission oil temperature warning
- / Dynamic load sensing system (for desel engine)

## Options

- / Dual driving wheel
- / Cabin
- / High-positioned exhaust system
- / Customer painting
- / Cabin heater
- / LED rear working light
- / Hood lock
- / Double heat insulating pad and leather cover
- / Net cover of radiator
- / Solid tyre
- / Non-mark tyre (white/green)
- / Middle-positioned exhaust system
- / Sparkle arrester
- / Suspension seat
- / Purified exhaust system
- / Fuel tank lock
- / Speed meter
- / Auxiliary hydraulic valve
- / Extinguisher
- / Reversing assist grip with horn button
- / Counter weight net
- / Height of overhead guard
- / Dual air filter
- / Milometer
- / Speed limiter (Electronic-Controlled engine)
- / Emergency switch
- / Fan protector
- / Over-speed alarm
- / Warning light
- / OPS system

## Optional Attachments

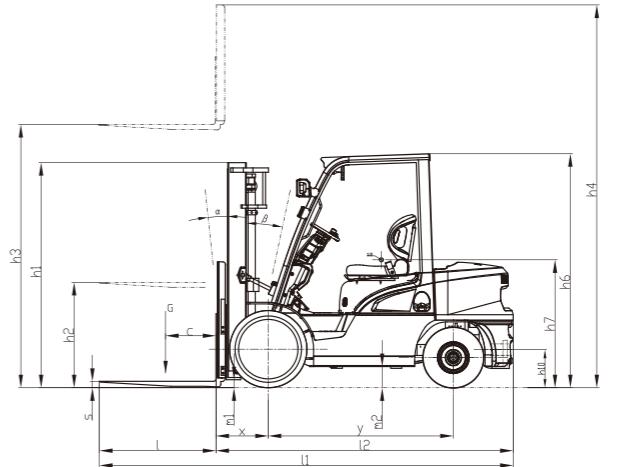
- / Paper roll clamp
- / Rotating bale clamp
- / Load stabilizer
- / Multi-drum clamp
- / Bale clamp
- / Drum clamp
- / Dumping clamp
- / Crane arm
- / String pole
- / Weigher system
- / Sideshifter
- / Rotating forks
- / Fork extensiner
- / Load release device
- / Carton clamp
- / Push-pull device
- / Bucket
- / Hook
- / Lengthened fork

## Optional Mast

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

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

HANGCHA GROUP CO.,LTD.								
1.1	Manufacturer							
1.2	Manufacturer's type designation	CPCD15-XRw32F	CPCD18-XRw32F	CPCD20-XRw56F	CPCD25-XRw56F	CPCD30-XRw56F	CPCD35-XRw56F	CPCD38-XRw56F
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated	Seated	Seated	Seated
1.5	Rated capacity/rated load	Q (kg)	1500	1750	2000	2500	3000	3500
1.6	Load centre distance	c (mm)	500	500	500	500	500	500
1.8	Load distance, centre of drive axle to fork	x (mm)	405	410	460	460	475	480
1.9	Wheelbase	y (mm)	1475	1475	1650	1650	1700	1700
2.1	Service Weight	kg	2720	2880	3450	3850	4380	4750
2.2	Axle loading, laden front/rear	kg	3720/500	4110/520	4750/700	5540/810	6450/930	7200/1050
2.3	Axle loading, unladen front/rear	kg	1300/1420	1290/1590	1600/1850	1560/2290	1700/2680	1700/3050
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
3.2	Tyre size, front		6.5-10-10PR	6.5-10-10PR	7.00-12-12PR	7.00-12-12PR	28.9-15-14PR	28.9-15-14PR
3.3	Tyre size, rear		5.00-8-10PR	5.00-8-10PR	6.00-9-10PR	6.00-9-10PR	6.50-10-10PR	6.50-10-10PR
3.5	Wheels, number front / rear (x = driven wheels)		2×2	2×2	2×2	2×2	2×2	2×2
3.6	Tread, front	b10 (mm)	900	900	965	965	1005	1005
3.7	Tread, rear	b11 (mm)	920	920	973	973	975	975
4.1	Tilt of mast/fork carriage forward/backward	a/β(°)	6/12	6/12	6/12	6/12	6/12	6/12
4.2	Height, mast lowered	h1 (mm)	1995	1995	1999	1999	2054	2169
4.3	Free lift	h2 (mm)	155	155	160	160	165	170
4.4	Lift	h3 (mm)	3000	3000	3000	3000	3000	3000
4.5	Height, mast extended	h4 (mm)	3955	3955	4045	4045	4140	4140
4.7	Height of overhead guard (cabin)	h6 (mm)	2120(2200)	2120(2200)	2120(2200)	2120(2200)	2150(2230)	2150(2230)
4.8	Seat height relating to SIP	h7 (mm)	1145	1145	1145	1145	1175	1175
4.12	Coupling height	h10 (mm)	310	310	320	320	350	350
4.19	Overall length	l1 (mm)	3205	3240	3615	3680	3770	3850
4.20	Length to face of forks	l2 (mm)	2285	2320	2545	2610	2700	2810
4.21	Overall width	b1/b2(mm)	1090/1485	1090/1485	1155/1595	1155/1595	1225/1725	1225/1725
4.22	Fork dimensions	s/e/l (mm)	35×100×920	35×100×920	40×122×1070	40×122×1070	45×122×1070	50×122×1070
4.23	Fork carriage DIN 15 173 ... ISO 2328, class/type A,B		Class A	Class A	Class A	Class A	Class A	Class A
4.24	Fork-carriage width	b3 (mm)	1000	1000	1038	1038	1100	1100
4.25	Distance between fork-arms	bs (mm)	226-970	226-970	252-1020	252-1020	272-1082	272-1082
4.31	Ground clearance, laden, below mast	m1 (mm)	115	115	105	105	130	130
4.32	Ground clearance, centre of wheelbase	m2 (mm)	145	145	150	150	170	170
4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	3640	3670	3930	3990	4075	4120
4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	3840	3870	4130	4190	4275	4320
4.35	Turning radius	Wa (mm)	2035	2060	2270	2330	2400	2480
4.36	Minimum pivoting point distance	b13 (mm)	600	600	780	780	810	810
5.1	Travel speed, laden/unladen	km/h	18/19	18/19	16.5/17.5	16.5/17.5	17.5/18.6	17.5/18.6
5.2	Lift speed, laden/unladen	m/s	0.58/0.62	0.58/0.62	0.62/0.62	0.62/0.62	0.49/0.53	0.43/0.48
5.3	Lowering speed, laden/unladen	m/s	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.35/0.40
5.5	Drawbar pull, laden/unladen	N	14600/10500	14600/10500	19800/12500	19800/12500	20800/14500	20800/14000
5.7	Gradeability, laden/unladen	%	20/20	20/20	20/20	20/20	18/20	15/20
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
7.1	Engine manufacturer/type		YANMAR/4TNE92	YANMAR/4TNE92	YANMAR/4TNV94L-BXPHZ	YANMAR/4TNV94L-BXPHZ	YANMAR/4TNV94L-BXPHZ	YANMAR/4TNV94L-BXPHZ
7.2	Engine power	kW	31.2	31.2	34.6	34.6	34.6	34.6
7.3	Rated speed	r/min	2450	2450	2400	2400	2400	2400
7.4	Number of cylinders/displacement	(-) / (cm³)	4/2659	4/2659	4/3054	4/3054	4/3054	4/3054
7.9	Vehicle electrical system voltage	V	12	12	12	12	12	12
7.10	Battery voltage/nominal capacity	V/Ah	12/90	12/90	12/90	12/90	12/90	12/90
	Rated torque	Nm/r/min	136/1600	136/1600	1915 ~ 2085/1500	1915 ~ 2085/1500	1915 ~ 2085/1500	1915 ~ 2085/1500
	Transmissions Manufacturer	F (CHINA)	F (CHINA)	F (CHINA)	F (CHINA)	F (CHINA)	F (CHINA)	F (CHINA)
	Transmissions Type		Powershift	Powershift	Powershift	Powershift	Powershift	Powershift
	Stage FWD/RVS		1/1	1/1	1/1	1/1	1/1	1/1
10.1	Operating pressure for attachments	bar	145	145	175	175	175	175
10.2	Oil volume for attachments	l/min	40	40	60	60	60	60
10.3	Hydraulic Tank - capacity (drain & refill)	liter	50	50	65	65	65	65
10.4	Fuel tank capacity	liter	50	50	65	65	65	65
10.7	Sound pressure level at the driver's seat	dB (A)	85	85	85	85	85	85



### 1.5-1.8t X series mast:(Pneumatic)

Type	Model	Max. fork height	Overall height		Free lift		Front Overhang	Tilt range	Capacity					
			Extended		Without backrest				Load capacity at 500mm					
			Lowered	Without backrest	With backrest	Without backrest			1.5t	1.75t	1.5t	1.75t		
mm	mm	mm	mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg		
wide view mast	XR15/18M200	2000	1495	2658	2955	155	155	405	410	6/6	1500	1750	1500	1750
wide view mast	XR15/18M250	2500	1745	3158	3455	155	155	405	410	6/12	1500	1750	1500	1750
wide view mast	XR15/18M270	2700	1845	3358	3655	155	155	405	410	6/12	1500	1750	1500	1750
wide view mast	XR15/18M300	3000	1995	3658	3955	155	155	405	410	6/12	1500	1750	1500	1750
wide view mast	XR15/18M330	3300	2145	3958	4255	155	155	405	410	6/12	1500	1750	1500	1750
wide view mast	XR15/18M360	3600	2345	4258	4555	155	155	405	410	6/12	1500	1750	1500	1750
wide view mast	XR15/18M400	4000	2598	4658	4955	155	155	405	410	6/12	1400	1650	1500	1750
wide view mast	XR15/18M430	4300	2745	4958	5255	155	155	405	410	6/6	1300	1550	1400	1650
wide view mast	XR15/18M450	4500	2845	5158	5455	155	155	405	410	6/6	1250	1450	1350	1550
wide view mast	XR15/18M480	4800	2995	5458	5755	155	155	405	410	6/6	1100	1250	1200	1350
wide view mast	XR15/18M500	5000	3095	5658	5955	155	155	405	410	6/6	1050	1150	1150	1250
wide view mast	XR15/18U250	2500	1760	3445	3184	1076	815	428	433	6/12	1500	1750	1500	1750
wide view mast	XR15/18U270	2700	1860	3645	3384	1176	915	428	433	6/12	1500	1750	1500	1750
wide view mast	XR15/18U300	3000	2010	3945	3684	1326	1065	428	433	6/12	1500	1750	1500	1750
wide view mast	XR15/18U330	3300	2160	4245	3984	1476	1215	428	433	6/12	1500	1750	1500	1750
wide view mast	XR15/18U360	3600	2310	4545	4284	1626	1365	428	433	6/12	1500	1750	1500	1750
wide view mast	XR15/18N400	4000	2560	4945	4684	1876	1615	428	433	6/12	1400	1650	1500	1750
wide view mast	XR15/18N430	4300	2600	4994	5255	1376	1115	445	450	6/6	1250	1450	1350	1550
wide view mast	XR15/18N450	4500	2110	5194	5455	1426	1165	445	450	6/6	1200	1350	1300	1450
wide view mast	XR15/18N470	4700	2210	5394	5655	1526	1265	445	450	6/6	1100	1250	1200	1350
wide view mast	XR15/18N480	4800	2260	5494	5755	1576	1315	445	450	6/6	1100	1250	1200	1350
wide view mast	XR15/18N500	5000	2360	5694	5955	1676	1415	445	450	6/6	1050	1150	1150	1250
wide view mast	XR15/18N550	5500	2560	6194	6455	1876	1615	445	450	3/6	/	950	1050	1050
wide view mast	XR15/18N600	6000	2810	6694	6955	2126	1865	445	450	3/6	/	/	750	850

With sideshifter minus 150Kg with integral sideshifter minus 100kg

### 2.0-2.5t X series mast:(Pneumatic)

Type	Model	Max. fork height	Overall height		Free lift		Front Overhang	Tilt range	Capacity					
			Extended		Without backrest				Load capacity at 500mm					
			Lowered	Without backrest	With backrest	Without backrest			2.0t	2.5t	2.0t	2.5t		
mm	mm	mm	mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg		
wide view mast	XR25M250	2500	1749	3207	3545	160	160	460	460	6/12	2000	2500	2000	2500
wide view mast	XR25M270	2700	1849	3407	3746	160	160	460	460	6/12	2000	2500	2000	2500
wide view mast	XR25M300	3000	1999	3707	4046	160	160	460	460	6/12	2000	2500	2000	2500
wide view mast	XR25M330	3300	2149	4007	4346	160	160	460	460	6/12	2000	2500	2000	2500
wide view mast	XR25M360	3600	2349	4307	4646	160	160	460	460	6/12	2000	2500	2000	2500
wide view mast	XR25M400	4000	2599	4707	5046	160	160	460	460	6/12	1900	2300	2000	2500
wide view mast	XR25M430	4300	2749	5007	5346	160	160	460	460	6/6	1800	2100	1950	2450
wide view mast	XR25M450	4500	2849	5207	5546	160	160	460	460	6/6	1700	2000	1900	2400
wide view mast	XR25M480	4800	2999	5507	5846	160	160	460	460	6/6	1500	1700	1700	2100
wide view mast	XR25M500	5000	3099	5707	6046	160	160	460	460	6/6	1400	1600	1600	2500
wide view mast	XR25M550	5500	3349	6207	6546	160	160	460	460	3/6	1050	1200	1500	1800
wide view mast	XR25M600	6000	3599	6707	7046	160	160	460	460	3/6	700	800	1400	1600
wide view mast	XR25U250	2500	1764	3179	3546	1025	619	470.5	470.5	6/12	2000	2500	2000	2500
wide view mast	XR25U270	2700	1864	3379	3746	1125	719	470.5	470.5	6/12	2000	2500	2000	2500
wide view mast	XR25U300	3000	2014	3679	4046	1275	869	470.5	470.5	6/12	2000	2500	2000	2500
wide view mast	XR25U330	3300	2164	3979	4346	1425	1019	470.5	470.5	6/12	2000	2500	2000	2500
wide view mast	XR25U360	3600	2314	4279	4646	1575	1169	470.5	470					