



A2 Series Internal Combustion Forklift

with capacities of 4,000 to 5,000kg



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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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The World of Hangcha



A2 SERIES INTERNAL COMBUSTION FORKLIFT



The A2 series are upgraded products that adopt advanced technology and are independently developed by Hangcha on the basis of the prior products.

Through comprehensive upgrade of the exterior design, efficiency and energy saving, safety, comfort and reliability, and comfort and convenience, the performance of the vehicle has been significantly improved in comparison with the prior products, and the vehicle has become the forklift meeting your different needs.

New exterior design

- / With the inherited exterior design of Hangcha's products, classic but innovative, the vehicle has a smooth, vivid and sturdy profile.
- / With a half enclosed dashboard, the vehicle looks compact and aesthetically pleasing.

HIGH EFFICIENCY AND ENERGY SAVING

FUEL CONSUMPTION
REDUCED BY

10%

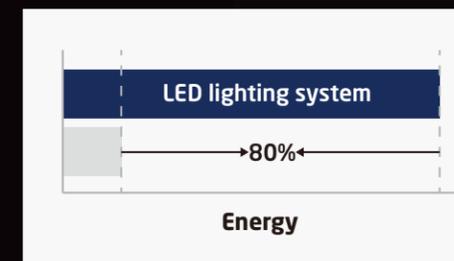
For the standard configuration, a Xinchai single electric pump-equipped diesel engine, which meets China off-road Stage III emission requirements.



HYDRAULIC SYSTEM SAVES 4% ENERGY

- / For the standard configuration, load sensing is provided to ensure steering priority and reduce energy loss.
- / Increase the hydraulic pipe diameter and optimize pipe elbows and layout so as to reduce energy loss, lower the hydraulic oil temperature and prolong the service life of hydraulic components.

LED LIGHTING ENERGY SAVING 80%



The vehicle uses an energy-saving LED lighting system, which significantly improves the performance and service life of the lights.



The integrated lighting combination switch makes operations easier.





Increase the space of the pedals on the car, making it more convenient to get on the car.



The non-slip seat with adjustable padded backrest offers more driving comfort.



For the standard configuration, a less-angled accelerator pedal is provided to reduce the driver's fatigue.

**ACCELERATOR
PEDAL FORCE
REDUCED BY
30%**

COMFORT AND CONVENIENCE

NVH OPTIMIZATION

30% REDUCTION IN VIBRATION

With the shock-absorbing design of multiple items, the idle-speed and high-speed shock absorption rates are improved, and the vehicle has less vibration.

NOISE REDUCTION 2dB

With the optimized independent air intake channel and large-capacity air intake silencer, the vehicle makes less noise.



The newly developed bus instruments more clearly show the information such as the running status of the vehicle, fault detection, maintenance reminders, etc. to the driver, and make maintenance easier.



The panoramic rearview mirror provides a wider rearview field of view, making driving more comfortable.



REPAIR SPACE INCREASED BY 10%

The wider opened hood makes maintenance easier.
The integrated hydraulic lids make maintenance easier.



SAFETY AND RELIABILITY

**70%
INCREASE IN
BRAKE LIFE**

The comprehensively upgraded braking system has its braking reliability and comfort significantly improved and service life greatly prolonged.

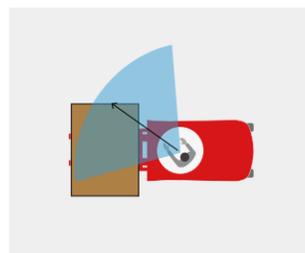
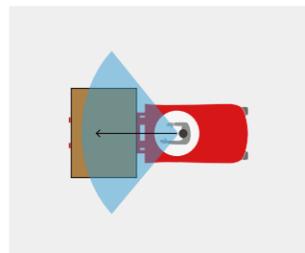
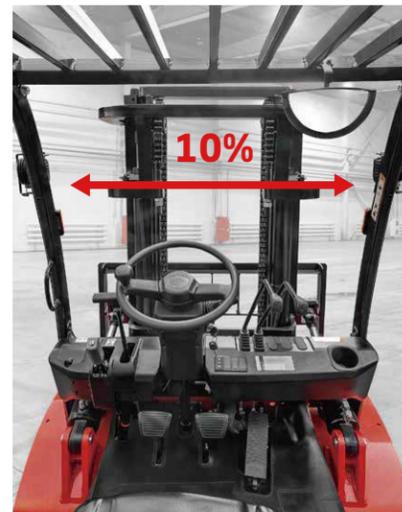
- / With optimized design of layout and center of gravity, the vehicle is more stable.
- / With the vacuum-assisted braking system provided for the standard configuration, less operating force is needed, and braking will not be a hindrance for steering, and vice versa.
- / The hydraulic system uses 24° conical seals to improve the sealing performance.
- / Key parts use waterproof connectors so that the protection level of the electrical system is improved.



By optimizing the heat dissipation system, the counterweight heat dissipation channel is improved, the air resistance of the heat dissipater is reduced, the cooling efficiency is improved, and the reliable operation of the engine is ensured.



A brand new air filter with a safety filter element makes the engine air intake cleaner and more powerful.



MAST VISIBILITY INCREASED BY 10%

With an ultra-wide view mast, upgraded chains and longitudinally-arranged sprockets, the safety coefficient of the mast and the front view through the mast are significantly improved.

The overhead guard uses high-strength profiled steel pipes so that the sealing of the cab (optional) is good.

Standard configuration

- / Anti-skid boarding step
- / Air filter (with safety filter element)
- / Hydraulic oil dipstick
- / Traction device
- / Flow control valve
- / Fully hydraulic power steering
- / Duplex ultra-wide view mast
- / Standard fork
- / Lifting and tilting joystick
- / Steering wheel adjusting device
- / Large rubber pedal pad
- / Left boarding handle
- / Half enclosed instrument cover
- / Headlight frame
- / Oil gauge
- / Preheating indicator
- / Engine oil pressure alarm
- / Neutral gear safety switch
- / Overhead guard made of profiled pipes
- / Seat with seat belt and adjustable backrest
- / Two-piece multiway valve
- / Air intake silencer
- / Maintenance reminder
- / Oil-water separator
- / Electric oil pump
- / Engine failure indicator
- / Spherical rearview mirror
- / Folder
- / Integrated electrical box
- / Electric flameout
- / Cup holder
- / Front LED operation light
- / Front LED lights and rear combination lights
- / Electric horn
- / Rain cover
- / Electronic accelerator pedal
- / Gearbox oil temperature alarm (hydraulic transmission)
- / Gearbox dipstick (hydraulic transmission)
- / Tire dedicated for Hangcha
- / Load backrest
- / High-position air intake device
- / Hydraulic oil suction filter cartridge
- / Self-locking valve in the tilting fuel circuit
- / Cable-type stop brake
- / Lighting combination switch
- / 24° conical hydraulic pipe
- / Reversing buzzer
- / Class III (IV) fork carriage
- / Engine hour counter
- / Load safety valve
- / Lockable gas spring
- / Charge indicator
- / Oil cooler (hydraulic transmission)
- / Vehicle toolkit
- / Water temperature meter

Optional devices and accessories

- / Tilt cylinder jacket
- / Double drive wheels
- / Cab
- / High-position exhauster
- / User specified color
- / Cab heater
- / Fully-suspended seat
- / Rear tire chamber sealing plate
- / Rear LED operation light
- / Heat dissipater grille
- / Solid tire
- / Color tire (white/green)
- / Mid-position emission device
- / Exhaust fire protection device
- / PVC lid
- / Lockable hood
- / Electronic steering
- / Auxiliary hydraulic valve assembly
- / Fire extinguisher
- / Rear armrest with a horn button
- / Counterweight grille
- / High and low overhead guards
- / Alarm light
- / Odometer
- / Fully enclosed steel plate of overhead guard
- / Rear combination light frame
- / Engine with speed limiting function
- / Main power switch
- / Fan protection device
- / Overspeed alarm
- / Double air filters
- / Fuel tank cap locked
- / Double-layer soundproof pad and leather jacket of hood

Optional attachments

- / Paper roll clamp
- / Rotatable roll clamp
- / Load stabilizer
- / Multi-purpose barrel clamp
- / Tie rod
- / Side shift fork
- / Rotating fork
- / Lengthened fork sleeve
- / Load ejector
- / Weighing system
- / Soft package clamp
- / Oil barrel clamp
- / Tipping fork
- / Boom
- / Lengthened fork
- / Cardboard box clamp
- / Pusher
- / Bucket
- / Hook

Mast's special device

- / Free duplex wide-view mast
- / Special fork
- / Free triplex wide-view mast
- / Heightened load backrest
- / Special duplex wide-view mast
- / Widened fork carriage

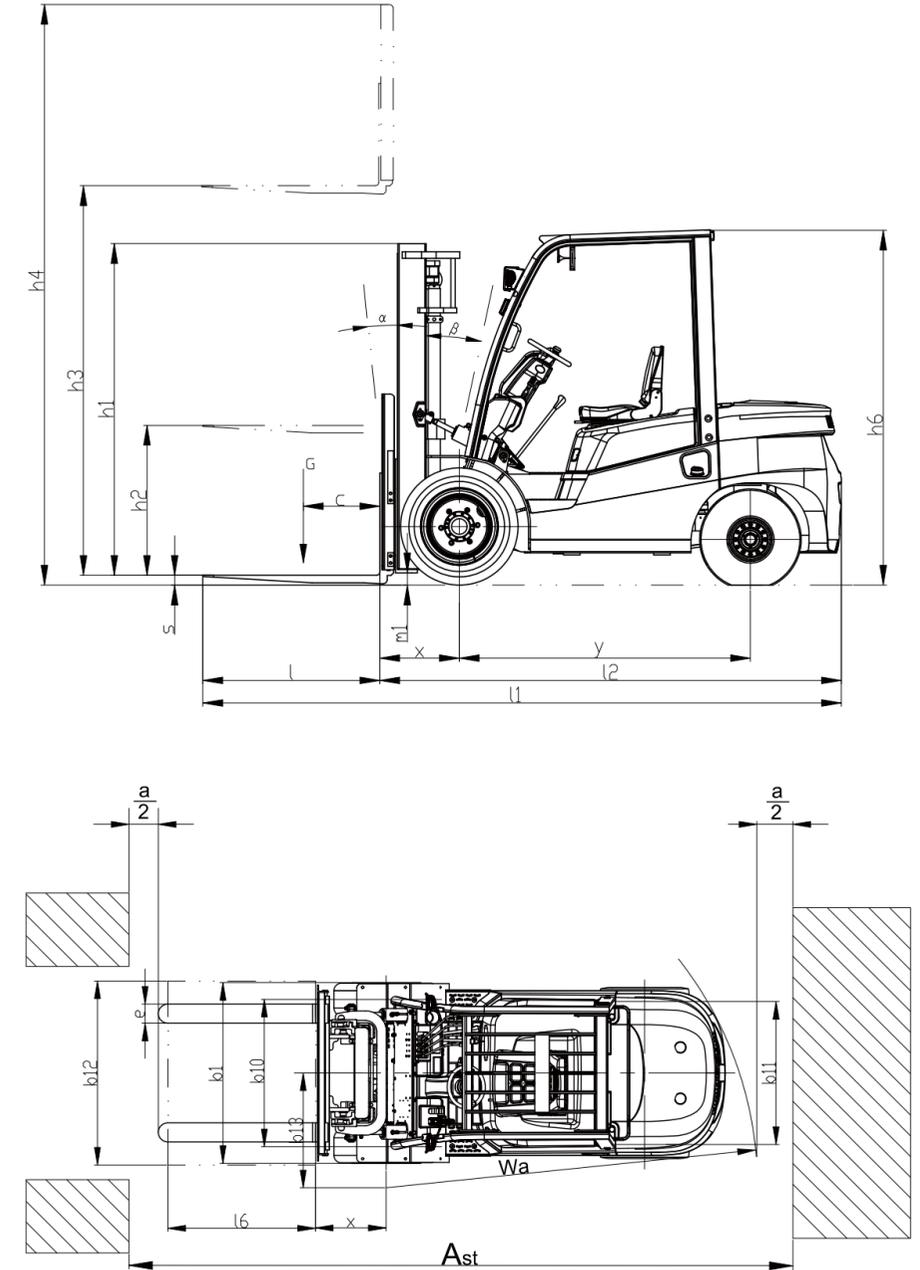
A2 Series Internal Combustion Forklift Specification

Distinguishing mark	HANGCHA GROUP CO.,LTD.				
	1.1 Manufacturer	CPCD40-A2G53	CPCD45-A2G53	CPCD50-A2XG53	
1.2	Manufacturer's type designation				
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Diesel	Diesel	Diesel	
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	
1.5	Rated capacity/rated load	Q (kg)	4000	4500	5000
1.6	Load centre distance	c (mm)	500	500	500
1.8	Load distance, centre of drive axle to fork	x (mm)	550	550	555
1.9	Wheelbase	y (mm)	2100	2100	2100
2.1	Service Weight	kg	5970	6220	6500
2.2	Axle loading, laden front/rear	kg	8640/1330	9450/1270	10330/1170
2.3	Axle loading, unladen front/rear	kg	2670/3300	2720/3500	2800/3700
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		Pneumatic	Pneumatic	Pneumatic
3.2	Tyre size, front		8.25-15-14PR/2	300-15-20RP/2	300-15-20RP/2
3.3	Tyre size, rear		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
3.5	Wheels, number front / rear (x = driven wheels)		2×/2	2×/2	2×/2
3.6	Tread, front	b10 (mm)	1160	1190	1190
3.7	Tread, rear	b11 (mm)	1130	1130	1130
4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6/12	6/12	6/12
4.2	Height, mast lowered	h1 (mm)	2245	2245	2245
4.3	Free lift	h2 (mm)	160	160	160
4.4	Lift	h3 (mm)	3000	3000	3000
4.5	Height, mast extended	h4 (mm)	4170	4170	4380
4.7	Height of overhead guard	h6 (mm)	2350	2350	2350
4.8	Seat height relating to SIP	h7 (mm)	1302	1302	1302
4.12	Coupling height	h10 (mm)	520	520	520
4.19	Overall length	l1 (mm)	4260	4280	4285
4.20	Length to face of forks	l2 (mm)	3190	3210	3215
4.21	Overall width	b1 (mm)	1420	1490	1490
4.22	Fork dimensions	s/e/l (mm)	50×122×1070	50×150×1070	50×150×1070
4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		3/A	3/A	4/A
4.24	Fork-carriage width	b3 (mm)	1350	1350	1350
4.25	Distance between fork-arms	b5 (mm)	300-1250	300-1250	300-1250
4.31	Ground clearance, laden, below mast	m1 (mm)	150	150	150
4.32	Ground clearance, centre of wheelbase	m2 (mm)	230	230	230
4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	4530	4570	4575
4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (mm)	4730	4770	4775
4.35	Turning radius	Wa (mm)	2780	2820	2820
4.36	Minimum pivoting point distance	b13 (mm)	863	863	863
5.1	Travel speed, laden/unladen	km/h	24/25	24/25	24/25
5.2	Lift speed, laden/unladen	m/s	0.55/0.58	0.55/0.58	0.48/0.51
5.3	Lowering speed, laden/unladen	m/s	0.44/0.46	0.44/0.46	0.44/0.46
5.5	Drawbar pull, laden/unladen	N	39100/20000	39100/20000	39100/20000
5.7	Gradeability, laden/unladen	%	25/20	23/20	20/20
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
	Parking brake		Mechanical	Mechanical	Mechanical
7.1	Engine manufacturer/type		Xinchai4D35ZG31-003	Xinchai4D35ZG31-003	Xinchai4D35ZG31-003
7.2	Engine power	kw	60	60	60
7.3	Rated speed	r/min	2200	2200	2200
7.4	Number of cylinders/displacement	(-)/(cm³)	4/3470	4/3470	4/3470
7.9	Vehicle electrical system voltage	V	24	24	24
7.10	Battery voltage/nominal capacity	V/Ah	2-12/60	2-12/60	2-12/60
	Rated torque	N·m/r/min	300/1600-1800	300/1600-1800	300/1600-1800
	Transmissions Manufacturer		China	China	China
	Transmissions Type		Powershift	Powershift	Powershift
	Stage FWD/RVS		2/1	2/1	2/1
10.1	Operating pressure for attachments	Mpa	18	18	18
10.3	Hydraulic Tank - capacity (drain & refill)	liter	80	80	80
10.4	Fuel tank capacity	liter	100	100	100

4.0-5.0t Mast Specification:(Pneumatic)

Type	Model	Max. fork height	Overall height						Free lift height				Front Overhang	Tilt range	Capacity						
			Lowered	Extended		Without backrest		With backrest		Without backrest		With backrest			Load Capacity at 500mm						
				4.0t/4.5t	5.0t	4.0t/4.5t	5.0t	4.0t/4.5t	5.0t	4.0t/4.5t	5.0t	Single Tire			Double tire						
				mm	mm	mm	mm	mm	mm	mm	mm	(°)			kg	kg	kg	kg	kg	kg	
Wide view Duplex mast	A2A45/A2X50M245	2450	1970	3270	3310	3620	3830	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M265	2650	2070	3470	3510	3820	4030	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M300	3000	2245	3820	3860	4170	4380	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M330	3300	2420	4120	4160	4470	4680	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M350	3500	2520	4320	4360	4670	4880	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M360	3600	2570	4420	4460	4770	4980	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M370	3700	2620	4520	4560	4870	5080	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M400	4000	2845	4845	4860	5170	5380	150	150	150	150	550	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50M430	4300	2995	5145	5160	5470	5680	150	150	150	150	550	6/6	3800	4300	4700	4000	4500	5000		
	A2A45/A2X50M450	4500	3095	5345	5360	5670	5880	150	150	150	150	550	6/6	3700	4200	4500	3900	4400	4900		
	A2A45/A2X50M470	4700	3195	5545	5560	5870	6080	150	150	150	150	550	6/6	3500	4000	4300	3700	4200	4600		
	A2A45/A2X50M480	4800	3320	5720	5720	5970	6180	150	150	150	150	550	6/6	3500	4000	4300	3700	4200	4600		
A2A45/A2X50M500	5000	3420	5920	5920	6170	6380	150	150	150	150	550	6/6	3200	3600	4000	3400	3900	4200			
A2A45/A2X50M550	5500	3670	6420	6420	6670	6880	150	150	150	150	550	3/6	2900	3200	3500	3100	3500	3800			
A2A45/A2X50M600	6000	3920	6920	6920	7170	7380	150	150	150	150	550	3/6	2500	2700	3000	2800	2900	3300			
Free duplex wide-view mast	A2A45/A2X50U245	2450	1975	3270	3310	3620	3830	1155	1115	805	595	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U265	2650	2075	3470	3510	3820	4030	1255	1215	905	695	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U300	3000	2250	3820	3860	4170	4380	1430	1390	1080	870	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U330	3300	2400	4120	4160	4470	4680	1580	1540	1230	1020	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U350	3500	2500	4320	4360	4670	4880	1680	1640	1330	1120	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U370	3700	2600	4520	4560	4870	5080	1780	1740	1430	1220	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50U400	4000	2825	4825	4860	5170	5380	2005	1965	1655	1445	572	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50N400	4000	2075	4800	4840	5170	5380	1255	1215	955	755	602	6/12	4000	4500	5000	4000	4500	5000		
	A2A45/A2X50N430	4300	2165	5110	5150	5470	5680	1360	1320	1060	860	602	6/6	3600	4100	4400	3800	4300	4700		
	A2A45/A2X50N450	4500	2250	5320	5360	5670	5880	1430	1390	1130	930	602	6/6	3400	4000	4300	3500	4200	4600		
	A2A45/A2X50N470	4700	2315	5520	5560	5870	6080	1495	1455	1195	995	602	6/6	3300	3800	4100	3400	4000	4300		
	A2A45/A2X50N480	4800	2400	5700	5700	5970	6180	1580	1540	1280	1080	602	6/6	3300	3800	4100	3400	4000	4300		
A2A45/A2X50N500	5000	2450	5850	5860	6170	6380	1630	1590	1330	1130	602	6/6	3100	3500	3800	3200	3700	4000			
A2A45/A2X50N550	5500	2600	6320	6360	6670	6880	1780	1740	1480	1280	602	3/6	2800	3100	3500	3000	3400	3600			
A2A45/A2X50N600	6000	2825	6825	6860	7170	7380	2005	1965	1705	1505	602	3/6	2400	2600	2900	2600	2800	3200			
A2A45/A2X50N650	6500	3075	7375	7375	7670	7880	2255	2215	1955	1755	602	3/6	1150	1350	2000	2400	2500	2650			
A2A45/A2X50N700	7000	3300	8000	8000	8170	8380	2480	2440	2180	1980	602	3/6	550	750	1500	2000	2200	2350			

With sideshifter minus 200kg, with integrated sideshifter minus 100kg.
Lift height 7.5m/8.0m is optional for front dual tyres.



$$A_{st} = l_6 + x + W_a + a$$

l_6 : load length a : Clearance (200mm)