

STAGE V
CERTIFIED



XF Series Diesel / Gasoline / LPG Counterbalanced Trucks

with capacities of 1,000 to 3,500kg



Kelvin Imports

Kelvin Engineering limited. Field view
business centre, Newchapel Road,
lingfield,Surrey, RH7 6LE

www.kelvinengineering.co.uk



Kelvin Engineering trucks
conform to the European
Safety Requirements

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Kelvin will be with you at every stage

Efficient, reliable solutions for your demands



GCT

Eco-friendly engines compliant with global emission regulations.

Global standard forklift engines with top-class of output and reliability performance.

ENGINE TYPE	Vertical Inline 4-cylinder • Water cooled • OHV
FUEL	Gasoline • LPG
FUEL SYSTEM	Electronic Controlled, Gasoline : Injector • LPG : Injector
EMISSION REGULATION	CARB SIP LSI-1/ EPA Tier2/ EU STAGE V



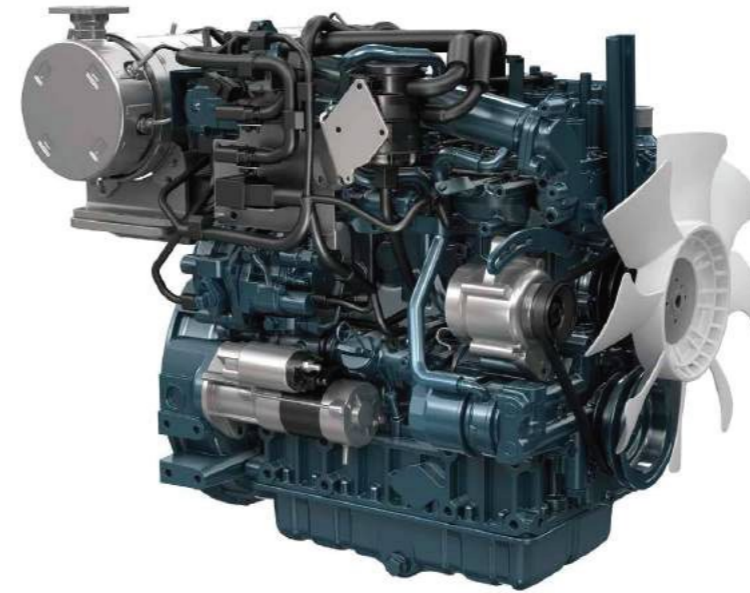
Interactive instrument: The instrument adopts 4.0-inch colour LCD display with four interactive buttons, and has one CAN bus communication function. The communication protocol is compatible with CANopen and SAE J1939 standards.

No.	Capacity	Series	Manufacturer	Engine	Drive power	Model	Emission Std.	Transmission	Power (kw/rpm)
1	1.0-1.75t	XF	GCT	GCT GK21LPG EU-StageV CERT	LPG	CPYD15/18-XH1F/B	Stage V	F/OKAMURA	38.4/2700
2	2.0-3.5t	XF	GCT	GCT GK25LPG EU-StageV CERT	LPG	CPYD20/25/30/35-XH3F/B	Stage V	F/OKAMURA	43.4/2700
3	1.5-1.75t	XF	GCT	GCT GK21 LPG 1G001 EK00	LPG	CPYD15/18-XH23F/B1	CARB SIP LSI-1/ EPA Tier2/ EU STAGE V	F/OKAMURA	43/2700
4	1.5-1.75t	XF	GCT	GCT GK21 DUAL 1G001 ECH00	DUAL LPG/GAS	CPQYD15/18-XH24F/B1		F/OKAMURA	43/2700 40/2700
5	2.0-3.5t	XF	GCT	GCT GK25 LPG 1G001 ELH00	LPG	CPYD20/25/30/35-XH21F/B1		F/OKAMURA	47/2700
6	2.0-3.5t	XF	GCT	GCT GK25 DUAL 1G001 EDH00	DUAL LPG/GAS	CPQYD20/25/30/35-XH22F/B1		F/OKAMURA	47/2700 44.5/2700

Note: Stage V applied for European Union also including Israel and Turkey
Tier4 Final applied for North American
F means full floating transmission

STAGE V & TIER 4F

With Kelvin you can meet all Stage V/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.



KUBOTA

• **Emissions Compliance**

Meeting rigid emissions regulations can be a challenge for any company. V2607-CR-E5B engines have been designed to comply with stringent regulations: EU StageV EPA/CARB Tier4 F.

• **Advanced DPF Technology**

• **Clean and Quiet Power**

• **Great Flexibility**



XINCHAI

No.	Capacity	Series	Manufacturer	Engine	Drive power	Model	Emission Std.	Transmission	Power (kw/rpm)
1	1.5-3.5t	XF	KUBOTA	V2607-CR-E5B	Diesel	CPCD15/18/20/25/30/35-XW97F	EU StageV EPA/CARB Tier4 F	F	37.4/2400
2	2.0-3.5t	XF	KUBOTA	V2607-CR-TE5B	Diesel	CPCD20/25/30/35-XW98F	EU StageV EPA/CARB Tier4 F	F	47.3/2400
3	1.5-1.75t	XF	XINCHAI	3E22YG51P464	Diesel	CPCD15/18/-XH7F	Stage V	F/OKAMURA	34/2400
4	2.0-3.5t	XF	XINCHAI	3E22YG51	Diesel	CPCD20/25/30/35-XH7F/B	Stage V	F/OKAMURA	44.8/2400

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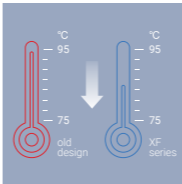
Productivity

Dynamic load sensing hydraulic steering system, Efficiency lighting system, lower fuel consumption, combine to provide increased productivity and reduced operating costs.

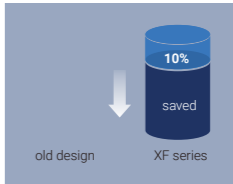
The new Dynamic load sensing hydraulic steering system contributes to reduce loss of hydraulic and improve energy efficiency.

The new efficiency lighting system employs LED illuminant and new type reflector to reduce energy consumption, improve significantly illumination performance and prolong work time.

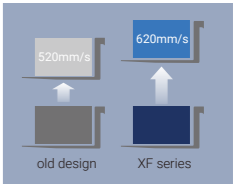
By optimizing transmission design, the power train provides higher efficiency. The fuel consumption is reduced by 10%.



Hydraulic oil balanced temperature (2.5T 4TNE98)



Fuel consumption



Speed at full load (2.5T 4TNE98)

Comfortable Operation



In developing the new XF Series, comfort and ease of operation is carefully considered, for example, to improve vibration levels, compound engine damper and full floating power train are adopted. Comfortable operating environments for operator also contribute to increased productivity.

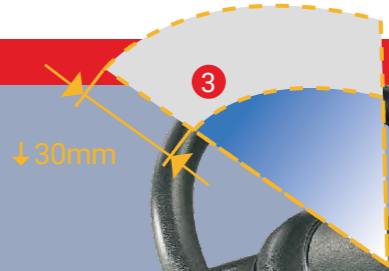


In addition to rubber damper between frames and steering axle, compound engine damper and full floating power train achieve flexible connection between frames and driving system, as a result, traveling vibrations and vibrations from the driving system are significantly reduced.



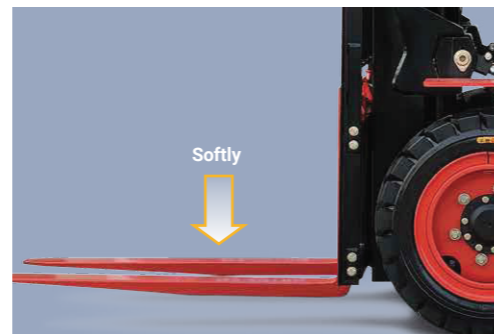
The enlarged capacity of optimized exhaust muffler, the intake muffler and the noise shield technologies provide significantly lower noise levels.

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. 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.
4. The parking brake is specially developed. The operational force is reduced by 30%.
5. The automobile-style suspended pedals provide more ergonomic operation.



Comfortable Operation

Optimal visibility in all directions create the best conditions for high productivity through relaxed and safe working.



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.

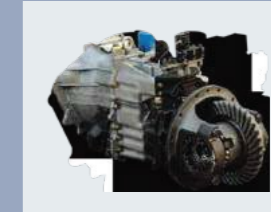


The developed front lifting cylinders with smaller outer diameter give the operator superior forward visibility.

The double lifting cylinders provide better forward visibility.

Reliability

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



The new aluminum alloy transmission with full floating structure features excellent heat dissipation capability, more and thicker disc meet the most demanding applications.



The new vehicle controller integrates all electrical components, features excellent durability for temperature, water and vibration for most demanding operation.



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.



XF series features rugged design, stamped frame and engine hood, stamped instrument panel and head guard, heavy profile rail mast combine to provide excellent rigidity, which ensures outstanding reliability even in heavy-duty work.



Extra capacity combined radiator with serpentine wave and optimized heat dissipation channel enhance the heat dissipation capability to keep engine reliability even in heavy-duty applications.

Easy Maintenance



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

The cover on the Panel can be lifted up simply to check the brake fluid.

The two-piece design makes the floorboard easy to lift and remove for access to the power train.

The easy-to-operate latch provides quick access to the engine compartment.

The fasteners of the radiator cover can be turned easily by hand to enable quick inspections or servicing.

Safety

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



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



An optional rear-pillar assist grip with a horn button enhances safety of operator while traveling in reverse.



1. The operator presence sensing 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"> / Suspended transmission / Oil filter / Dipstick / Oil cooler / Non-asbestos brake / MS transmission with wet brake 	<ul style="list-style-type: none"> / Full hydraulic power steering / Smaller diameter steering wheel / Adjuster of steering wheel 	<ul style="list-style-type: none"> / Skidproof pedal / Rubber pedal / Engine hood spring 	<ul style="list-style-type: none"> / Power steering / Suspension pedal / Integrated combination switch / Cable parking brake 	<ul style="list-style-type: none"> / Dynamic load sending control valve (Diesel IC) / Hydraulic oil filter / Tilt cylinder self-locking valve / Hydraulic oil dipstick
Truck	Power	Electronics	Mast	
<ul style="list-style-type: none"> / Traction device / Handhilds / Standard seat / Standard overhead guard / Waterproof cover on the guard / Back view mirror / Pneumatic tyres / Toolbox 	<ul style="list-style-type: none"> / Big capacity aluminum radiator / Little tank / Whirlwind air cleaner / Safety filter / High-efficient intake muffler / High-efficient exhaust muffler 	<ul style="list-style-type: none"> / High-efficient front lights / High-efficient LED rear lights / Service-free start battery / Combination controller / LCD display / Neutral switch / Time meter / Fuel gauge / Water temperature gauge / Pre-heat indicator / Charging indicator / Engine fuel pressure warning / Transmission oil pressure warning / Horn / Reversing buzzer / Power off 	<ul style="list-style-type: none"> / Standard wide view duplex mast / Standard forks / Standard fork carriage / Standard load back rest / Mast speed limiting valve / Load safety valve / Mast down buffer device / Mast up buffer device / Side roller 	

Options

Truck	Transmission	Power	Hydraulic	Electronics	Mast
<ul style="list-style-type: none"> / Cabin / Cabin heater / Front window / Super elastic tyre / No-mark tyre (white/green) / Suspension seat / Extinguisher / Cover of tilt cylinder / Heightening overhead guard / Reversing assist grip / Special given color / Seat with sensing system / Boot for tilt cylinder / Counter weight net 	<ul style="list-style-type: none"> / 2-D wheel 	<ul style="list-style-type: none"> / Dual fuel LPG system / Big capacity copper radiator / High-positioned exhaust system / Middle-positioned exhaust system / Air pre-cleaner / Net cover of radiator / Sparkle arrester / Purified exhaust system / Swivel LPG bottle support / Downward LPG bottle support / Fan protector 	<ul style="list-style-type: none"> / Auxiliary hydraulic valve / Electro-hydraulic proportional control system / Return oil filter 	<ul style="list-style-type: none"> / OBD / Front working light / Rear working light / Warning lamp / Oil-water seperator warning 	<ul style="list-style-type: none"> / Duplex wide view free-lift mast / Triplex wide view free-lift mast / Triplex wide view 4-cylinder free-lift mast / Special forks / Wider fork carriage / Wider load back rest

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 extensioener
- / Load release device
- / Carton clamp
- / Push-pull device
- / Bucket
- / Hook
- / Lengthened fork

