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XF Series Diesel Pneumatic Tire Forklift

with capacities of 17,500 to 26,000lbs

Making Material Handling Easier
SINCE 1956

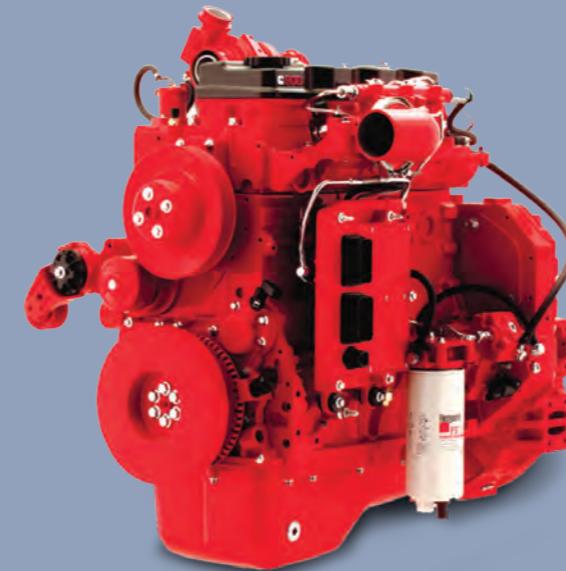


Simple
Smart
Solid



Diesel Powered HANGCHA Forklifts

Efficient, reliable solutions to meet your demands.



The applied optimized exhaust muffler, intake muffler and the noise shield technologies are reduced 3dB at the driver's ear noise level.

ISUZU

Productivity

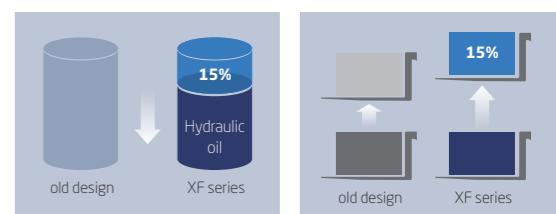
Thanks to a series of technological innovations, the efficiency of the truck is improved and energy consumption is reduced.



By optimizing the transmission design, the maximum driving speed is increased by 20%



The new efficient lighting system uses LEDs and a new type of reflector to reduce energy consumption. This significantly improves illumination performance while also prolonging operation time.



The new dynamic load sensing hydraulic steering system requires 15% less hydraulic oil while providing a 15% increase in lifting speed.

Operator Comfort

While developing the 17,500-22,000lb XF Series, comfort and ease of operation were carefully considered. The engineers decreased vibration levels by using a compound engine damper and full floating seat and cabin. The forklift was made more comfortable because a comfortable operator leads to increased operational productivity.

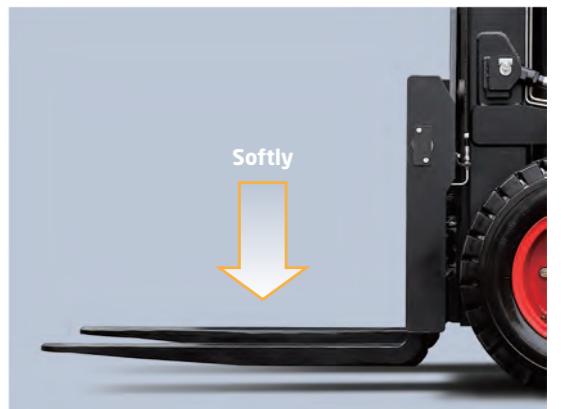


The foot space is now 30% wider to significantly reduce operator fatigue. The new wide, non-slip step makes getting in and out of the forklift safe and easy.

The easy-to-operate levers provide total load handling operation. The armrest is provided to reduce fatigue. The optional electro-hydraulic proportional control system gives the forklift the ability to make load handling more sensitive and precise.



The mast was redesigned to provide broad forward visibility. This was done by relocating the hydraulic pipes of the fork positioner to the outside of the mast.



In addition to the soft landing system, the soft lifting system is adopted (front lifting cylinders of the full free lift 2 & 3 stage masts). As a result, the noise and shock of the mast significantly decrease when lowering materials.

Comfortable Operation

1. The new relocated, easy-to-see LCD instrument display lets the operator check on all aspects of operational status with a glance.
2. The new automobile-style light/turn-signal stalk and the forward-reverse lever are ergonomically designed and arranged to improve comfort and productivity.
3. Only 90N of force is required to engage the parking brake.
4. The small-diameter steering wheel, with tilt adjustment, provides an optimal driving position for the operator. The superior responsiveness of the steering wheel optimizes maneuverability even in narrow spaces.
5. The automobile-style suspended pedals provide a more ergonomic, operator-centered experience.



Reliability

By focusing on enhancing reliability and reducing downtime, the XF Series is able to increase productivity for the end-users.

The patented plated-fin aluminum radiator is used to increase cooling and improved the forklift's capability in harsh, hot environments.



HANGCHA



Dampening pads are placed where the chassis meets the steering axle, engine, torque converter, and overhead guard. The suspension seat also comes standard. This is all included in the design to reduce the amount of vibration to the operator and increase operator comfort.

The chassis, mast, and front/rear axle are designed to be strong. These components are also made with durable components. This is all done to increase the safety and reliability of the truck when for use in high strength applications.



The controllers, relays, and safety fuses are all placed in the dust and water-free controller box. The main electronic components are also waterproof. This allows the operator to use the forklift in wet environments.

The new stamped air cleaner, with a double sealed safety filter, is durable, corrosion-free and vibration-resistant. This provides better filtration efficiency and lowers intake resistance.



The brake and steering hydraulic systems are separated to prevent interference between each other and increase reliability.

The battery is located above the fuel tank in a battery box. An adiabatic plate is placed between the box and the fuel tank to prolong the battery's working life.



The gearbox oil is fed through a return oil filter and multi-valve to improve the cleanliness of the hydraulic oil and improve the systems working life.

Easy Maintenance



Designed for easy inspection and servicing. The XF Series' quick and easy maintenance reduces downtime and operational costs.

The location of the air filter allows for easy reach and replacement when the filter needs to be changed.

The brake drum is installed outside of wheel hub allowing for easy removal and installation of the brake shoes.

The engine oil level dipstick, hydraulic filter, and water separator are easy to reach, and allow for easy maintenance.

The gas spring support for the front cover of the radiator auto-opens when the rear cover of the radiator is opened.

Safety

A wide range of technology is applied to ensure absolute safety for both the operator and those in the vicinity.



There's an energy accumulator in the braking system. This allows for the brakes to continue to function after the engine is shut off.



There is a locking mechanism found on the engine hood, damper, and parking brake for the operator's safety.



1. The Operator Presence Sensing System incorporates a lifting, tilting, and traveling stop function. When the operator leaves the seat, the system automatically locks the lifting/tilting functions and disables the forklift from traveling to ensure safety.

2. The throttling device locks the mast in place if there is a hydraulic failure. This adds to the operational safety of the truck.

Standard Specification

Transmission	Steering	Chassis	Control	Hydraulic
/ Suspension Transmission	/ Full Hydraulic Power Steering	/ Skidproof Pedal	/ Power Steering	/ Dynamic Load Sensing Control Valve
/ Oil Filter	/ Smaller Diameter Steering Wheel	/ Rubber Pedal	/ Suspension Pedal	/ Hydraulic Oil Filter
/ Dipstick	/ Adjustable Steering Wheel	/ Engine Hood Spring	/ Integrated Combination Switch	/ Tilt Cylinder Self-Lock Valve
/ Oil Cooler	/ Steering Axle Shock Absorber		/ Parking Brake	/ Hydraulic Oil Dipstick
/ Non-Asbestos Brakes				/ Accumulator
/ Wet Brakes				/ Hydraulic Oil Radiator

Truck	Power	Electronics	Mast
/ Traction Device	/ Large Capacity Aluminum Radiator	/ Highly Efficient LED Headlights	/ Limited Free Lift 2 Stage Mast
/ Hand Grip	/ Whirlwind Air Cleaner	/ & Taillights	/ Standard Forks
/ Standard Seat	/ Safety Filter	/ Maintenance Free Battery	/ Standard Fork Carriage
/ Floating/Waterproof Overhead Guard	/ Highly Efficient Intake Muffler	/ Combination Controller	/ Mast Speed Limiting Valve
/ Rearview Mirror	/ Highly Efficient Exhaust Muffler	/ LCD Display	/ Load Safety Valve
/ Air Pneumatic Tires	/ Overhead Gaurd Exhaust System	/ Neutual Switch	/ Soft Landing System
/ Fan Protector		/ Hour Meter	/ Soft Lifting System
/ Boot for Tilt Cylinder		/ Fuel Gauge	/ Emergency Cut Off
		/ Water Temperature Gauge	/ Operator Presence Sensing System (OPS)
		/ Strobe Light	/ Fork Positioner



Options

- / Full Cabin
- / Cabin Heater
- / Front Window with Wiper
- / Solid Pneumatic Tire
- / Non-Marking Tire
- / Full Suspension Seat
- / Fire Extinguisher
- / Special Colors
- / Counterweight Grill
- / Air Pre-Cleaner
- / Radiator Screen
- / Fan Protector
- / Auxiliary Hydraulic Valve
- / Electro-Hydraulic Proportional Control System
- / Front Working Light
- / Rear Working Light
- / Full Free Lift 2 Stage Mast
- / Full Free Lift 3 Stage Mast
- / Various Special Forks
- / Wider Fork Carriages
- / Wider Load Backrest
- / Various Specialty Attachments

17500-22000lb XF Series Mast:

Type	Model	Max. Fork Height in	Overall Height		Free Lift Without Backrest in	Load Distance, Centre of Drive Axle to Fork in	Tilt Range (°)	Load Capacity	
			Lowered in	Extended Without Backrest in				Load Capacity at 24"	
			FWD/BWD		Double Tire			17500 lb	22000 lb
Limited Free Lift 2 Stage Mast	X80M250	98	96	146	7.8	28.1	6/12	17500	/
	X80M270	106	100	154	7.8	28.1	6/12	17500	/
	X80M300	118	106	166	7.8	28.1	6/12	17500	/
	X80M330	130	112	178	7.8	28.1	6/12	17500	/
	X80M350	138	116	185	7.8	28.1	6/12	17500	/
	X80M360	142	118	189	7.8	28.1	6/12	17500	/
	X80M400	157	126	205	7.8	28.1	6/12	17500	/
	X80M430	169	134	217	7.8	28.1	6/6	17500	/
	X80M450	177	138	225	7.8	28.1	6/6	17500	/
	X80M480	189	144	237	7.8	28.1	6/6	17500	/
	X80M500	197	148	244	7.8	28.1	6/6	17500	/
	X80M550	217	159	265	7.8	28.1	3/6	16314	/
	X80M600	236	169	285	7.8	28.1	3/6	15432	/
	X80M650	256	181	307	7.8	28.1	3/6	12787	/
	X100M250	98	102	160	7.8	28.6	6/12	/	22000
	X100M270	106	106	168	7.8	28.6	6/12	/	22000
	X100M300	118	112	179	7.8	28.6	6/12	/	22000
	X100M330	130	118	191	7.8	28.6	6/12	/	22000
	X100M350	138	122	199	7.8	28.6	6/12	/	22000
	X100M360	142	124	203	7.8	28.6	6/12	/	22000
	X100M400	157	132	219	7.8	28.6	6/12	/	22000
	X100M430	169	140	231	7.8	28.6	6/6	/	22000
	X100M450	177	144	238	7.8	28.6	6/6	/	22000
	X100M480	189	150	250	7.8	28.6	6/6	/	22000
	X100M500	197	154	258	7.8	28.6	6/6	/	22000
	X100M550	217	165	278	7.8	28.6	3/6	/	19872
	X100M600	236	175	297	7.8	28.6	3/6	/	17637
	X100M650	256	187	317	7.8	28.6	3/6	/	14771
Full Free Lift 2 Stage Mast	X80U230	91	93	138	45	28.3	6/12	17500	/
	X80U250	98	96	146	49	28.3	6/12	17500	/
	X80U270	106	100	154	53	28.3	6/12	17500	/
	X80U300	118	106	166	59	28.3	6/12	17500	/
	X80U330	130	112	177	65	28.3	6/12	17500	/
	X80U360	142	118	189	71	28.3	6/12	17500	/
	X80U400	157	126	205	79	28.3	6/12	17500	/
	X100U230	91	98	151	38	29.3	6/12	/	22000
	X100U250	98	102	159	42	29.3	6/12	/	22000
	X100U270	106	106	167	45	29.3	6/12	/	22000
	X100U300	118	112	179	51	29.3	6/12	/	22000
	X100U330	130	118	191	57	29.3	6/12	/	22000
	X100U360	142	124	203	63	29.3	6/12	/	22000
	X100U400	157	131	218	71	29.3	6/12	/	22000
Full Free Lift 3 Stage Mast	X80N450	177	108	227	58	29.9	6/6	15432	/
	X80N480	189	112	239	62	29.9	6/6	15432	/
	X80N500	197	116	250	63	29.9	6/6	14330	/
	X80N550	217	122	268	71	29.9	3/6	13448	/
	X80N600	236	128	286	78	29.9	3/6	12346	/
	X80N650	256	139	309	87	29.9	3/6	11023	/
	X80N700	276	146	327	94	29.9	3/6	9259	/
	X100N450	177	112	238	51	31.3	6/6	/	18739
	X100N480	189	116	250	55	31.3	6/6	/	18739
	X100N500	197	120	258	59	31.3	6/6	/	18078
	X100N550	217	126	278	65	31.3	3/6	/	16976
	X100N600	236	132	297	71	31.3	3/6	/	15432
	X100N650	256	143	317	82	31.3	3/6	/	13669
	X100N700	276	150	337	89	31.3	3/6	/	11464

With sideshifter minus 1102lbs, with integral sideshifter minus 882lbs

XF Series Pneumatic Forklift 17,500-26,000lb Specification

	1.1	HANGCHA GROUP CO.,LTD.				
		FD80	FD100	FD120		
Distinguishing Marks	1.2	Manufacturer's Type Designation	CPCD80-XW41B	CPCD100-XW41B	CPCD120-XW41	
Weight	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Diesel	Diesel	Diesel	
Tires & Chassis	1.4	Operator Type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seat	
Dimensions	1.5	Rated Capacity/Rated Load	Q (lb)	17500	22000	26000
Performance Data	1.6	Load Centre Distance	c(in)	24	24	24
Combustion Engine	1.8	Load Distance, centre of drive axle to fork	x(in)	28	29	29
Additional Data	1.9	Wheelbase	y(in)	102	110	110
1.21	2.1	Service Weight	lb	26455	30423	31526
1.22	2.2	Axle Loading, laden front/rear	lb	39639/4453	47432/5015	53131/4850
1.23	2.3	Axle Loading, unladen front/rear	lb	10626/15829	14175/16248	13713/17813
3.1	3.1	Tires: solid rubber, superelastic, pneumatic, polyurethane		Pneumatic	Pneumatic	Pneumatic
3.2	3.2	Tire Size, front		9.00-20-14PR	9.00-20-14PR	9.00-20-14PR
3.3	3.3	Tire Size, rear		9.00-20-14PR	9.00-20-14PR	9.00-20-14PR
3.5	3.5	Wheels, number front rear (x = driven wheels)		4x/2	4x/2	4x/2
3.6	3.6	Tread, front	b ₁₀ (in)	64.1	64.1	64.1
3.7	3.7	Tread, rear	b ₁₁ (in)	66.9	66.9	67.8
4.1	4.1	Tilt of Mast/Fork Carriage Forward/Backward	α/β(°)	6/12	6/12	6/12
4.2	4.2	Height, mast lowered	h ₁ (in)	106.3	112.2	118.1
4.3	4.3	Free Lift	h ₂ (in)	7.9	7.9	7.9
4.4	4.4	Lift	h ₃ (in)	118	118	118
4.5	4.5	Height, mast extended	h ₄ (in)	165.2	178.9	185.2
4.7	4.7	Height of Overhead Guard	h ₅ (in)	101.6	101.6	101.6
4.8	4.8	Seat Height	h ₇ (in)	59.3	59.3	59.3
4.12	4.12	Coupling Height	h ₁₀ (in)	19.9	19.9	19.9
4.19	4.19	Overall Length	l ₁ (in)	216	226	230
4.20	4.20	Length to Face of Forks	l ₂ (in)	157	167	171
4.21	4.21	Overall Width	b ₁ (in)	85.2	85.2	85.2
4.22	4.22	Fork Dimensions	s/e/l (in)	3.0x6.3x59.1	3.1x6.3x59.1	3.1x7.9x59.1
4.23	4.23	Fork Carriage DIN 15173, class/type A, B		IV A	IV A	/
4.24	4.24	Fork-Carriage Width	b ₃ (in)	78.7	78.7	78.7
4.31	4.31	Ground Clearance, laden, mast	m ₁ (in)	7.3	7.3	9.8
4.32	4.32	Ground Clearance, centre of wheelbase	m ₂ (in)	13.3	13.3	13.3
4.34.1	4.34.1	Aisle Width for Pallets 39" x 47" Crossways	A _{st} (in)	221.9	231.2	235.4
4.34.2	4.34.2	Aisle width for pallets 31.5" x 47" Lengthways	A _{st} (in)	229.7	239.1	243.3
4.35	4.35	Turning Radius	W _a (in)	146.9	155.1	159.1
4.36	4.36	Internal Turning Radius	b ₁₃ (in)	53.1	55	55
5.1	5.1	Travel Speed, laden/unladen	mph	-/17.7	-/17.7	-/16.7
5.2	5.2	Lift Speed, laden/unladen	ft/min	86.6/-	65/-	70.9/-
5.3	5.3	Lowering Speed, laden/unladen	ft/min	89.6/-	89.6/-	89.6/-
5.5	5.5	Drawbar Pull, laden/unladen	N---ibf	65000/45000	65000/49000	65000/49000
5.7	5.7	Gradeability, laden/unladen	%	>20/-	>20/-	>20/-
5.10	5.10	Service Brake		Hydraulic	Hydraulic	Hydraulic
7.1	7.1	Engine Manufacturer/Type		ISUZU BB-6BG1TRC-06	ISUZU BB-6BG1TRC-06	ISUZU BB-6BG1TRC-06
7.2	7.2	Engine Power according to DIN ISO 1585	HP	131	131	131
7.3	7.3	Rated Speed	r/min	2200	2200	2200
7.4	7.4	No. of Cylinders/Displacement	(-)/(in ³)	6/396.3	6/396.3	6/396.3
10.1	10.1	Transmission Manufacturer		OKAMURA	OKAMURA	HANGCHA
10.2	10.2	Operating Pressure for Attachments	bar	195	195	215
10.8	10.8	Oil Volume for Attachments	l/min	57	57	180
		Towing Coupling, type DIN 15170	Pin	Pin	Pin	Pin

26,000lb XF Series Mast:

Type	Model	Overall Height		Free Lift Without Backrest	Load Distance, Centre of Drive Axle to Fork	Tilt Range	Load Capacity
		Max. Fork Height	Lowered				Load Capacity at 24"
			in				Double Tire
Wide View Mast	XX120M270	106.3	112.2	173.4	7.9	29.1	26000
	XX120M300	118.1	118.1	185.2	7.9	29.1	26000
	XX120M330	129.9	124.0	197.0	7.9	29.1	26000
	XX120M360	141.7	129.9	208.9	7.9	29.1	26000
	XX120M400	157.5	139.8	224.6	7.9	29.1	26000
	XX120M430	169.3	145.7	236.4	7.9	29.1	26000
	XX120M450	177.2	149.6	244.3	7.9	29.1	26000
	XX120M480	189.0	155.5	256.1	7.9	29.1	26000
	XX120M500	196.9	159.4	264.0	7.9	29.1	26000
	XX120M550	216.5	171.3	283.7	7.9	29.1	23152
	XX120M600	236.2	181.1	303.3	7.9	29.1	23152
	XX120M650	255.9	192.9	323.0	7.9	29.1	19845
							16537

With sideshifter minus 1102lbs, with integral sideshifter minus 882lbs

