# Hydraulic Excavators

# XE210U

XCMG

Rated Power:173 hp
Operating Weight: 50,927 lb
Standard Bucket Capacity: 1.57 $yd^3$


XCMG North America Corporation
5145 Schirlls Street, Las Vegas, NV 89118
Email: info@xcmgusa.com
Phone: (Las Vegas) 725-605-2777
(Houston) 346-409-2855
Web: www.xcmg-usa.com

# Technical Specifications

## Engine

Designed to deliver superior performance and fuel efficiency, the Cummins Stage IV diesel engine fully meets the emissions regulations. To optimize machine performance, the engine uses high-pressure fuel injectors, air-to-air inter-cooler and electronic engine controls. 4-Cycle Water-Cooled, turbocharged, Exhaust Gas Recirculation (EGR) & Selective Catalytic Reduction (SCR) with no Diesel Particulate Filter (DPF).

| Model | Cummins QSB6.7 |
|---|---|
| No. of cylinders | 6 |
| Rated power at 2100 rpm | |
| (SAE J1995) | 173 hp at 2100RPM |
| (SAE J1349) | 153 hp |
| (ISO 9249) | 153 hp |
| Max. torque at 1500 rpm | 800 Nm |
| Idle (low - high) | 700 - 1200 rpm |
| Piston displacement | 1.8 gal |
| Bore × stroke | 107 mm × 124 mm |
| Starter | 24 V × 7.8 kW |
| Batteries - Alternator | 2 × 12 V, 150 Ah - 24 V, 70 A |
| Air filter | Donaldson the latest PSD air filter and pre-filtered dust separator |

## Hydraulic system

The XICS (XCMG Intelligent Control System) is the brain of the excavator - minimizing fuel consumption and enabling the efficiency of the hydraulic system to be optimized for all working conditions. To harmonize the operation of the engine and the hydraulics, the XICS is connected to the engine's electronic control unit (ECU) via a data transfer link.

- The hydraulic system enables independent or combined operations - 2 travel speeds offer either increased torque or high speed
- Cross-sensing pump system for fuel savings - Auto-deceleration system
- 7 work modes, 3 power modes - Flow and pressure control of auxiliary hydraulic circuits from control panel
- Computer-aided pump flow control

### › Pumps flow & system pressure

| Main pumps, type: | 2 × variable displacement tandem axial piston pumps |
|---|---|
| Maximum flow at 1750 rpm | 2x55.5 gal/min |
| Pilot pump, type: | Gear pump |
| Maximum flow at 1750 rpm | 7.1 gal/min |
| Relief valve settings: | |
| Pressure up | 5,076/5,511 psi |
| Travel | 4,786 psi |
| Swing | 3,844 psi |
| Pilot | 580 psi |

## Undercarriage

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses.

- Lifetime lubricated track rollers - Idlers and sprockets fitted with floating seals
- Track shoes made of induction-hardened alloy with triple grouser
- Heat-treated connecting pins
- Hydraulic track adjuster with shock-absorbing tension mechanism

### › Number of rollers and track shoes per side

| Upper rollers (standard shoe) | 2 |
|---|---|
| Lower rollers | 9 |
| Number of links & shoes per side | 49 |
| Link pitch | 190 |
| Overall track length | 14'7" |

## Cab

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the pressurized and filtered cab air, which is distributed throughout the cab from multiple vents. The heated air suspension, adjustable operator's seat includes a seat belt. The operator can adjust the ergonomic seat and joystick console separately according to his preferences.
Note – Declared single-number noise emission values are the sum of measured values and the associated uncertainty, and they represent upper boundaries of the range of values which is likely ò Buckets to occur in measurements.

## Weight

| Shoe width (ft) | Operating weight (lb) | Ground pressure (psi) |
|---|---|---|
| 2'7" | 50,927 | 522 |
| 2' | 50,045 | 653 |
| 2'4" | 50,486 | 560 |

### › Noise emission

| A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396) | 71 dB(A) |
|---|---|
| A-weighted sound power level, LwAd (2005/88/EC) | Guaranteed : 103 dB(A)<br>Measured : 102 dB(A) |

# Technical Specifications

## Component weights

| Item | Unit | XE210U | Remarks |
|---|---|---|---|
| Upper structure without front | lb | 31,636 | With counterweight |
| Lower structure assembly | lb | 18,409 | 2' shoe |
| Front assembly | lb | 7,716 | Without cylinder |
| Counterweight | lb | 9,370 | SLR counterweight |
| Boom | ft/lb | 18'8"/3,351<br>17'1"/3,417<br>26'8" | Including bushing |
| Arm | ft/lb | 7'10"/1,587<br>9'6"/1,720<br>20'9" | Including bushing |
| Bucket | $yd^3$/lb | 1.2/1,024 | Including cylinder |

## Drive

Each track is driven by an independent, high-torque axial piston motor through a planetary reduction gearbox. Two levers / foot pedals guarantee smooth travel with counter-rotation on demand.
The track frame protects the travel motor, brake and planetary gears. The multi-disc track brakes are spring-applied and hydraulic released.

### Speed & traction

| | |
|---|---|
| Travel speed (low - high) | 2.2/3.5 mph |
| Maximum traction | 18.8 ton |
| Maximum gradeability | 35° / 70% |

## Hydraulic cylinders

High-strength steel piston rods and cylinder bodies. Shock-absorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

| Cylinders | Quantity | Bore × rod diameter × stroke (in.) |
|---|---|---|
| Boom | 2 | 4.7 × 3.4 × 48.1 |
| Arm | 1 | 5.3×3.7×57.4 |
| Bucket | 1 | 4.5×3.1×41.7 |

## Buckets

| Bucket Type | Capacity ($yd^3$) SAE | Width (ft) | | Weight (lb) | Boom 18'8" | | Boom 17'1" | |
|---|---|---|---|---|---|---|---|---|
| | | With side cutters | W/O side cutters | | Arm 7'10" | Arm 9'6" | Arm 7'10" | Arm 20'9" |
| | | | | | Shoe 2' | Shoe 2' | Shoe 2' | Shoe 2'7" |
| GP | 0.65 | - | 2' | 1,446 | A | A | A | - |
| | 0.78 | 3'3" | 3' | 1,435 | A | A | A | - |
| | 1.57 | 5' | 4'9" | 1,971 | A | B | A | - |
| HD | 1.22 | 4'2" | 3'11" | 1,799 | A | A | A | - |
| | 1.37 | 4'5" | 4'5" | 2,114 | A | A | A | - |
| | 1.57 | 4'4" | 4'2" | 2,061 | A | B | A | - |
| SD | 1.05 | 3'2" | 3'2" | 1,933 | A | A | A | - |
| | 1.18 | 3'6" | 3'6" | 2,039 | A | A | A | - |
| | 1.31 | 3'9" | 3'9" | 2,127 | A | A | A | - |

## Swing mechanism

The swing mechanism uses an axial piston motor, driving a 2-stage planetary reduction gear bathed in oil for maximum torque.
- Swing bearing: single-row, shear type ball bearing with induction hardened internal gear
- Internal gear and pinion immersed in lubricant

### Swing speed & torque

| | |
|---|---|
| Maximum swing speed | 11.8 rpm |
| Maximum swing torque | 51,247 lbf·ft |

### Fluid capacities

| | |
|---|---|
| Fuel tank | 105.7 gal |
| Cooling system (radiator) | 6 gal |
| Urea (DEF) tank | 11.1 gal |
| Hydraulic oil tank | 58 gal |
| Engine oil | 6.3 gal |
| Swing drive | 1.8 gal |
| Travel device | 2x1.1 gal |

GP: General purpose; HD: Heavy duty; SD: Severe duty;

A: Suitable for materials with a density less than or equal to 2100 kg/$m^3$(131 lb/$ft^3$)

B: Suitable for materials with a density less than or equal to 1800 kg/$m^3$(112 lb/$ft^3$)

C: Suitable for materials with a density less than or equal to 1500 kg/$m^3$(93 lb/$ft^3$)

Based on ISO 10567 and SAE J296, arm length without quick-coupler. For reference only.

# Lifting Capacities

## XE210U

Standard undercarriage width: 10'6'' · W/O Bucket

| Unit: 1000 lb | A | 4'11'' | | 9'10'' | | 14'9'' | | 19'8'' | | 24'7'' | | Max. reach | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | | | | | | | | | | | | | |
| | 24'7'' | | | | | | | 11,244 | 9,700 | | | 10,362 | 9,259 | 13,801 |
| | 19'8'' | | | | | | | 10,803 | 9,700 | | | 9,700 | 7,055 | 16,204 |
| One-piece boom | 14'9'' | | | | | | | 11,905 | 9,259 | 10,362 | 6,393 | 9,259 | 5,732 | 17,659 |
| 18'8'' | 9'10'' | | | | | | | 13,228 | 9,700 | 10,141 | 6,393 | 8,598 | 5,291 | 18,409 |
| Arm 9'6'' | 4'11'' | | | | | 22,053 | 12,346 | 13,669 | 8,378 | 9,921 | 5,952 | 8,157 | 5,291 | 18,563 |
| Shoe 2'7'' | 0 | | | 10,803 | 10,803 | 20,723 | 11,684 | 13,448 | 7,937 | 9,700 | 5,732 | 8,378 | 5,071 | 18,100 |
| Counterweight 9,370 lb | -4'11'' | 12,566 | 12,566 | 20,503 | 20,503 | 22,053 | 11,684 | 13,007 | 7,716 | 9,480 | 5,732 | 9,259 | 5,512 | 16,976 |
| | -9'10'' | 22,487 | 22,487 | 31,306 | 22,267 | 20,723 | 11,684 | 13,669 | 7,937 | | | 11,244 | 8,598 | 15,058 |
| | -14'9'' | | | 26,235 | 22,928 | 18,298 | 12,125 | | | | | 14,110 | 9,039 | 11,949 |

: Over front
: Over side or 360°

1. The lifting capacity ratings are based on ISO10567.
2. * The maximum lifting capacity is limited by hydraulic rather than tipping load.
3. With the machine standing on level and firm ground, the lifting capacity does not exceed 87% of the hydraulic capacity or 75% of the tipping load.
4. The operator should be familiar with the machinery operation and maintenance manuals. Local regulations concerning the operation safety of machinery must be followed at all times.
5. The lift diagrams only cover machines that are originally built by the XCMG: without lifting chains and any other lifting equipment.
6. When the excavator is used to lift or handle materials, it must comply with local regulations.


Quick Coupler


Grapple


Shear Dismantler


Forest Machine Grapple


Orange Peel Grapple


Eagle Shear


Pile Hammer


Hydraulic Breaker


Rotating Crusher


Compactor

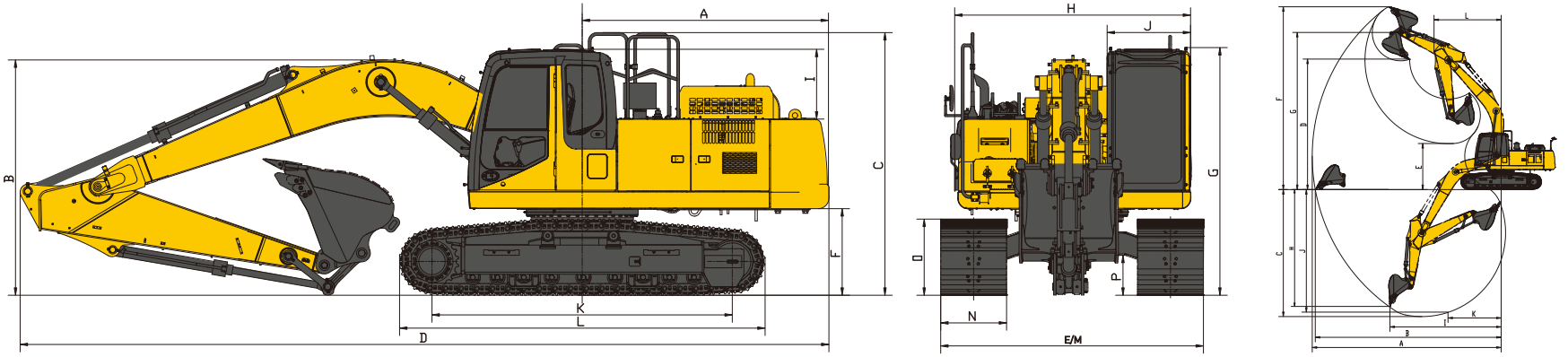

Pulverizer

# Lifting Capacities

Standard undercarriage width: 10'6'' · W/O Bucket

| Unit: 1000 lb | A | 4'11'' | | 9'10'' | | 14'9'' | | 19'8'' | | 24'7'' | | Max. reach | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | | | | | | | | | | | | | A |
| One-piece boom<br>18'8''<br>Arm 7'10''<br>Shoe 2'7''<br>Counterweight 9,370 lb | 24'7'' | | | | | | | | | | | 12,346 | 11,023 | 12,434 |
| | 19'8'' | | | | | | | 13,007 | 11,684 | | | 11,464 | 7,275 | 15,080 |
| | 14'9'' | | | | | | | 13,889 | 12,787 | 12,346 | 7,716 | 11,244 | 7,055 | 16,667 |
| | 9'10'' | | | | | | | 16,094 | 10,803 | 12,125 | 7,275 | 10,582 | 6,173 | 17,483 |
| | 4'11'' | | | | | 24,692 | 14,771 | 16,535 | 10,141 | 12,125 | 7,275 | 9,921 | 6,173 | 17,637 |
| | 0 | | | | | 24,912 | 13,889 | 16,094 | 9,700 | 11,684 | 7,055 | 9,921 | 6,173 | 17,152 |
| | -4'11'' | | | | | 24,692 | 13,889 | 15,653 | 9,259 | | | 11,023 | 6,834 | 16,006 |
| | -9'10'' | | | 24,912 | 24,912 | 24,912 | 13,889 | 16,094 | 9,480 | | | 13,007 | 7,937 | 13,955 |
| | -14'9'' | | | 39,242 | 26,896 | 22,267 | 14,991 | | | | | 16,976 | 11,244 | 10,538 |

# Technical Specifications




## Dimensions

| XE210U | | One-piece boom | | SLR |
|---|---|---|---|---|
| Boom length - ft | | 18'8'' | | 20'9'' |
| Arm length - ft | | 7'10'' | 9'6'' | 7'10'' |
| Bucket capacity - yd³ | | 1.6 | 1.4 | 0.5 |
| A | Tail swing radius - ft | 9'10'' | 9'10'' | 9'10'' |
| B | Shipping height (boom) - ft | 10' | 9'11'' | 10'4'' |
| C | Shipping height (hose) - ft | 10'4'' | 10'4'' | 10'8'' |
| D | Shipping length - ft | 31'8'' | 33'6'' | 39'10'' |
| E | Shipping width - ft | 10'6'' | 10'6'' | 10'6'' |
| F | Counterweight clearance - ft | 3'5'' | 3'5'' | 3'5'' |
| G | Height over cab - ft | 9'9'' | 9'9'' | 9'9'' |
| H | House width - ft | 9'3'' | 9'3'' | 9'3'' |
| I | Cab height above house - ft | 2'9'' | 2'9'' | 2'9'' |
| J | Cab width - ft | 3'4'' | 3'4'' | 3'4'' |
| K | Tumbler distance - ft | 12' | 12' | 12' |
| L | Track length - ft | 14'7'' | 14'7'' | 14'7'' |
| M | Undercarriage width - ft | 10'6'' | 10'6'' | 10'6'' |
| N | Shoe width std. - ft | 2'7'' | 2'7'' | 2'7'' |
| O | Track height - ft | 3' | 3' | 3' |
| P | Ground clearance - ft | 1'7'' | 1'7'' | 1'7'' |

## Working range

| XE210U | | One-piece boom | | SLR |
|---|---|---|---|---|
| Boom length - ft | | 18'8'' | | 26'8'' |
| Arm length - ft | | 7'10'' | 9'6'' | 20'9'' |
| Bucket capacity - yd³ | | 1.6 | 1.4 | 0.5 |
| A | Max. digging reach - ft | 30'11'' | 32'7'' | 50'7'' |
| B | Max. digging reach (ground) - ft | 30'5'' | 32'1'' | 50'4'' |
| C | Max. digging depth - ft | 20'3'' | 21'11'' | 38'1'' |
| D | Max. unloading height - ft | 21'10'' | 22'3'' | 36'7'' |
| E | Min. unloading height - ft | 9'9'' | 7'10'' | 7'3'' |
| F | Max. digging height - ft | 31'2'' | 31'7'' | 43'6'' |
| G | Max. bucket pin height - ft | 26'9'' | 27'2'' | 39'6'' |
| H | Max. vertical wall depth - ft | 18'3'' | 18'9'' | 28'10'' |
| I | Max. radius vertical - ft | - | - | - |
| J | Max. digging depth (8´level) - ft | 19'6'' | 21'4'' | 36'9'' |
| K | Min. radius 8´line - ft | 19'8'' | 20'8'' | 33' |
| L | Min. swing radius - ft | 11'7'' | 11'7'' | 15'6'' |

## Digging forces (ISO)

| XE210U | One-piece boom | | One-piece boom | SLR |
|---|---|---|---|---|
| Boom length - ft | 18'8'' | | 18'8'' | 26'8'' |
| Arm length - ft | 7'10'' | 9'6'' | 7'10'' | 20'9'' |
| Bucket capacity - yd³ | 1.57 | 1.4 | 1.7 | 0.5 |
| BUCKET (Normal/Press. Up) - lbf | 34,845 | 33,497 | 37,993 | 13,713 |
| ARM (Normal/Press. Up) - lbf | 27,202 | 24,954 | 29,675 | 11,016 |