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ISO45001:2018



ISO14001:2015



ISO9001:2015



HANGCHA trucks conform
to the European Safety
Requirements.



XF SERIES

DIESEL / GASOLINE / LPG
COUNTERBALANCED TRUCKS

With capacities of 4,000 to 5,500kg

HANGCHA be with you at every stage

Efficient, reliable solutions for your demands

STAGE V & TIER 4F



With Hangcha 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.

HANGCHA Forklift with StageV and T4F

No.	Capacity	Series	Manufacturer	Engine	Drive power	Model	Emission Std.	Transmission	Power (kw/rpm)
1	4.0-5.5t	XF	KUBOTA	V3307-CR-TIE5B	Diesel	CPCD40/45-XW99BN,CPCD50/55-XXW99BN	Stage V / Tier4 final	OKAMURA	55.4/2200
2	4.0-5.5t	XF	KUBOTA	WG3800-L-E5C	LPG	CPYD40/45-XH11BN,CPYD50/55-XXH11BN	Stage V / EPA Tier 2 / CARB Tier 3	OKAMURA	61.6/2300
3	4.0-5.5t	XF	KUBOTA	WG3800-GL-E3C	GAS/LPG	CPQYD40/45-XH12BN,CPQYD50/55-XXH12BN	Stage V / EPA Tier 2 / CARB Tier 3	OKAMURA	GAS:54.4/2300 LPG:54.6/2300
4	4.0-5.5t	XF	XINCHAI	4E30YG52	Diesel	CPCD40/45-XH8BN,CPCD50/55-XXH8BN	Stage V	OKAMURA	55.8/2200
5	4.0-5.5t	XF	PSI	PSI 4.3	LPG	CPYD40/45-XH20BN,CPYD50/55-XXH20BN	Stage V	CHINA	79.75/2300

Note: Stage V applied for European Union also including Israel and Turkey
Tier4 Final applied for North American

RELIABILITY

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



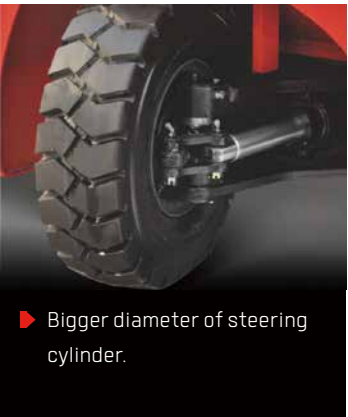
► XF series truck just equip with Okamura transmission. Brake drum and hub adopt monolithic construction.



► 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.



► 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.



► Bigger diameter of steering cylinder.

PRODUCTIVITY

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



► 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.



► 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.

COMFORTABLE OPERATION

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

SOFTLY



- ▶ 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.

WIDER



- ▶ The developed front lifting cylinders with smaller outer diameter give the operator superior forward visibility. The double front lifting cylinders provide better forward visibility.

WIDER 90%



- ▶ 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.

Comfortable operating environments for operator also contribute to increased productivity.



- ▶ The new, relocated easy-to-see LCD meter lets the operator check on all aspects of operational status at a glance.



- ▶ The new automobile-style light/turn-signal lever and forward-reverse lever are ergonomically designed and arranged to improve comfort and productivity.



- ▶ 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.



- ▶ The parking brake is specially developed. The operational force is reduced by 30%.



- ▶ The automobile-style suspended pedals provide more ergonomic 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.



- ▶ 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.





SAFETY

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

EASY MAINTENANCE

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



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



CUMMINS engine use the special air filter, it can reduce air intake resistance dramatically, equipped with pressure alarm to master the maintaining time.



- ▶ The cover on the Panel can be lifted up simply to check the brake fluid.
- ▶ The easy-to-operate latch provides quick access to the engine compartment.
- ▶ The two-piece design makes the floorboard easy to lift and remove for access to the power train.
- ▶ The fasteners of the radiator cover can be turned easily by hand to enable quick inspections or servicing.



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



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



- ▶ 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.
- ▶ A throttling device is adopted to avoid the mast being out of control even some pipes are broken.



Features

Truck	Standard	Options
Traction device	●	
Hand grip	●	
Standard seat	●	
Standard overhead guard	●	
Waterproof cover on the guard	●	
Back view mirror	●	
Pneumatic tyres	●	
Counterweight net	●	
Fan protector	●	
Big capacity aluminum radiator	●	
Whirlwind air cleaner	●	
Safety filter	●	
High-efficient intake muffler	●	
High-efficient exhaust muffl	●	
Upright exhaust pipe	●	
Cabin		○
Cabin heater		○
Front window		○
Super elastic tyre		○
Non-mark tyre(white/green)		○
Suspension seat		○
Extinguisher		○
Cover of tilt cylinder		○
Heightening overhead guard		○
Reversing assist grip		○
Customer painting		○
OPS[Operator Presence Sensing system]		○
Boot for tilt cylinder		○
Additional counterweight		○
Toolbox		○
Steering		
Full hydraulic power steering	●	
Smaller diameter steering wheel	●	
Adjuster of steering wheel	●	
Chassiss		
Anti-slip pedal	●	
Rubber pedal	●	
Engine hood spring	●	
Control		
Power steering	●	
Suspension pedal	●	
Integrated combination switch	●	
Cable parking brake	●	
Hydraulic		
Dynamic load sending control valve (Diesel IC)	●	
Hydraulic oil filter	●	
Tilt cylinder self-lock valve	●	
Hydraulic oil dipstick	●	
Dual pump	●	
Electro-hydraulic proportional control system		○
Return oil filter		○
Transmission		
Suspension transmission	●	
Oil filter	●	
Dipstick	●	
Oil cooler	●	
Non-asbesttos bake	●	
Wet brake (Only for BN)	●	
OKAMURA transmission	●	
Dual driving tyre		○
Solid tyre		○

Electronics	Standard	Options
High-efficient front lights	●	
High-efficient LED rear lights	●	
Maintenance-free battery	●	
Combination controller	●	
LCD display	●	
Neutual switch	●	
Hour meter	●	
Fuel gauge	●	
Water temperature gauge	●	
Pre-heat indicator	●	
Charging indicator	●	
Oilpressure warning	●	
Transmission oil pressure warning	●	
Horn	●	
Reversing buzzer	●	
OBD		○
Front working light		○
Rear working light		○
Warning lamp		○
Speed meter		○
Over-speed alarm		○
LED working light		○
Mast		
Standard wide view duplex mast	●	
Standard forks	●	
Standard fork carriage	●	
Standard load backrest	●	
Mast speed limiting valve	●	
Loading relieve valve	●	
Softlanding system	●	
Softlifting system	●	
Side roller	●	
Duplex wide view free-lift mast		○
Triplex wide view free-lift mast		○
Triplex wide view 4-cylinder free-lift mast (except 4.5t model)		○
Special forks		○
Wider fork carriage		○
Widerload back rest		○
Power		
DualfuelLPG system		○
Big capacity copper radiator		○
Upright exhaust system		○
Middle-positioned exhaust system		○
Dual air filter		○
Net cover of radiator		○
Sparkle arrester		○
Purified exhaust system		○
Swivel LPG bottle support		○
Downward LPG bottle support		○
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		○

Technical data

Distinguishing mark	1.1	Manufacturer														
	1.2	Manufacturer's type designation														
	1.3	Drive: electric [battery or mains], diesel, petrol, fuel gas														
	1.4	Operated type [Hand, Pedestrian, Standing, Seating, Order-Picking]														
	1.5	Rated capacity /rated load	Q (kg)	4000[3500]	4500[4000]	5000[4500]	5500[5000]	4000[3500]	4500[4000]	5000[4500]	5500[5000]	4000[3500]	4500[4000]	5000[4500]	5500[5000]	
	1.6	Load centre distance	c (mm)	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]	500[600]
	1.8	Load distance, centre of drive axle to fork	x (mm)	550	550	550	550	550	550	550	550	550	550	550	550	550
		Rear overhang	mm	535	565	560	595	535	565	560	595	535	565	560	595	595
Weight	1.9	Wheelbase	y (mm)	2000	2000	2150	2150	2000	2000	2150	2150	2000	2000	2150	2150	
	2.1	Service Weight	kg	6500	6700	6850	7250	6350	6550	6700	7100	6350	6550	6700	7100	
	2.2	Axle loading, laden front/rear	kg	9120/1380	9825/1375	10450/1400	11500/1250	8970/1380	9675/1375	10300/1400	11350/1250	8970/1380	9675/1375	10300/1400	11350/1250	
Tyres, chassis		Counter weight	kg	2125	2315	2450	2780	2125	2315	2450	2780	2125	2315	2450	2780	
	2.3	Axle loading, unladen front/rear	kg	3020/3480	3020/3680	3020/3830	3300/3950	2870/3480	2870/3680	2870/3830	3150/3950	2870/3480	2870/3680	2870/3830	3150/3950	
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	
	3.2	Type size, front		8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR	8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR	8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR	
	3.3	Tyre size, rear		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	
	3.6	Tread, front	b10 (mm)	1173	1203	1203	1203	1173	1203	1203	1203	1173	1203	1203	1203	
	3.7	Tread, rear	b11 (mm)	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	
	Dimensions	4.1	Tilt of mast/fork carriage forward/backward	a/b[°]	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12
4.2		Height, mast lowered	h1 (mm)	2245	2245	2245	2495	2245	2245	2245	2495	2245	2245	2245	2495	
4.3		Free lift	h2 (mm)	160	160	160	160	160	160	160	160	160	160	160	160	
4.4		Lift	h3 (mm)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	
4.5		Height, mast extended	h4 (mm)	4170	4170	4365	4395	4170	4170	4365	4395	4170	4170	4365	4395	
4.7		Height of overhead guard	h6 (mm)	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270	
4.8		Seat height/stand height	mm	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306	
4.12		Coupling height	mm	450	450	450	450	450	450	450	450	450	450	450	450	
4.19		Overall length	mm	4155	4180	4335	4530	4155	4180	4335	4530	4155	4180	4335	4530	
4.20		Length to face of forks	l2 (mm)	3085	3110	3265	3330	3085	3110	3265	3330	3085	3110	3265	3330	
4.21		Overall width	b1 (mm)	1420	1503	1503	1420	1503	1503	1503	1420	1503	1503	1503	1503	
4.22		Fork dimensions ISO 2331	s/e/l (mm)	50x122x1070	50x150x1070	50x150x1070	60x150x1200	50x122x1070	50x150x1070	50x150x1070	60x150x1200	50x122x1070	50x150x1070	50x150x1070	60x150x1200	
4.24		Fork carriage width		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	
4.25		Distance between fork-arms	bs (mm)	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	
4.31		Ground clearance, laden, below mast	m1 (mm)	150	150	150	150	150	150	150	150	150	150	150	150	
4.32		Ground clearance, centre of wheelbase	m2 (mm)	230	230	230	230	230	230	230	230	230	230	230	230	
4.34.1		Aisle width for pallets 1000 x 1200 crossways	mm	4440	4470	4630	4690	4440	4470	4630	4690	4440	4470	4630	4690	
4.34.2		Aisle width for pallets 800 x 1200 lengthways	mm	4640	4670	4830	4890	4640	4670	4830	4890	4640	4670	4830	4890	
4.35		Turning radius	Wa (mm)	2690	2720	2875	2905	2690	2720	2875	2905	2690	2720	2875	2905	
4.36	Internal turning radius	b13 (mm)	845	845	873	873	845	845	873	873	845	845	873	873		
	Min. right angle stacking aisle width[Ast]	mm	3240	3270	3430	3490	3240	3270	3430	3490	3240	3270	3430	3490		
Performance data	5.1	Travel speed, laden/unladen	km/h	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	
	5.2	Lift speed, laden/unladen	m/s	0.46/0.48	0.46/0.48	0.40/0.42	0.40/0.42	0.50/0.52	0.50/0.52	0.43/0.45	0.43/0.45	0.50/0.52	0.50/0.52	0.43/0.45	0.43/0.45	
	5.3	Lowering speed, laden/unladen	m/s	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	
	5.5	Drawbar pull, laden/unladen	N	38000/21000	38000/21000	38000/21000	38000/21000	38500/21000	38500/21000	38500/21000	38500/21000	38500/21000	38500/21000	38500/21000	38500/21000	
Combustion-engine	5.7	Gradeability, laden/unladen*	%	30/23	28/23	26/20	25/20	30/23	28/23	26/20	25/20	24/23	23/23	22/20	21/20	
	7.1	Engine manufacturer /type		PSI-4.3L	PSI-4.3L	PSI-4.3L	PSI-4.3L	KUBOTA V3307-CR-TIE5B		KUBOTA V3307-CR-TIE5B		XINCHAI 4E30YG52		XINCHAI 4E30YG52		XINCHAI 4E30YG52
		Emission STD						EU StageV/EPA Tier4 F		EU StageV/EPA Tier4 F		EU StageV		EU StageV		EU StageV
	7.2	Engine power according to DIN ISO 1585	kw	77	77	77	77	54.6	54.6	54.6	54.6	55.8	55.8	55.8	55.8	
	7.3	Rated speed	min	2300	2300	2300	2300	2200	2200	2200	2200	2200	2200	2200	2200	
	7.4	Number of cylinders/displacement	[-]/[cm³]	6/4294	6/4294	6/4294	6/4294	4/3331	4/3331	4/3331	4/3331	4/2969	4/2969	4/2969	4/2969	
	7.10	Battery voltage/nominal capacity	V/Ah	12/60	12/60	12/60	12/60	12/105	12/105	12/105	12/105	12/105	12/105	12/105	12/105	
		Rated torque	N·m/r/min	332.85/1400	332.85/1400	332.85/1400	332.85/1400	330/1400	330/1400	330/1400	330/1400	320/1200-1600	320/1200-1600	320/1200-1600	320/1200-1600	
		Transmissions Manufacturer		OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA	
		Stage FWD/RVS		2/1	2/1	2/1	2/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	
Addition data		Bore • stroke	mm•mm	101.6x88.39	101.6x88.39	101.6x88.39	101.6x88.39	94x120	94x120	94x120	94x120	94x107	94x107	94x107	94x107	
		Transmissions Type		Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	
	10.1	Operating pressure for attachments	bar	190	190	190	190	190	190	190	190	190	190	190	190	
	10.4	Fuel tank capacity	liter	80	80	90	90	80	80	90	90	80	80	90	90	

Optional Engine / Transmission

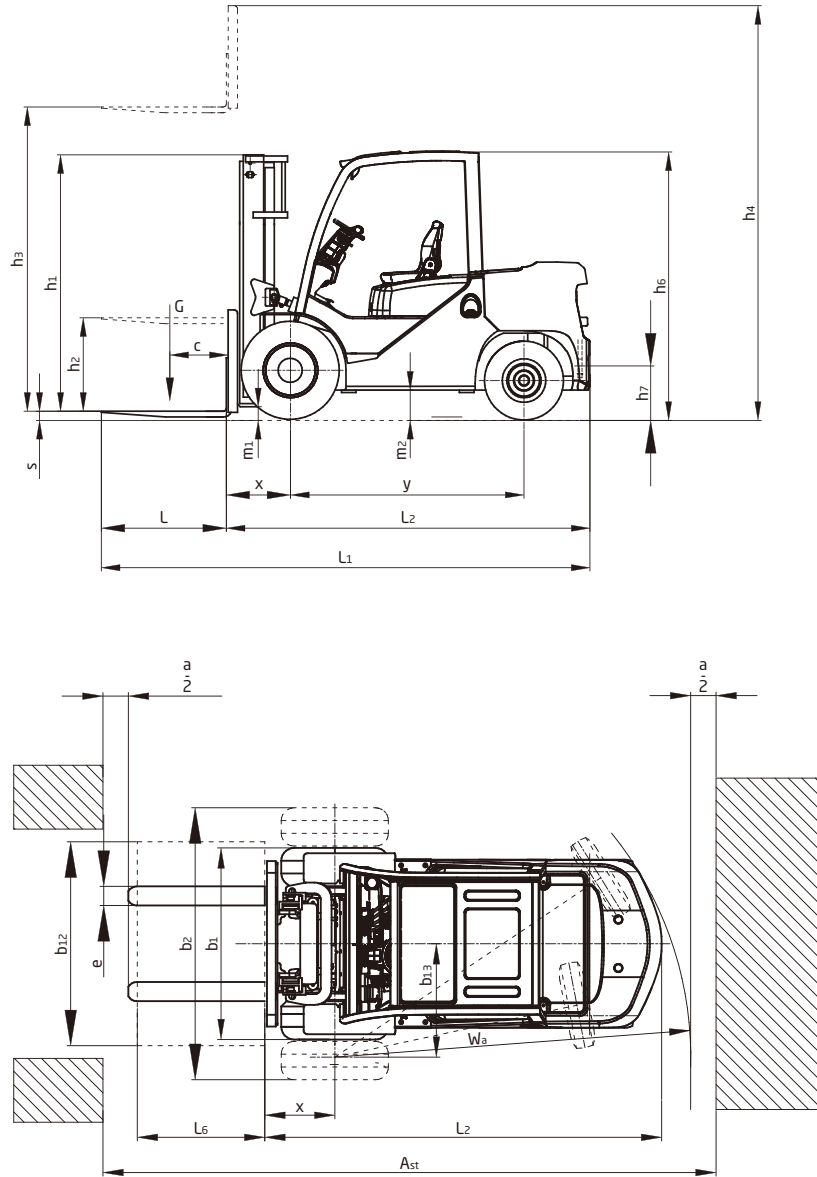
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Technical data

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.													
	1.2	Manufacturer's type designation		CPYD40-XH11BN	CPYD45-XH11BN	CPYD50-XXH11BN	CPYD55-XXH11BN	CPQYD40-XH12BN	CPQYD45-XH12BN	CPQYD50-XXH12BN	CPQYD55-XXH12BN	CPYD40-XH20BN	CPYD45-XH20BN	CPYD50-XXH20BN	CPYD55-XXH20BN		
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		LPG	LPG	LPG	LPG	GAS/LPG	GAS/LPG	GAS/LPG	GAS/LPG	LPG	LPG	LPG	LPG		
	1.4	Operated type (Hand, Pedestrian, Standing, Seating, Order-Picking)		Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated		
	1.5	Rated capacity/ rated load	Q (kg)	4000(3500)	4500(4000)	5000(4500)	5500(5000)	4000(3500)	4500(4000)	5000(4500)	5500(5000)	4000(3500)	4500(4000)	5000(4500)	5500(5000)		
	1.6	Load centre distance	c (mm)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)	500(600)		
Weight	1.8	Load distance, centre of drive axle to fork	x (mm)	550	550	555	555	550	550	555	555	550	550	555	555		
		Rear overhang	mm	535	565	560	595	535	565	560	595	535	565	560	595		
	1.9	Wheelbase	y (mm)	2000	2000	2150	2150	2000	2000	2150	2150	2000	2000	2150	2150		
	2.1	Service Weight	kg	6350	6550	6700	7100	6350	6550	6700	7100	6350	6550	6700	7100		
	2.2	Axle loading, laden front/rear	kg	8970/1380	9675/1375	10300/1400	11350/1250	8970/1380	9675/1375	10300/1400	11350/1250	8970/1380	9675/1375	10300/1400	11350/1250		
		Counter weight	kg	2125	2315	2450	2780	2125	2315	2450	2780	2125	2315	2450	2780		
Tyres, chassis	2.3	Axle loading, unladen front/rear	kg	2870/3480	2870/3680	2870/3830	3150/3950	2870/3480	2870/3680	2870/3830	3150/3950	2870/3480	2870/3680	2870/3830	3150/3950		
	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic		
	3.2	Tyre size, front		8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR	8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR	8.25-15-14PR	300-15-18PR	300-15-18PR	300-15-18PR		
	3.3	Tyre size, rear		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR		
	3.6	Tread, front	b10 (mm)	1173	1203	1203	1203	1173	1203	1203	1203	1173	1203	1203	1203		
	3.7	Tread, rear	b11 (mm)	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130		
Dimensions	4.1	Tilt of mast/ fork carriage forward/backward	a/b(°)	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12		
	4.2	Height, mast lowered	h1 (mm)	2245	2245	2245	2495	2245	2245	2245	2245	2245	2245	2245	2495		
	4.3	Free lift	h2 (mm)	160	160	160	160	160	160	160	160	160	160	160	160		
	4.4	Lift	h3 (mm)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000		
	4.5	Height, mast extended	h4 (mm)	4170	4170	4365	4395	4170	4170	4365	4395	4170	4170	4365	4395		
	4.7	Height of overhead guard	h6 (mm)	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270	2270		
	4.8	Seat height/stand height	mm	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306		
	4.12	Coupling height	mm	450	450	450	450	450	450	450	450	450	450	450	450		
	4.19	Overall length	mm	4155	4180	4335	4530	4155	4180	4335	4530	4155	4180	4335	4530		
	4.20	Length to face of forks	l2 (mm)	3085	3110	3265	3330	3085	3110	3265	3330	3085	3110	3265	3330		
	4.21	Overall width	b1 (mm)	1420	1503	1503	1503	1420	1503	1503	1503	1420	1503	1503	1503		
	4.22	Fork dimensions ISO 2331	s/e/l (mm)	50x122x1070	50x150x1070	50x150x1070	60x150x1200	50x122x1070	50x150x1070	50x150x1070	60x150x1200	50x122x1070	50x150x1070	50x150x1070	60x150x1200		
	4.24	Fork carriage width		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250		
	4.25	Distance between fork-arms	b5 (mm)	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200	310-1200		
	4.31	Ground clearance, laden, below mast	m1 (mm)	150	150	150	150	150	150	150	150	150	150	150	150		
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	230	230	230	230	230	230	230	230	230	230	230	230		
Performance data	4.34.1	Aisle width for pallets 1000 x 1200 crossways	mm	4440	4470	4630	4690	4440	4470	4630	4690	4440	4470	4630	4690		
	4.34.2	Aisle width for pallets 800 x 1200 lengthways	mm	4640	4670	4830	4890	4640	4670	4830	4890	4640	4670	4830	4890		
	4.35	Turning radius	Wa (mm)	2690	2720	2875	2905	2690	2720	2875	2905	2690	2720	2875	2905		
	4.36	Internal turning radius	b13 (mm)	845	845	873	873	845	845	873	873	845	845	873	873		
		Min. right angle stacking aisle width[Ast]	mm	3240	3270	3430	3490	3240	3270	3430	3490	3240	3270	3430	3490		
	5.1	Travel speed, laden/unladen	km/h	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24		
Combustion-engine	5.2	Lift speed, laden/unladen	m/s	0.50/0.52	0.50/0.52	0.46/0.48	0.46/0.48	0.50/0.52	0.50/0.52	0.46/0.48	0.46/0.48	0.50/0.52	0.50/0.52	0.46/0.48	0.46/0.48		
	5.3	Lowering speed, laden/unladen	m/s	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50	0.45/0.50		
	5.5	Drawbar pull, laden/unladen	N	38600/21000	38600/21000	38600/21000	38600/21000	36500/21000	36500/21000	36500/21000	36500/21000	38000/21000	38000/21000	38000/21000	38000/21000		
	5.7	Gradeability, laden/unladen*	%	30/23	28/23	26/20	25/20	24/23	23/23	22/20	21/20	30/23	28/23	26/20	25/20		
	7.1	Engine manufacturer /type		KUBOTA WG3800-L-E5C			KUBOTA WG3800-L-E5C			KUBOTA WG3800-GL-E3C			PSI 4.3	PSI 4.3	PSI 4.3		
		Emission STD		EU StageV EPA Tier 2/CARB Tier 3			EU StageV EPA Tier 2/CARB Tier 3			EU StageV EPA Tier 2/CARB Tier 3			EU StageV	EU StageV	EU StageV		
Addition data	7.2	Engine power according to DIN ISO 1585	kw	61.6	61.6	61.6	61.6	GAS:54.4/LPG:54.6		GAS:54.4/LPG:54.6		GAS:54.4/LPG:54.6		79.75	79.75		
	7.3	Rated speed	min	2300	2300	2300	2300	2300		2300		2300		2300	2300		
	7.4	Number of cylinders /displacement	(-)/[cm³]	4/3769	4/3769	4/3769	4/3769	4/3769		4/3769		4/3769		6/4294	6/4294		
	7.10	Battery voltage/nominal capacity	V/Ah	12/90	12/90	12/90	12/90	12/90		12/90		12/90		12/60	12/60		
		Rated torque	N·m/r/min	282.4/1200	282.4/1200	282.4/1200	282.4/1200	GAS:248.5/1400/LPG:273.1/1200						332.5/2000	332.5/2000	332.5/2000	332.5/2000
		Transmissions Manufacturer		OKAMURA	OKAMURA	OKAMURA	OKAMURA	OKAMURA		OKAMURA		OKAMURA		OKAMURA	OKAMURA	OKAMURA	
	Stage FWD/RVS		1/1	1/1	1/1	1/1	1/1		1/1		1/1		1/1	1/1	1/1		
	Bore × stroke	mm×mm	100x120	100x120	100x120	100x120	100x120		100x120		100x120		101.6x88.39	101.6x88.39	101.6x88.39		
	Transmissions Type		Powershift	Powershift	Powershift	Powershift	Powershift		Powershift		Powershift		Powershift	Powershift	Powershift		
	10.1	Operating pressure for attachments	bar	190	190	190	190	190		190		190		190	190		
	10.4	Fuel tank capacity	liter	80	80	90	90	80		90		80		80	90		

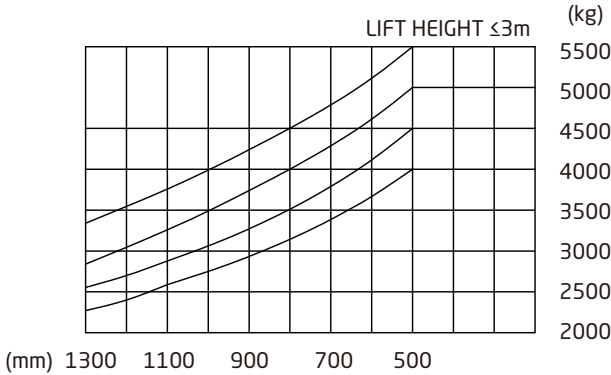
Optional Engine / Transmission

Engine	Engine manufacturer/type		CUMMINS QSF2.8	PSI 4.3L	MITSUBISHI SPC-S6S-239-1	PSI 4.3 L LPG	KUBOTA V3307-CR-TIE5B	XINCHAI 4E30V652	KUBOTA WG3800-L-E5C	KUBOTA WG3800-GL-E3C	PSI 4.3
	Manufacturer's type designation			W57	W76	W68	W99	H8	H11	H12	H20
	Drive		Diesel	DUAL FUEL/LPG	Diesel	LPG	Diesel	Diesel	LPG	GAS/LPG	LPG
	Emission STD		EU StageIII B/T4F	--	EU StageIIIA	--	EU StageV EPA Tier4 F	EU StageV	EU StageV EPA Tier 2/CARB Tier 3	EU StageV EPA Tier 2/CARB Tier 3	EU StageV
	Engine power	kW/r/min	55/2200	LP:77/2300 G:76/2300	52/2300	77/2300	54.6/2200	55.8/2200	61.6/2300	GAS:54.4/2300 LPG:54.6/2300	79.75/2300
	Rated torque	N·m/r/min	300/1600	LPG:332.85/1400 G:318/2300	248/1700	332.85/1400	330/1400	320/1200 ~ 1600	282.4/1200	GAS:248.5/1400 LPG:273.1/1200	332.5/2000
	Number of cylinders/displacement	ml	4/2800	6/4294	6/4966	6/4294	4/3331	4/2969	4/3769	4/3769	6/4294
	Transmission	Transmissions Type		Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift
Transmissions Manufacturer		OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]	OKAMURA[JAPAN]		
Rated capacity/ rated load		Q (kg)	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	4000[3500]-5500[5000]	



$A_{st} = W_a + x + L_6 + a; a = 200$

applies only if $\frac{b_{12}}{2} \leq b_{13}$



4.0-4.5t XF series mast: (pneumatic)

Type	Model	Max. fork height	Overall height				Free lift		Front Overhang	Tilt range		Capacity			
			Lowered	Extended		Without backrest	With backrest	FWD		BWD	Load capacity at 500mm				
				Without backrest	With backrest						Single tire		Dual tire		
											4.0t	4.5t	4.0t	4.5t	
		mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	kg	kg		
Wide view mast	X45M250	2500	1995	3330	3670	160	160	550	6	12	4000	4500	4000	4500	
	X45M270	2700	2095	3530	3870	160	160	550	6	12	4000	4500	4000	4500	
	X45M300	3000	2245	3830	4170	160	160	550	6	12	4000	4500	4000	4500	
	X45M330	3300	2395	4130	4470	160	160	550	6	12	4000	4500	4000	4500	
	X45M350	3500	2495	4330	4670	160	160	550	6	12	4000	4500	4000	4500	
	X45M360	3600	2545	4430	4770	160	160	550	6	12	4000	4500	4000	4500	
	X45M370	3700	2595	4530	4870	160	160	550	6	12	4000	4500	4000	4500	
	X45M380	3800	2645	4645	4970	160	160	550	6	12	4000	4500	4000	4500	
	X45M400	4000	2795	4945	5170	160	160	550	6	12	4000	4500	4000	4500	
	X45M430	4300	2960	5210	5470	160	160	550	6	6	4000	4500	4000	4500	
	X45M450	4500	3070	5420	5670	160	160	550	6	6	4000	4500	4000	4500	
	X45M480	4800	3235	5635	5970	160	160	550	6	6	3850	4300	3900	4400	
	X45M500	5000	3345	5845	6170	160	160	550	6	6	3800	4000	3850	4200	
	X45M550	5500	3620	6370	6670	160	160	550	3	6	3000	3500	3200	3800	
X45M600	6000	3895	6895	7170	160	160	550	3	6	2500	3000	2800	3100		
Wide view full free duplex mast	X45U250	2500	1976	3330	3670	1146	806	557	6	12	4000	4500	4000	4500	
	X45U275	2750	2100	3580	3920	1270	930	557	6	12	4000	4500	4000	4500	
	X45U300	3000	2226	3830	4170	1396	1056	557	6	12	4000	4500	4000	4500	
	X45U330	3300	2376	4130	4470	1546	1206	557	6	12	4000	4500	4000	4500	
	X45U350	3500	2476	4330	4670	1646	1306	557	6	12	4000	4500	4000	4500	
	X45U360	3600	2526	4430	4770	1696	1356	557	6	12	4000	4500	4000	4500	
	X45U370	3700	2576	4530	4870	1746	1406	557	6	12	4000	4500	4000	4500	
Wide view full free triplex mast	X45N400	4000	2080	4850	5170	1229	912	603	6	6	4000	4500	4000	4500	
	X45N430	4300	2180	5150	5470	1329	1012	603	6	6	4000	4500	4000	4500	
	X45N450	4500	2248	5350	5670	1395	1080	603	6	6	3800	4400	4000	4500	
	X45N470	4700	2310	5550	5870	1459	1142	603	6	6	3700	4300	3800	4400	
	X45N480	4800	2340	5650	5970	1489	1172	603	6	6	3700	4200	3800	4300	
	X45N500	5000	2410	5850	6170	1559	1242	603	6	6	3600	3800	3700	4200	
	X45N550	5500	2575	6350	6670	1724	1408	603	3	6	3000	3400	3200	3800	
	X45N600	6000	2790	6850	7170	1939	1622	603	3	6	2500	2800	2800	3100	
	X45N650	6500	2980	7350	7670	2129	1812	603	3	6	/	/	2400	2500	
X45N700	7000	3155	7850	8170	2304	1988	603	3	6	/	/	2000	2200		

With sideshifter minus 200kg, with integral sideshifter minus 100kg.

5.0-5.5t XF series mast: (pneumatic)

Type	Model	Max. fork height	Overall height								Free lift				Front Overhang		Tilt range		Capacity				
			Lowered	Extended				Without backrest		With backrest		Without backrest		With backrest					Load capacity at 500mm				
																			Single tire				Dual tire
				mm		5.0t										5.5t		5.0t		5.5t		5.0t	
mm		5.0t	5.5t	5.0t	5.5t	5.0t	5.5t	5.0t	5.5t	5.0t	5.5t	5.0t	5.5t	mm	mm	(°)	(°)	kg	kg	kg	kg		
Wide view mast	XX50/XX55M250	2500	1995	2245	3325	3600	3865	3895	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M270	2700	2095	2345	3525	3800	4065	4095	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M300	3000	2245	2495	3825	4100	4365	4395	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M330	3300	2395	2645	4125	4400	4665	4695	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M350	3500	2495	2745	4325	4600	4865	4895	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M360	3600	2545	2795	4425	4700	4965	4995	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M370	3700	2595	2845	4525	4800	5065	5095	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M380	3800	2645	2895	4645	4900	5165	5195	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M400	4000	2795	2995	4945	5145	5365	5395	160	170	160	170	550	585	6	12	5000	5500	5000	5500			
	XX50/XX55M430	4300	2960	3145	5210	5400	5665	5695	160	170	160	170	550	585	6	6	4750	5150	5000	5400			
	XX50/XX55M450	4500	3070	3245	5420	5600	5865	5895	160	170	160	170	550	585	6	6	4700	5000	4800	5200			
	XX50/XX55M480	4800	3235	3445	5635	5900	6165	6195	160	170	160	170	550	585	6	6	4400	4650	4600	4750			
	XX50/XX55M500	5000	3345	3560	5845	6100	6365	6395	160	170	160	170	550	585	6	6	4100	4400	4300	4600			
	XX50/XX55M550	5500	3620	3820	6370	6600	6865	6895	160	170	160	170	550	585	3	6	3600	4050	4000	4300			
XX50/XX55M600	6000	3895	4085	6895	7100	7365	7395	160	170	160	170	550	585	3	6	3100	3150	3300	3350				
Wide view full free duplex mast	XX50/XX55U250	2500	1976	2226	3360	3865	3600	3895	1114	1126	610	831	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U275	2750	2100	2350	3610	4115	3850	4145	1238	1250	735	955	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U300	3000	2226	2476	3860	4365	4100	4395	1364	1376	860	1081	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U330	3300	2376	2626	4160	4665	4400	4695	1514	1526	1010	1231	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U350	3500	2476	2726	4360	4865	4600	4895	1614	1626	1110	1331	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U360	3600	2526	2776	4460	4965	4700	4995	1664	1676	1160	1381	560	610	6	12	5000	5500	5000	5500			
	XX50/XX55U370	3700	2576	2826	4560	5065	4800	5095	1714	1726	1210	1431	560	610	6	12	5000	5500	5000	5500			
Wide view full free triplex mast	XX50/XX55N400	4000	2080	2305	4855	4975	5365	5395	1222	1330	715	910	600	645	6	6	5000	5500	5000	5500			
	XX50/XX55N430	4300	2180	2405	5155	5275	5665	5695	1322	1430	815	1010	600	645	6	6	4700	5000	4800	5200			
	XX50/XX55N450	4500	2248	2470	5355	5475	5865	5895	1390	1495	883	1075	600	645	6	6	4600	4750	4700	4900			
	XX50/XX55N470	4700	2310	2535	5555	5675	6065	6095	1452	1560	945	1140	600	645	6	6	4500	4600	4600	4800			
	XX50/XX55N480	4800	2340	2570	5655	5775	6165	6195	1482	1595	975	1175	600	645	6	6	4300	4450	4500	4650			
	XX50/XX55N500	5000	2410	2635	5855	5975	6365	6395	1552	1660	1045	1240	600	645	6	6	4000	4200	4250	4500			
	XX50/XX55N550	5500	2575	2805	6355	6475	6865	6895	1718	1830	1210	1410	600	645	3	6	3600	3850	4000	4100			
	XX50/XX55N600	6000	2790	3020	6855	7020	7365	7395	1932	2045	1425	1625	600	645	3	6	3000	3050	3200	3250			
	XX50/XX55N650	6500	2980	3200	7355	7530	7865	7895	2123	2225	1615	1805	600	645	3	6	/	/	2650	2900			
XX50/XX55N700	7000	3155	3375	7855	8035	8365	8395	2298	2400	1790	1980	600	645	3	6	/	/	2350	2550				