



A Series Internal Combustion Truck

with capacities of 12,000 to 16,000kg



HANGCHA GROUP 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



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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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A Series Internal Combustion Truck

The A series 12-16t forklifts are a new series of internal combustion counterweight forklifts independently developed on the basis of the 12t platform. Since the matching of the power transmission system is optimized, the design of the hydraulic and control systems has been likewise optimized, and the structures of the vehicle frame and mast are also optimized, so that the power and load capacity of the vehicle are greatly improved. With key parts all of domestically renowned brands, the forklifts are mature and reliable, and are suitable for loading, unloading, stacking and short-distance transportation in places with high work intensity and harsh operating conditions such as airports, ports, docks, stations, warehouses, etc.





Exterior and performance

- / Designed as a family and highly recognized, the compact and smooth exterior is stylish, high-end and highly recognizable.
- / The upper surfaces of the large locked toolbox and counterweight on the left and right sides of the vehicle body are designed to be fully flat to enable a large storage space.
- / With a small turning radius, the vehicle can be controlled flexibly and can be operated in a narrow space.

Good reliability

- / Integral steel plates are welded to form the vehicle frame and the tilt cylinder strength is optimized to adapt to heavy-duty and harsh operating conditions.
- / The high-power plate-fin heat dissipater and independent hydraulic oil heat dissipater have been subjected to heat balance test verified under two kinds of operating conditions - typical operating conditions and no-load maximum-speed long-distance driving conditions, to ensure the normal operations of the system under various operating conditions.
- / A small counterweight can be provided under the steering axle to lower the center of gravity and provide a large load margin.
- / The wide-open mast enables higher torsion resistance of the mast and a broader view.

A simple and efficient hydraulic system

- / The fully hydraulic load sensing steering system makes steering easier and more flexible.
- / Two pumps are used to enable merging and less pressure loss and energy consumption.
- / Performed by a simple system, the fully hydraulic power braking is reliable.

Easy maintenance

- / With the LCD instruments to display the relevant information of the vehicle which emit an alarm for an engine fault, the running status of the vehicle can be monitored and fault queries can be performed to facilitate problem analysis.
- / An integrated electrical box is used to facilitate concentrated troubleshooting.
- / A cloud smart module provided for the standard configuration facilitates vehicle management.
- / The wide-open hood, water tank lid, left and right hood side panels and front bottom panel can be removed easily to facilitate maintenance.

Strong power

The engine uses a domestic Yuchai A07 No. 4 platform:

- / Clean emissions.
- / Bosch's non-road special common rail system is used to adapt to non-road oil products.
- / Up to 28 durability tests of the vehicle are conducted to ensure reliable quality.
- / An oil change interval of 500 hours enables low use cost.
- / Low speed and high torque, good performance of acceleration at medium and high speeds, strong power.

The gearbox matches the custom-developed 16t domestic special gearbox:

- / The 340 torque converter has a large capacity, high efficiency and good traction performance.
- / The PTO port outputs high torque and can be matched with a large-displacement gear pump.
- / The electronic steering provided for the standard configuration makes operations easier.

Domestic caliper drive axle

- / A main gearbox for heavy-duty trucks and a heavy-duty brake are used to provide a large braking force and reliable braking.
- / The integrally-cast axle housing has good strength.
- / The input shaft cable-type central parking brake is simple and reliable and can be operated easily.



Standard Specification

- / Standard seat
- / Standard fork
- / Standard fork carriage
- / Standard overhead guard
- / Rainproof overhead guard cover
- / Duplex wide-view mast
- / Vehicle toolkit
- / Traction device
- / High-position emission device
- / Electro-hydraulic steering
- / Fully hydraulic power steering
- / Hydraulic power braking
- / Neutral gear safety switch
- / Main power switch
- / Steering wheel adjusting device
- / Cable-type stop brake
- / Anti-skid boarding step
- / Left and right boarding handles
- / Quadruple multi-way valve
- / Air filter
- / Rearview mirror
- / Engine hood gas spring
- / Hydraulic oil level meter
- / Self-locking valve in the tilting fuel circuit
- / Speed limit valve in the lifting fuel circuit
- / Water thermometer
- / Hydraulic oil suction filter
- / Hydraulic oil heat dissipater
- / Large toolkit
- / Electric horn
- / Reverse buzzer
- / Combination headlight
- / Front work light
- / Combination tail light
- / Tilt cylinder jacket
- / Engine hour counter
- / Oil gauge
- / Preheating indicator
- / Charge indicator
- / Engine oil pressure alarm light
- / Oil-water separator indicator
- / Electric flameout
- / Hydraulic prong adjustment



Options

- / Cab
- / Cab heater
- / Cab air conditioner
- / Solid tire
- / User specified color
- / Suspended safety seat
- / High and low overhead guards
- / Fuel tank cap locked
- / Basin-shaped double air filter
- / Heat dissipater grille
- / Automatic gear shifting
- / Exhaust fire protection device
- / Warning light
- / Fire extinguisher
- / Blue light
- / Rear work light
- / Speed limit alarm device
- / Weighing system
- / 4-probe visual reverse system
- / Reversing radar

A Series Internal Combustion Truck Specification

Distinguishing mark	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.					
			CPCD140-AXG83	CPCD160-AXG83	CPCD120-AXG90	CPCD140-AXG90	CPCD160-AXG90	
Distinguishing mark	1.2	Manufacturer's type designation						
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Diesel	Diesel	Diesel	Diesel	Diesel	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated	Seated	
	1.5	Rated capacity/rated load	14000	16000	12000	14000	16000	
	1.6	Load centre distance	Q (kg)	600	600	600	600	
	1.8	Load distance, centre of drive axle to fork	x (mm)	805	805	736	805.5	
	1.9	Wheelbase	y (mm)	3100	3100	2950	3100	
	Weight	2.1	Service Weight	kg	17500	18500	14950	17500
		2.2	Load distribution,laden,front/rear	kg	28200/3300	31580/2920	24670/2280	28200/3300
2.3		Load distribution,unladen,front/rear	kg	7875/9625	8325/10175	7065/7885	7875/9625	
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	
	3.2	Tyre size, front	11.00-20-20PR	12.00-20-20PR	10.00-20-18PR	11.00-20-20PR	12.00-20-20PR	
	3.3	Tyre size, rear	11.00-20-20PR	12.00-20-20PR	10.00-20-18PR	11.00-20-20PR	12.00-20-20PR	
	3.5	Wheels, number front / rear (x = driven wheels)	4×/2	4×/2	4×/2	4×/2	4×/2	
	3.6	Tread, front	b ₁₀ (mm)	1880	1880	1744	1880	
	3.7	Tread, rear	b ₁₁ (mm)	1890	1890	1850	1890	
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6/12	6/12	6/12	6/12
4.2		Height, mast lowered	h ₁ (mm)	3290	3290	3130	3290	
4.3		Free lift	h ₂ (mm)	90	90	80	90	
4.4		Lift	h ₃ (mm)	3000	3000	3000	3000	
4.7		Height of overhead cabin	h ₆ (mm)	2865	2865	2603	2865	
4.20		Length to face of forks	l ₂ (mm)	4730	4750	4400	4730	
4.21		Overall width	b ₁ /b ₂ (mm)	2580	2580	2320	2580	
4.22		Fork dimensions	s/e/l (mm)	90×200×1500	90×200×1500	80×200×1500	90×200×1500	
4.24		Fork-carriage width	b ₃ (mm)	2378	2378	2313	2378	
4.25		Distance between fork-arms	b ₅ (mm)	520/2200	520/2200	520/2150	520/2200	
4.31		Ground clearance, laden, below mast	m _L (mm)	270	270	250	270	
4.34.2		Aisle width with load length	A _{st} (mm)	6840	6855	6510	6840	
4.35		Turning radius	W ₀ (mm)	4335	4350	4180	4335	
Performance data		5.1	Travel speed, laden/unladen	km/h	26/30	25/29	27/30	26/30
		5.2	Lift speed, laden/unladen	m/s	0.330/0.360	0.330/0.360	0.390/0.430	0.330/0.360
	5.3	Lowering speed, laden/unladen	m/s	0.450/0.400	0.450/0.400	0.500/0.400	0.450/0.400	
	5.5	Drawbar pull, laden/unladen	N	100000/-	100000/-	100000/60000	100000/-	
	5.7	Gradeability, laden/unladen	%	20/-	20/-	28/20	20/-	
	7.1	Engine manufacturer/type		YUCHAI/YCA07160-T300		YUCHAI/YCA07160-T400		
	7.2	Emission STD		GB3	GB3	GB4	GB4	
Combustion-engine	7.2	Engine power	kW	118	118	118	118	
	7.3	Rated speed	r/min	2200	2200	2200	2200	
	7.4	Number of cylinders/displacement	(-)/(cm ³)	6/6870	6/6870	6/6870	6/6870	
	7.9	Vehicle electrical system voltage	V	24	24	24	24	
	7.10	Battery voltage/nominal capacity	V/Ah	2×12/120	2×12/120	2×12/120	2×12/120	
Addition data		Rated torque	N·m/r/min	670/1400-1700	670/1400-1700	670/1400-1700	670/1400-1700	
		Transmissions Type		Powershifter	Powershifter	Powershifter	Powershifter	
		Stage FWD/RVS		2/2	2/2	2/2	2/2	
	10.1	Operating pressure for attachments	bar	150	150	150	150	
10.4	Fuel tank capacity	liter	200	200	200	244		

12t Mast Specification:(Pneumatic)

Type	Model	Max. fork height	Extended height		Free lift height		Front Overhang	Tilt range	Capacity		
			Lowered	Without backrest	With backrest	Without backrest			With backrest	Load Capacity at 600mm	12t
2-stage wide view mast		mm	mm	mm	mm	mm	mm	(°)	kg	kg	
		XR120M250	2500	2880	4145	0	0	730	6/12	12000	12000
		XR120M270	2700	2980	4345	0	0	730	6/12	12000	12000
		XR120M300	3000	3130	4645	0	0	730	6/12	12000	12000
		XR120M330	3300	3280	4945	0	0	730	6/12	12000	12000
		XR120M360	3600	3430	5245	0	0	730	6/12	12000	12000
		XR120M400	4000	3630	5645	0	0	730	6/12	12000	12000
		XR120M430	4300	3830	5980	0	0	730	6/6	12000	12000
		XR120M450	4500	3930	6180	0	0	730	6/6	12000	12000
		XR120M480	4800	4080	6480	0	0	730	6/6	12000	12000
		XR120M500	5000	4180	6680	0	0	730	6/6	12000	12000
		XR120M550	5500	4480	7230	0	0	730	3/6	10000	10000
		XR120M600	6000	4730	7730	0	0	730	3/6	9000	9000
	XR120M650	6500	5030	8280	0	0	730	3/6	8000	8000	

14-16t Mast Specification:(Pneumatic)

Type	Model	Max. fork height	Extended height		Free lift height		Front Overhang	Tilt range	Capacity		
			Lowered	Without backrest	With backrest	Without backrest			With backrest	Load Capacity at 600mm	14t
2-stage wide view mast		mm	mm	mm	mm	mm	mm	(°)	kg	kg	kg
		AX160M300	3000	3290	4790	0	0	805	6/12	14000	16000
		AX160M330	3300	3440	5090	0	0	805	6/12	14000	16000
		AX160M360	3600	3590	5390	0	0	805	6/12	14000	16000
		AX160M400	4000	3790	5790	0	0	805	6/12	14000	16000
		AX160M430	4300	3990	6140	0	0	805	6/12	14000	16000
		AX160M450	4500	4090	6340	0	0	805	6/12	14000	16000
		AX160M480	4800	4240	6640	0	0	805	6/6	14000	16000
		AX160M500	5000	4340	6840	0	0	805	6/6	14000	16000
		AX160M550	5500	4640	7390	0	0	805	3/6	12000	14000
		AX160M600	6000	4890	7890	0	0	805	3/6	10000	12000
		AX160M650	6500	5190	8440	0	0	805	3/6	8000	10000

