



## XF Series Diesel / LPG Pneumatic Tire Trucks

with capacities of 11,000 to 15,500lbs

*The World of Hangcha*



# Simple/ Solid/ Smart



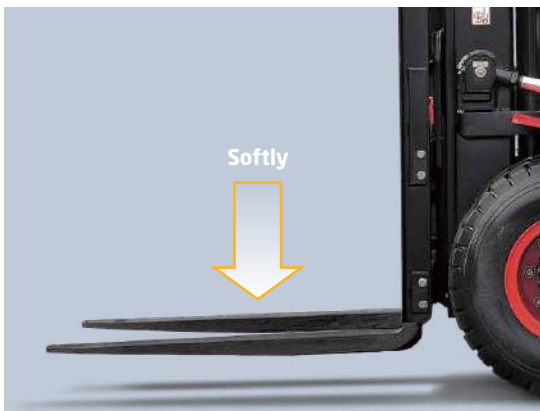
## Comfortable Operation

*In developing the XF series, comfort and easy operation is always considered, for example, improved vibrating levels, compound engine damper and full floating seat and cabin are applied. Comfortable also contribute to increased productivity.*



The extra foot space is provided to reduce operator fatigue significantly. The new wide-open, non-slip step makes getting in and out easy and safe.

The optional Electro-hydraulic proportional control system contributes more sensitive and precise load handling. The easy-to-operate levers provide total load handling operation. An armrest is provided to reduce fatigue.



In addition to the soft landing system, the soft lifting system is adopted (front lifting cylinders of triplex mast and full free duplex mast), as a result, the noise and shock of the mast significantly decreases.

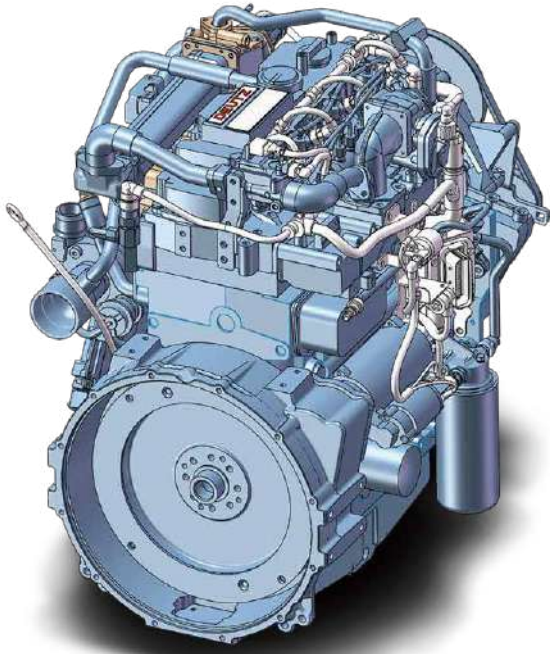


The new design mast provides broad forward visibility due to the distance between inside mast is increase 60mm.



# HANGCHA be with you at every stage

Efficient, reliable solutions for your demands



**DEUTZ**

## TIER 4F

With Hangcha you can meet all Tier 4f emissions standards which provides customer demands for value, innovation and performance. The technologies include common rail fuel systems, diesel oxidation catalysts (DOC) and diesel particulate filters (DPF). Designed and optimised to every engine model, our forklift truck maximises efficiency and reliability.



Interactive instrument: The instrument adopts 4.0-inch color LCD display with four interactive buttons, and has one CAN bus communication function. The communication protocol is compatible with CANopen and SAE J1939 standards.

## Comfortable Operation

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

# Productivity

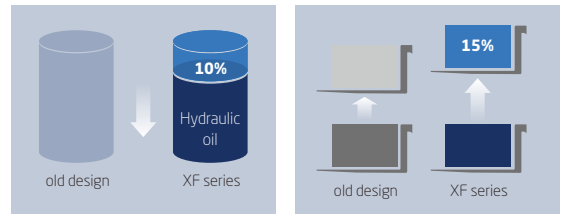
Thanks to the series technological innovations, the efficiency of the truck is improved, the energy consumption is reduced.



*By optimizing transmission design, the power train provides higher efficiency, and the Max. driving speed is increased **20%***



The new efficiency LED lighting system and new type reflector reduce energy consumption, improve illumination performance and prolong working life.



The new patent dynamic load sensing hydraulic steering system contributes to reduce loss of hydraulic, improve energy consumption and increase 15% lifting speed.



# Reliability

By focusing on enhancing reliability, reducing downtime, the XF series is able to make the greater productivity for customer.



The new stamped air cleaner featuring tangential intake, double seal with safety filter is durable, corrosion-free and vibration-resistant, provides better filter efficiency and lower intake resistance than the previous.



Brake oil and steering oil are separated, non-interference in each other, using dynamic load sensing steering system, more energy efficient.



# Easy Maintenance



Careful design facilitates inspection and servicing. Easy maintenance reduces the amount of downtime and helps to reduce cost also.

The location of the air-filter is easy to reach, and it's very easy to replace the filter.

All the locations of the engine oil level dipstick, filter of hydraulic, water separator are easy to reach, and very easy for engineer to check.

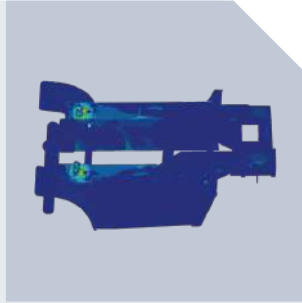
There's gas spring support for the front cover of radiator, and it can auto-open when the rear cover of radiator is opened.

The patent plated-fin type aluminum radiator is applied, the heat exchanging is approved, and improves the capability for operation in severe environments.



There're four levels shock absorption applied to reduced the vibration from the road to the driver. The damping pad is applied reduce the vibration, Like between the steering axle and the chassis, The engine, torque converter and the chassis, the overhead guard and the chassis. And the suspension seat is another vibration reduction.

High strength chassis, mast and front/rear axle are to make sure the reliability of the truck, even for high strength application.



All the controllers, relays, and safety fuses are allocated in the controller box, free to water and dust. The main electronic components are waterproof, which is capable operator in severe environment. And the famous brand air-filter is also applied in the truck.

## Safety

A wide range of technologies are applied to ensure absolute safety for both the operator and those in the surrounding.



There's an energy accumulator applied in the braking system, which means when the engine is shut down, it can also provide more than 4 times emergency brake.



The locking device of the engine hood damper and parking brake help add to safety.



1. The OPS system incorporates lifting/tilting and traveling locking function. When the operator leaves the seat, the system automatically locks lifting/tilting and disables traveling to ensure safety.
2. A throttling device is adopted to avoid the mast being out of control even some pipes are broken.

# Standards

Transmission	Steering	Chassiss	Control	Hydraulic
<ul style="list-style-type: none"> <li>/ Suspension transmission</li> <li>/ Oil filter</li> <li>/ Dipstick</li> <li>/ Oil cooler</li> <li>/ Non-asbesttos bake</li> <li>/ ZF transmission</li> <li>/ Wet brake</li> </ul>	<ul style="list-style-type: none"> <li>/ Full hydraulic power steering</li> <li>/ Smaller diameter steering wheel</li> <li>/ Adjuster of steering wheel</li> </ul>	<ul style="list-style-type: none"> <li>/ Skidproof pedal</li> <li>/ Rubber pedal</li> <li>/ Engine hood spring</li> </ul>	<ul style="list-style-type: none"> <li>/ Power steering</li> <li>/ Suspension pedal</li> <li>/ Integrated combination switch</li> <li>/ Parking brake</li> </ul>	<ul style="list-style-type: none"> <li>/ Dynamic load sending control valve</li> <li>/ Hydraulic oil filter</li> <li>/ Tilt cylinder self-lock valve</li> <li>/ Hydraulic oil dipstick</li> <li>/ Accumulator</li> </ul>

Truck	Power	Electronics	Mast	
<ul style="list-style-type: none"> <li>/ Traction device</li> <li>/ Hand grip</li> <li>/ Standard seat</li> <li>/ Standard overhead guard</li> <li>/ Waterproof cover on the guard</li> <li>/ Back view mirror</li> <li>/ Pneumatic tyres</li> </ul>	<ul style="list-style-type: none"> <li>/ Big capacity aluminum radiator</li> <li>/ Whirlwind air cleaner</li> <li>/ Safety filter</li> <li>/ High-efficient intake muffler</li> <li>/ High-efficient exhaust muffler</li> <li>/ Middle-positioned exhaust system</li> </ul>	<ul style="list-style-type: none"> <li>/ High-efficient front lights</li> <li>/ High-efficient LED rear lights</li> <li>/ Service-free start battery</li> <li>/ Combination controller</li> <li>/ LCD display</li> <li>/ Neutual switch</li> <li>/ Hour meter</li> <li>/ Fuel gauge</li> <li>/ Water temperature gauge</li> </ul>	<ul style="list-style-type: none"> <li>/ Pre-heat indicator</li> <li>/ Charging indicator</li> <li>/ Engine fuel pressure warning</li> <li>/ Oil temperature</li> <li>/ Horn</li> <li>/ Reversing buzzer</li> <li>/ Air-filter with jam sensor</li> <li>/ Emergency power off</li> </ul>	<ul style="list-style-type: none"> <li>/ Standard wide view duplex mast</li> <li>/ Standard forks</li> <li>/ Standard fork carriage</li> <li>/ Standard load back rest</li> <li>/ Mast speed limiting valve</li> <li>/ Load safety valve</li> <li>/ Mast down buffer device</li> <li>/ Mast up buffer device</li> <li>/ Side roller</li> </ul>

# Options

Truck	Power	Hydraulic	Electronics	Mast
<ul style="list-style-type: none"> <li>/ Full cabin</li> <li>/ Cabin heater</li> <li>/ Front window</li> <li>/ Solid Pneumatic Tire</li> <li>/ Non-mark tyre(white/green)</li> <li>/ Suspension seat</li> <li>/ Fire extinguisher</li> <li>/ Special color</li> <li>/ Boot for tilt cylinder</li> <li>/ Counter weight net</li> <li>/ OPS system</li> </ul>	<ul style="list-style-type: none"> <li>/ Air pre-cleaner</li> <li>/ Raditor screen</li> <li>/ Fan protector</li> </ul>	<ul style="list-style-type: none"> <li>/ Auxiliary hydraulic valve</li> <li>/ Elecctro-hydraulic</li> <li>/ Proportional control system</li> </ul>	<ul style="list-style-type: none"> <li>/ Front working light</li> <li>/ Rear working light</li> </ul>	<ul style="list-style-type: none"> <li>/ Duplex wide view free-lift mast</li> <li>/ Triplex wide view free-lift mast</li> <li>/ Special forks</li> <li>/ Wider fork carriage</li> <li>/ Widerload back rest</li> </ul>

# Optional Attachments

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





## XF series 11,000~15,500 lb forklift specification :

		HANGCHA GROUP CO.,LTD.							
		FD50G	FP50	FD60G	FP60	FD70G	FP70		
Distinguishing mark	1.1	Manufacturer							
		HCFA Model	FD50G	FP50	FD60G	FP60	FD70G	FP70	
	1.2	Manufacturer's type designation	CPCD50-XW65G	CPYD50-XW24	CPCD60-XW65G	CPYD60-XW24	CPCD70-XW65G	CPYD70-XW24	
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Diesel	LPG	Diesel	LPG	Diesel	LPG	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated	Seated	Seated	
	1.5	Rated capacity/rated load	Q (lb)	11000	11000	13500	13500	15500	15500
	1.6	Load centre distance	c(in)	24	24	24	24	24	
	1.8	Load distance, centre of drive axle to fork	x(in)	23.5	23.5	23.5	23.5	23.8	23.8
	1.9	Wheelbase	y(in)	90.5	90.5	90.5	90.5	90.5	90.5
Weight	2.1	Service weight	lb	17630	17630	18800	18800	20600	20600
	2.2	Axle loading, laden front/rear	lb	24890/3770	24890/3770	28190/3830	28190/3830	32230/3700	32230/3700
	2.3	Axle loading, unladen front/rear	lb	8530/9100	8530/9100	8260/10530	8260/10530	8150/12340	8150/12340
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	
	3.2	Tyre size, front	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	
	3.3	Tyre size, rear	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	8.25-15-14PR	
	3.5	Wheels, number front rear (x = driven wheels)	4x/2	4x/2	4x/2	4x/2	4x/2	4x/2	
	3.6	Tread, front	b <sub>10</sub> (in)	58.6	58.6	58.6	58.6	58.6	58.6
	3.7	Tread, rear	b <sub>11</sub> (in)	66.9	66.9	66.9	66.9	66.9	66.9
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6/12	6/12	6/12	6/12	6/12
4.2		Height, mast lowered	h <sub>1</sub> (in)	98.4	98.4	98.4	98.4	98.4	98.4
4.3		Free lift	h <sub>2</sub> (in)	6.3	6.3	6.3	6.3	6.3	6.5
4.4		Lift	h <sub>3</sub> (in)	118	118	118	118	118	118
4.5		Height, mast extended	h <sub>4</sub> (in)	174	173.5	174	173.5	174	173.5
4.7		Height of overhead guard	h <sub>6</sub> (in)	95.7	95.7	95.7	95.7	95.7	95.7
4.8		Seat height	h <sub>7</sub> (in)	53	53	53	53	53	53
4.1.2		Coupling height	h <sub>10</sub> (in)	17	17	17	17	17	17
4.1.9		Overall length	l <sub>1</sub> (in)	185	185	186	186	189	189
4.2.0		Length to face of forks	l <sub>2</sub> (in)	138	138	139	139	142	142
4.2.1		Overall width	b <sub>1</sub> (in)	78.5	80.7	78.5	80.7	78.5	80.7
4.2.2		Fork dimensions	s/e/l (in)	2.4x5.9x47.2	2.4x5.9x47.2	2.4x5.9x48	2.4x5.9x48	2.6x5.9x48	2.6x5.9x48
4.2.3		Fork carriage DIN 15173, class/type A, B		IV A	IV A	IV A	IV A	IV A	IV A
4.2.4		Fork-carriage width	b <sub>3</sub> (in)	67	67	67	67	67	67
4.3.1		Ground clearance, laden, mast	m <sub>1</sub> (in)	7.5	7.5	7.5	7.5	7.5	7.5
4.3.2		Ground clearance, centre of wheelbase	m <sub>2</sub> (in)	10.6	10.6	10.6	10.6	10.6	10.6
4.3.4.1		Aisle width for pallets 39.4"x47.3" crossways	A <sub>st</sub> (in)	198	198	200	200	203	203
4.3.4.2		Aisle width for pallets 31.5"x47.3" lengthways	A <sub>st</sub> (in)	206	206	208	208	211	211
4.3.5		Turning radius	W <sub>a</sub> (in)	127	127	129	129	132	132
4.3.6		Internal turning radius	b <sub>13</sub> (in)	48	48	48	48	48	48
Performance data	5.1	Travel speed, laden/unladen	mph	14.9/17.6	18.5/19.2	14.3/17.6	17.5/19.2	13.7/17.6	16.8/19.2
	5.2	Lift speed, laden/unladen	ft/min	80.7/88.6	85/91	80.7/88.6	85/91	70.9/78.7	75.2/85
	5.3	Lowering speed, laden/unladen	ft/min	94.5/82.7	95/83	94.5/82.7	95/83	94.5/82.7	95/83
	5.5	Drawbar pull,laden/unladen	ibf	14370/5710	14380/6110	14450/6000	14380/6310	14610/6180	14380/6510
	5.7	Gradeability, laden/unladen	%	48/20	58/20	43/20	50/20	36/20	44/20
	5.1.0	Service brake		Wet brake	Hydraulic	Wet brake	Hydraulic	Wet brake	Hydraulic
Combustion-engine	7.1	Engine manufacturer/type	Deutz TCD3.6 L4	PSI 4.3L(certified)	Deutz TCD3.6 L4	PSI 4.3L(certified)	Deutz TCD3.6 L4	PSI 4.3L(certified)	
		Emission standard	Tier 4 Final	EPA Tier2	Tier 4 Final	EPA Tier2	Tier 4 Final	EPA Tier2	
	7.2	Engine power according to DIN ISO 1585	HP	74	103	74	103	74	103
	7.3	Rated speed	r/min	2200	2300	2200	2300	2200	2300
	7.4	No. of cylinders/displacement	(-) / (in <sup>3</sup> )	4/220	6/263	4/220	6/263	4/220	6/263
Addition data	10.1	Operating pressure for attachments	bar	195	195	195	195	195	195
	10.2	Oil volume for attachments	l/min	120	120	120	120	120	120
	10.8	Towing coupling,type DIN 15170		Pin	Pin	Pin	Pin	Pin	Pin







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