



## XF Series LPG Pneumatic Tire Trucks

with capacities of 11,000 to 15,500lbs

*The World of Hangcha*



# Simple/ Solid/ Smart



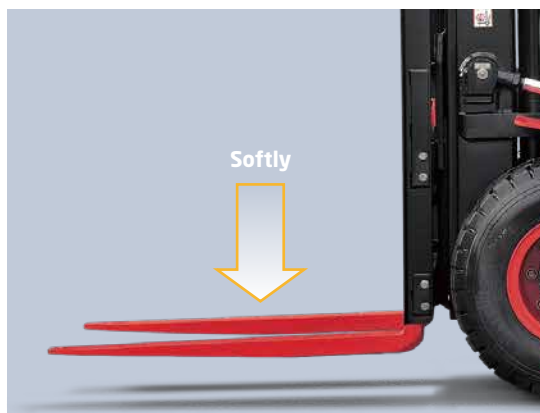
## Comfortable Operation

*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.*

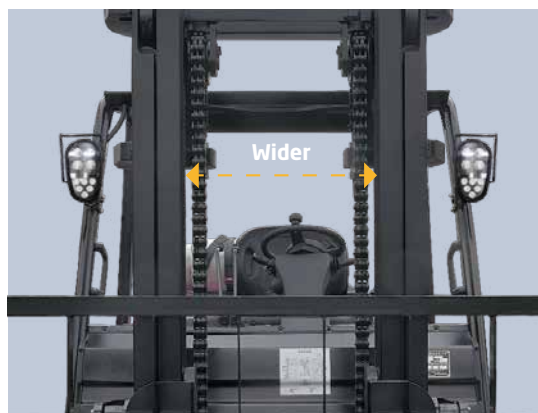


The extra foot space is provided to reduce operator fatigue significantly. The new wide-open, non-slip step makes getting in and out easy and safe.

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.



# Environmental Friendliness

Environmentally friendly material, low exhaust emission, and low noise level, all these are considered at the beginning of the product development.

Special developed engine is applied for optimum balance of power and superior environmental performance. The LPG engine is in compliance with EPA Tier2 control regulation.

The environment friendly materials, such as non-asbestos brake shoe and new type sealing gasket, are adopted entirely to meet environmental safety. And the noise level is reduced 3dB too.



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

## 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

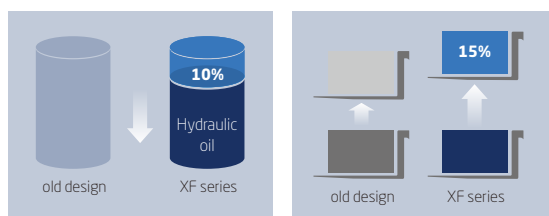
Thanks to the series technological innovations, the efficiency of the truck is improved, the energy consumption is reduced.



*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.

The rotating LPG bottle holder is easy to replace the bottle, reduces the downtime.

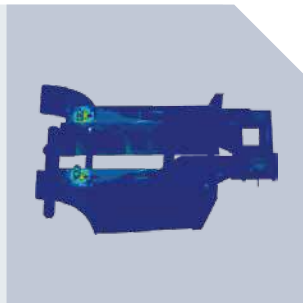
All the locations of the engine oil level dipstick, filter of hydraulic, water separator are easy to reach, and very easy for engineer to check.

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.



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



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 convertor and the chassis, the overhead guard and the chassis. And the suspension seat is another vibration reduction.



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 seat sensor 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> </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
<div><div>/ Traction device</div><div>/ Hand grip</div><div>/ Standard seat</div><div>/ Standard overhead guard</div><div>/ Waterproof cover on the guard</div><div>/ Back view mirror</div><div>/ Pneumatic tyres</div><div>/ Toolbox</div></div>	<div><div>/ Big capacity aluminum radiator</div><div>/ Whirlwind air cleaner</div><div>/ Safety filter</div><div>/ High-efficient intake muffler</div><div>/ High-efficient exhaust muffler</div></div>	<div><div>/ High-efficient front lights</div><div>/ High-efficient LED rear lights</div><div>/ Service-free start battery</div><div>/ Combination controller</div><div>/ LCD display</div><div>/ Neutual switch</div><div>/ Hour meter</div><div>/ Water temperature gauge</div></div>	<div><div>/ Pre-heat indicator</div><div>/ Charging indicator</div><div>/ Engine fuel pressure warning</div><div>/ Oil temperature</div><div>/ Horn</div><div>/ Reversing buzzer</div><div>/ Air-filter with jam sensor</div><div>/ Emergency power off</div></div>	<div><div>/ Standard wide view duplex mast</div><div>/ Standard forks</div><div>/ Standard fork carriage</div><div>/ Standard load back rest</div><div>/ Mast speed limiting valve</div><div>/ Load safety valve</div><div>/ Mast down buffer device</div><div>/ Mast up buffer device</div><div>/ Side roller</div></div>

# Options

Truck	Transmission	Power	Hydraulic	Electronics	Mast
<ul style="list-style-type: none"> <li>/ Cabin</li> <li>/ Cabin heater</li> <li>/ Front window</li> <li>/ Super elastic tyre</li> <li>/ Non-mark tyre(white/green)</li> <li>/ Suspension seat</li> <li>/ Extinguisher</li> <li>/ Special given 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>/ Japanese drum brake</li> <li>/ Wet brake</li> </ul>	<ul style="list-style-type: none"> <li>/ Upright exhaust system</li> <li>/ Air pre-cleaner</li> <li>/ Net cover of radiator</li> <li>/ Spark arrester</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>/ OBD</li> <li>/ Front working light</li> <li>/ Rear working light</li> <li>/ Warning lamp</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



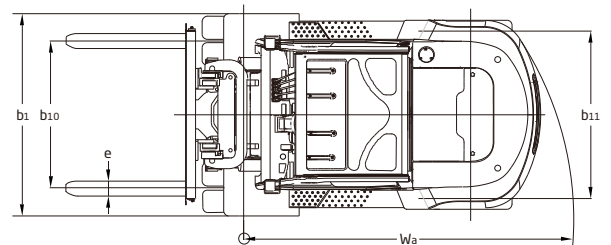
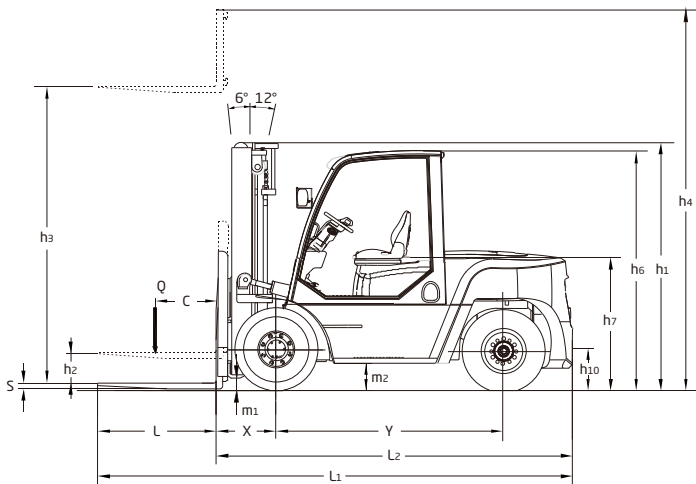
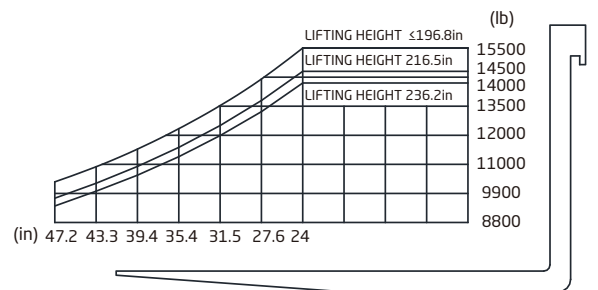


## XF series 11,000~15,500 lb forklift specification :

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.		
	1.2	Manufacturer's type designation		CPYD50-XW24	CPYD60-XW24	CPYD70-XW24
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		LPG	LPG	LPG
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		Sit down	Sit down	Sit down
	1.5	Rated capacity/rated load	Q (lb)	11000	13500	15500
	1.6	Load centre distance	c(in)	24	24	24
	1.8	Load distance, centre of drive axle to fork	x(in)	23.5	23.5	23.8
	1.9	Wheelbase	y(in)	90.5	90.5	90.5
Weight	2.1	Service weight	lb	17630	18800	20600
	2.2	Axle loading, laden front/rear	lb	24890/3770	28190/3830	32230/3700
	2.3	Axle loading, unladen front/rear	lb	8530/9100	8260/10530	8150/12340
Tyres, chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		Pneumatic	Pneumatic	Pneumatic
	3.2	Tyre size, front		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
	3.5	Wheels, number front rear (x = driven wheels)		4x/2	4x/2	4x/2
	3.6	Tread, front	b10 (in)	58.6	58.6	58.6
	3.7	Tread, rear	b11 (in)	66.9	66.9	66.9
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta(^{\circ})$	6/12	6/12	6/12
	4.2	Height, mast lowered	h1 (in)	98.4	98.4	98.4
	4.3	Free lift	h2 (in)	6.3	6.3	6.5
	4.4	Lift	h3 (in)	118	118	118
	4.5	Height, mast extended	h4 (in)	173.5	173.5	173.5
	4.7	Height of overhead guard	h6 (in)	95.7	95.7	95.7
	4.8	Seat height	h7 (in)	53	53	53
	4.12	Coupling height	h10 (in)	17	17	17
	4.19	Overall length	l1 (in)	185	186	189
	4.20	Length to face of forks	l2 (in)	138	139	142
	4.21	Overall width	b1(in)	80.7	80.7	80.7
	4.22	Fork dimensions	s/e/l (in)	2.4x5.9x47.2	2.4x5.9x47.2	2.6x5.9x47.2
	4.23	Fork carriage DIN 15173, class/type A, B		IV A	IV A	IV A
	4.24	Fork-carriage width	b3 (in)	67	67	67
	4.31	Ground clearance, laden, mast	m1 (in)	7.5	7.5	7.5
	4.32	Ground clearance, centre of wheelbase	m2 (in)	10.6	10.6	10.6
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast (in)	198	200	203
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	Ast (in)	206	208	211
	4.35	Turning radius	Wa (in)	127	129	132
	4.36	Internal turning radius	b13 (in)	48	48	48
Performance data	5.1	Travel speed, laden/unladen	mph	37/49.5	37/49.5	37/49.5
	5.2	Lift speed, laden/unladen	ft/min	85/91	85/91	75.2/85
	5.3	Lowering speed, laden/unladen	ft/min	96/69	96/69	96/69
	5.5	Drawbar pull,laden/unden	ibf	14380/6110	14380/6310	14380/6510
	5.7	Gradeability, laden/unladen	%	58/20	50/20	44/20
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
Combustion-engine	7.1	Engine manufacturer/type		PSI 4.3L(certified)	PSI 4.3L(certified)	PSI 4.3L(certified)
		Emission standard		EPA Tier2	EPA Tier2	EPA Tier2
	7.2	Engine power according to DIN ISO 1585	HP	103	103	103
	7.3	Rated speed	r/min	2300	2300	2300
	7.4	No. of cylinders/displacement	(-) / (in <sup>3</sup> )	6/263	6/263	6/263
Addition data	10.1	Operating pressure for attachments	bar	195	195	195
	10.2	Oil volume for attachments	l/min	120	120	120
	10.8	Towing coupling,type DIN 15170		Pin	Pin	Pin

## 11,000~15,500 lb XF series mast: (pneumatic)

Type	Model	Max. fork height	Overall height			Free lift		Load distance, centre of drive axle to fork	Tilt range	Capacity		
			Lowered	Extended		Without backrest	With backrest			Load capacity at 24 in		
				Without backrest	With backrest					Double tire		
										11000lb	13500lb	15500lb
		in	in	in	in	in	in	in	(°)	lb	lb	lb
Wide view mast	X50/70M330	129.9	104.3	169.1/175.9	185.3	6.3	6.3	23.5/23.8	6/12	11000	13500	15500
	X50/70M360	141.7	110.2	180.9/187.7	197.1	6.3	6.3	23.5/23.8	6/12	11000	13500	15500
	X50/70M400	157.5	118.1	196.7/203.4	213	6.3	6.3	23.5/23.8	6/12	11000	13500	15500
	X50/70M450	177.1	130	216.5/223.1	232.6	6.3	6.3	23.5/23.8	6/6	11000	13500	15500
	X50/70M500	196.9	139.8	236.2/242.8	252.2	6.3	6.3	23.5/23.8	6/6	11000	13500	15500
	X50/70M550	216.5	151.6	257.9/262.5	272	6.3	6.3	23.5/23.8	3/6	10400	12500	14500
	X50/70M600	236.2	161.4	277.5/282.1	291.6	6.3	6.3	23.5/23.8	3/6	9800	11900	14100
Wide view full free duplex mast	X50/70U300	118.1	96.5	155.7/162	162.9	58.9/52.6	51.7	24.5/25	6/12	11000	13500	15500
	X50/70U330	130	102.4	167.5/173.8	174.7	64.8/58.5	57.6	24.5/25	6/12	11000	13500	15500
	X50/70U360	141.7	108.3	179.3/185.6	186.5	70.7/64.4	63.5	24.5/25	6/12	11000	13500	15500
Wide view full free triplex mast	X50/70U400	157.5	116.1	195.1/201.4	202.2	78.5/72.2	71.4	24.5/25	6/12	11000	13500	15500
	X50/70N450	177.2	107.3	225.8	232.6	59	52.3	26.3/26.5	6/6	9900	12300	14000
	X50/70N480	189	111.2	237.6	244.4	63	56.2	26.3/26.5	6/6	9901	12300	13800
	X50/70N500	196.9	113.2	244.6	252.2	65.8	58.2	26.3/26.5	6/6	9902	12100	13800
	X50/70N550	216.5	121.1	267.1	272	70.9	66.1	26.3/26.5	3/6	9200	11400	6100
	X50/70N600	236.2	127	284.8	291.6	78.7	72	26.3/26.5	3/6	8800	11000	12100







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