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# XE305D

## Hydraulic Excavator



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## Advanced Configuration

### Ecological and economical

- ▶ Cummins three stage 169kW high-power engine is more fuel saving
- ▶ New Japan Kawasaki main pump can ensure high efficiency and reduced leakage
- ▶ Efficiency main valve increases overflow pressure and reduces pressure loss
- ▶ Smart matching technology ensures higher operating efficiency and lower fuel consumption

### Multiple application

- ▶ Variety of boom, stick and bucket matching to maximize utilization in different conditions
- ▶ Multi-functional intelligent work tool control system can meet different operating requirements such as digging, breaking and dismantling
- ▶ The plateau mode can easily cope with the high-altitude operating environment
- ▶ The new control system can achieve faster data management and more efficient control

### Comfortable and safe

- ▶ Air Conditioner and Heater ensure the appropriate temperature
- ▶ Silicone rubber shock absorber is adopted in the cab
- ▶ Air-suspending seat equipped with electric heating function
- ▶ Integrated control panel and large display screen provide multiple information
- ▶ ROPS and FOPS Cab can improve cab safety

### Excellent after-sales service

- ▶ Global after-sales service system and quick response mechanism
- ▶ Real-time technical consultation and maintenance

### Convenient maintenance

- ▶ Easy maintenance design concept makes your maintenance done without dead angle
- ▶ The smart management system offers you information of the whole machine timely

### Safe and durable

- ▶ Whole brazing technology improves lifespan
- ▶ Upgrade undercarriage structure to improve load bearing performance
- ▶ Strengthened key stress-bearing parts of chain links
- ▶ The three-stage filtration intake system can cope with severe dusty working conditions





## ► Ecological And Economical

- Cummins stage-three 169kW high-power engine featuring low speed, high torque and high-pressure injection, can provide more power and better fuel economy, and meet the construction requirement at 5000m altitude.



- New Japan Kawasaki main pump is fully upgraded with larger displacement, which is 7% higher than that of the previous generation. It can ensure high efficiency and reduced leakage under the same pressure. With large power output, more work can be done.
- Equipped with new generation of high efficiency main valve, the pressure loss is reduced, and the working ability is more outstanding.
- Smart matching technology matches the dynamic characteristics of the engine and the main pump reasonably and improves the power utilization and fuel economy. After continuous optimizations and improvements of the hydraulic system, the control performance is further strengthened, maneuverability is more refined, and leveling and loading performance is better.





## Comfortable And Safe

- ▶ Air conditioner and heater. Indoor and outdoor environment temperature can be sensed through sensors and automatically adjusted to comfortable temperature. With the adjustable air vents at different positions, it can provide a comfortable environment for the operators.



- ▶ Silicone rubber shock absorber is adopted in the cab to reduce vibration and impact.

- ▶ Comfortable high-performance seats: air-suspension seats with electric heating functions can achieve multi-dimensional adjustment and isolation of vibration waves.
- ▶ A new generation instrument has an 8-inch large screen display (the largest one among the industry). The page layout is more detailed and the picture is clearer.



- ▶ Optional ROPS and FOPS device and guards can improve cab safety.
- ▶ The cab is structurally reinforced and the seat is equipped with safety belts.



- ▶ Prevent mis-operations with safety lockout handle.
- ▶ Equipped with fire extinguisher, safety escape hammer and anti-skid device.



## Reliable And Durable

- ▶ The good performance composite fin radiator with whole brazing technology and robot welding improves cooling efficiency, saves energy and reduces noise so that environmental temperature adaptability is up to 55 °.



- ▶ The turntable adopts a rigid box structure to provide higher strength and improve the cab shock absorption ability. The engine mounting base structure is strengthened to improve shock absorption.



- ▶ With main body adopting H-beam rigid structure, the whole machine's strength is reinforced, and the turntable side frame adopts the D-tube structure to improve its ability to resist external impact.



- ▶ The travelling mechanism adopts strengthened key parts of the chain rails that take on stress, and the service life of the track is greatly improved. With strengthened X-beam section, and the strength of the end face is greatly improved by increasing the size, thickness and structure of the box beam.



- ▶ For severe dusty working conditions, the intake system has three-stage filtration, and the dry or wet air pre-filter can be selected.

- ▶ The central rotary body and hydraulic cylinder adopt 6000psi standard flange for oil outlet and high-pressure hose connection to reduce leakage risk. The anti-loose and shockproof design is carried out for the oil return pipeline, filter pipeline and hydraulic pipeline of the hydraulic hammer, which can better adapt to the breaking operation.



- ▶ Adopt the Finite Element Analysis (FMA) to strengthen the key parts of the boom and arm. Use the new type of shaft locking mode and increase the plate thickness. The arm has the regeneration function, which can fully improve the operation efficiency, coordination and stability of the whole machine.



## Maintenance And Service

- ▶ The oil filter, pilot filter, fuel filter, oil and water separator and air filter can be reached from the ground for inspection and replacement so as to save maintenance time and improve work efficiency.



- ▶ The smart management system of XCMG excavator, which adopts CAN bus communication and the Internet of Things technology, integrates the main control system, engine ECM, monitoring system, control panel, GPS cloud control system and field diagnosis system, realizes the digital sharing of machine information and improves the intelligence level of products. Convenient mobile APP micro service enables you to know the location, operation status, working time, fuel consumption and maintenance cycle of the excavator anytime and anywhere.



- ▶ (3) A wide range of after-sales service system, quick-response rescue mechanism can ensure that you use machine at ease.



### Multiple Application Conditions

The independently developed multi-functional intelligent work tool control system can be widely used for irrigation and water conservancy, river dredging, municipal construction and small mine construction. It can meet different operating requirements such as digging, breaking and dismantling, and its working condition adaptability is further strengthened.

The autonomous controller collects the altitude of the vehicle position and the engine inlet pressure, automatically matches the database, and prompts the operator to choose the plateau mode on the display, so as to easily cope with the high-altitude operating environment.

The new control system uses CAN bus, with the monitor for display and the controller for signal acquisition and output, the monitor, GPS controller and engine ECM are connected via CAN bus, which can achieve faster data management and more efficient control.





## Standard Equipment

	Name of equipment	XE305D
Engine	Engine model	QSB7
	Automatic preheating	
	Oil-water separator with water level indication sensor	
	Radial seal air cleaner	
	Air prefilter	
	Cooling components of 50°C high temperature environment	
	Radiator dust screen	
	Fuel breather valve	
	Oil and water quick discharge device	
	Fuel marker	
	Electronic silicone clutch	
	Air pressure difference indicator	
	Automatic idle speed	
	Boom/arm flow regeneration	
Hydraulic system	Auxiliary hydraulic valve	
	Reverse rotation damping valve	
	Automatic rotation parking brake	
	Hydraulic buffer valve	
	Straight hydraulic circuit	
	Boom priority valve	
	Rotary logic valve	
	Hydraulic oil ISO VG 46	
	Rotary anti-sway valve	
	Gauge pressure monitoring	
Cab and interior trim	Pressurized cab	
	Fully adjustable mechanical suspension seat	

Cab and interior trim	Adjustable seat armrest	
	Seat belt (51 mm [2 "] wide)	
	Openable windscreen with auxiliary device	
	Double laminated windshield and other toughened windows	
	Sliding door upper window	
	Bi-directional air outlet air conditioner with defroster (automatic type) (pressurization function)	
	Color liquid crystal display capable of displaying warning information, filter / liquid replacement information and working hours	
	Control handle	
	Travel control pedal with detachable manual control lever	
	Two stereo speakers	
	Beverage cup holder	
	Coat and hat hook	
	Cleanable floor mat	
	Air conditioning system	
Safety and security configuration	High and low gears shift	
	One-key boost mode	
	Top sunroof	
	Intermittent multi-gear wiper	
	Cup holder/envelope	
	Heating and cooling storage box	
	Wireless radio	
	Driving door locks and cabin locks	
	Alarm horn	
	Isolation plate between engine and oil pump chamber	
	Emergency stop switch of engine	
	Rear window emergency exit	
	Battery circuit breaker	
	Boom and arm retaining valve	

	Overheat alarm
Safety and security configuration	Safety handrails and pedals
	Anti-skid plate/anti-skid paste
	Hydraulic safety locking lever
	Emergency escape hammer
	Left and right rearview mirrors
Chassis system and shield	Bottom frame traction ring
	600 mm (24 ") three-rib track shoe
	Protective device kit: chassis bottom sealing plate, walking motor sealing plate
	Single guardrail device of track
Working device	Boom6.2m
	Arm3.11m
	Bucket 1.4m³ strengthened bucket
Lamp	Boom working lamp at left and right side
	Working lamp installed on the right side of storage box
	Lamp inside the cab
Electrical system	Battery (2×850CCA)
	70A Alternator
	7.8KW start motor
	24V Cigar lighter
Counterweight	5.4t Conuterweight
Technology	XEICS intelligent system
	Data link socket

### Optional Equipment

	Name of equipment	XE305D
Engine	Oil-water separator with heater (24V)	
	Oil bath type air prefilter	

	arm concentration
Engine	Fuel refueling pump 50L/min
	Fast fill fuel system
	Hydraulic pipeline:quartering hammer and thumb pliers
Hydraulic system	Operating modes switch
	Hydraulic oil ISO VG 32, 68
	Spare valve disc
	Heated air suspension seat with cushion
	Retractable seat belt (51 mm [ 2 " ] wide)
Cab and interior trim	Onboard oxygen device
	Fire extinguisher
	Reserved switch for auxiliary equipment
	Shade curtain
Chassis system and shield	600 mm (24 ") double-rib track plate
	700 mm (28 ") double-rib track plate
	800 mm (31 ") double-rib track plate
	600 mm (24 ") three-rib track plate
	700mm (28 ") three-rib track plate
	800 mm (31 ") three-rib track plate
	Crawler double guardrail device
	Full-length track guard ( two-piece, lower frame needs to be replaced )
Working device	Arm 2.6m
	1.3m³ Rock bucket
	1.4-1.6m³ Earthwork bucket
	Quick coupler
	Hydraulic breaker
	Hydraulic thumb pliers
	Ripper



Working device	Vibratory plate compactor
	Hydraulic shear
	Grip
	High frequency braker
	Clam shell bucket
	Plum-type bucket
	Sreen-type bucket
	Explosion-proof valve of boom and arm pipeline
	Rotating alarm light
	Counterweight reaview mirror
	Falling object protective structure (FOPS)
	Roll off protection structure(ROPS)
	Travel alarm
	12V Cigar lighter
	Camera
	5V USB interface
	12V Power interface
	Front working lamp installed on the top of cab
	Rear working lamp installed on the top of cab
	Electric self-lubrication system
	Arm concentration lubrication

## Main Specifications

Item	Unit	Parameters
Model	/	XE305D
Operating weight	Kg	30800
Bucket capacity	m <sup>3</sup>	1.4-1.6

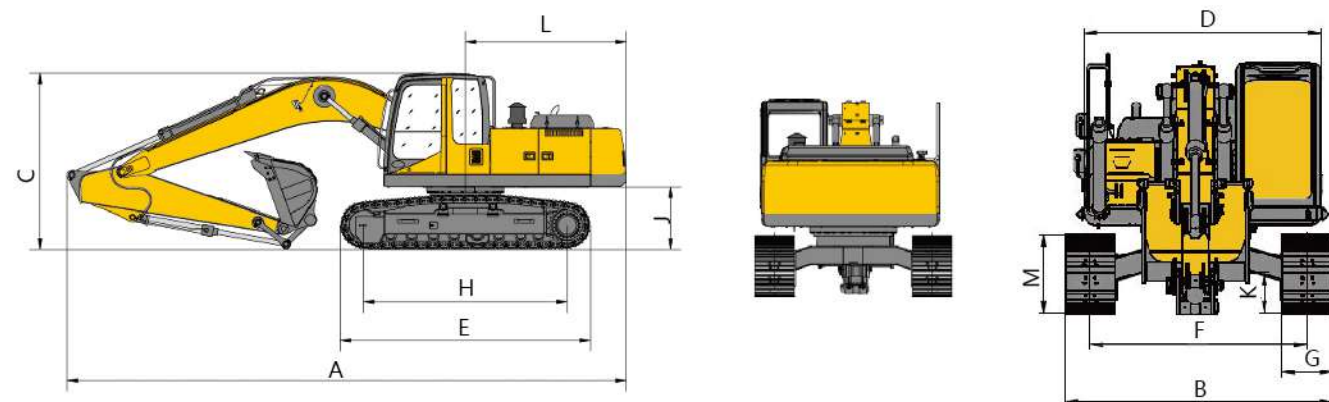
	Item	Unit	Parameters
Engine	Model	/	Cummins QSB7
	Direct injection	/	√
	Four strokes	/	√
	Water cooling	/	√
	Turbo-charging	/	√
	Air to air intercooler	/	√
	No. of cylinders	/	6
	Rated power/speed	kw/rpm	169/2050
	Maximum torque/speed	N.m	895/1250
	Displacement	L	6.7
Main Performance	Travel speed (H/L)	km/h	5.2/3.1
	Swing speed	r/min	9.8
	Gradeability	°	35
	Ground pressure	kPa	57
	Bucket digging force	kN	198
	Arm digging force	kN	138
	Maximum tractive force	kN	252
Hydraulic System	Main pump	/	Two piston pumps
	Rated flow of main pump	L/min	2×259
	Main safety valve pressure	MPa	34.3/37
	Travel system pressure	MPa	34.3
	Swing system pressure	MPa	30
	Pilot system pressure	MPa	3.9
Oil Capacity	Fuel tank capacity	L	520
	Hydraulic tank capacity	L	270
	Engine oil capacity	L	20



Item	unit	Main specifications
Standard	Length of boom	mm 6200
	Length of arm	mm 3110
	Bucket capacity	m <sup>3</sup> 1.4
Optional	Length of boom	mm /
	Length of arm	mm /
	Bucket capacity	m <sup>3</sup> 1.4(Strengthened bucket) 1.4(Rock bucket) 1.6(Earthwork bucket)

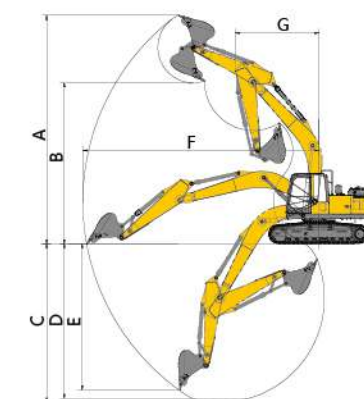
## Dimension

Item	Unit	Parameters
A Overall length	mm	10645
B Overall width	mm	3190
C Overall height	mm	3410
D Width of platform	mm	3050
E Track length	mm	4944
F Overall width of chassis	mm	3190
G Track shoe width	mm	600
H Wheel base of crawler	mm	4028
I Track gauge	mm	2590
J Counterweight clearance	mm	1198
K Min. ground clearance	mm	538
L Min. tail swing radius	mm	3200
M Height of track	mm	1084



## Working scope

Item	Unit	Parameters
A Max. digging height	mm	10146
B Max. dumping height	mm	7180
C Max. digging depth	mm	7200
D Maximum depth cut for 2240mm(8 ft) level bottom	mm	7000
E Max. vertical wall digging depth	mm	5190
F Max. digging radius	mm	10665
G Min. swing radius	mm	3076



## Lifting Capacity

Lifting point height (m)	Rated lift capacity – Straight ahead (back) (kg)							Rated lift capacity – over-side (kg)						
	Lifting point radius (m)						Lifting capacity at maximum radius	Lifting point radius (m)						Lifting capacity at maximum radius
	1.5	3	4.5	6	7.5	9		1.5	3	4.5	6	7.5	9	
8.8							* 5394							* 5394
7.5							* 5109							* 5109
6				*5400	*5345		* 4943				*5400	*5345		* 4943
4.5			*7478	*6273	*5713		* 4989			*7478	*6273	5556		4388
3			*9945	*7443	*6309		* 5211			*9945	7355	5325		4047
1.5			*12035	*8578	*6941	*5759	* 5632			10267	6934	5099	3927	3916
Ground			*13079	*9386	*7438		* 6357			9891	6656	4933		3975
-1.5		*10350	*13241	*9717	*7639		* 6806		*10350	9806	6539	4862		4264
-3	*11954	*16622	*12663	*9454			* 7275	*11954	*16622	9903	6574			4938
-4.5		*15493	*11092	*8150			* 7795		*15493	10190	6805			6539

Capacities marked with an asterisk(\*) are limited by hydraulic capacities.