

# XC958



## XCMG Wheel Loader



# XCMG XC958

## Specification

### Engine

This product is powered by Euro-III compliant electronic control turbocharged engine, in which the high pressure common rail fuel supply system is controlled by ECU to achieve accurate fuel injection control, high pressure, low pressure fluctuation, optimal combustion rate, automation, and ignition timing, high combustion efficiency, high power reserve, and strong power. This engine features the advantages of high reliability, high adaptability, low fuel consumption, and low emission.

**Air filter:** The three-stage air filter guarantees the normal running of machine under diversified severe working conditions.

**Radiator system:** The hydraulically-driven electronic control intelligent radiator system automatically adjusts the speed depending on the heat dissipation needs of various systems, featuring high energy-conservancy and efficiency and optimal performance.

|                                |          |
|--------------------------------|----------|
| XC958                          |          |
| Engine                         | QSB8.3   |
| Rated power at speed, r/min    | 2200     |
| Rated power, kW/hp             | 179/240  |
| Maximum torque at speed, r/min | 1500     |
| Maximum torque, N.m            | 1085     |
| Economic speed range, r/min    | 800-1800 |
| Displacement, L                | 8.3      |

### Power System

**Transmission:** ZF full-automatic transmission, with KD function and 4 forward and 3 reverse gears, featuring outstanding performance. It adapts to the operating needs

under diversified working conditions of the loader.

**Drive axle:** ZF wet type axle for front axle is equipped with limited slip differential and built-in wet brake to prevent environmental pollution.

The maintenance-free brake pads achieve more stable and reliable braking performance.

|                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| XC958                        |                            |                           |
| Transmission                 |                            | ZF 4WG210                 |
| Maximum driving speed        | 1 <sup>st</sup> gear, km/h | 6.5                       |
|                              | 2 <sup>nd</sup> gear, km/h | 11                        |
|                              | 3 <sup>rd</sup> gear, km/h | 24                        |
|                              | 4 <sup>th</sup> gear, km/h | 38                        |
| Tire specification           |                            | 23.5R25                   |
| Front/rear axle              |                            | MT-L3095II/<br>MT-L3095II |
| Rear axle swing angle      ° |                            | ±12                       |

### Electric System

The centralized control box (Fuse case) and the power master switch are arranged within the cab and left stand to achieve excellent dust-proof and shock-proof performance and high reliability. The connector between instrument panel harness and rear frame harness adopts sealed through-wall connector to ensure excellent water-proof and moisture-proof performance and high reliability. This machine is equipped with standard LED lamps, electric horn, front and rear wipers, and radio. The machine harnesses are arranged as per international standard and conform to IP67 water-proof standard.

|                                         |                      |
|-----------------------------------------|----------------------|
| Voltage, V                              | 24                   |
| Battery, V                              | 2×12                 |
| Battery capacity, Ah                    | 2×120                |
| Cold start performance (Approximate), A | 850                  |
| Alternator rating, W/A                  | 1680/70              |
| Starter motor output power, kW          | 7.8                  |
| Battery                                 | To positive terminal |

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## Brake System

**Brake system:** Brake system with power cutoff function.

**Service brake:** Double-circuit system with nitrogen charged accumulator. The drive incorporates full-sealed circulating oil cooled wet type brake, in which the power can be cut off during the braking.

**Parking brake:** Caliper disc type. With spring braking method and electronically controlled hydraulic release method, it can be operated by the switch near the control box.

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|                                                |     |
|------------------------------------------------|-----|
| Number of brake disc for each front/rear wheel | 1/1 |
|------------------------------------------------|-----|

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|             |      |
|-------------|------|
| Accumulator | 2×2L |
|-------------|------|

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## Cab System

**Cab:** This machine is equipped with FOPS/ROPS pressurized cab, with heating and A/C system, diaphragm molded rubber floor, and laminated glasses.

**Instruments:** The multifunctional combination instrument centrally displays all important information within the operator visual range.

**Seats:** The adjustable suspension seats are fixed on the cab floor.

**Certification:** The cab has been tested and certified as per ROPS standard (ISO 3471) and FOPS standard (ISO 3449).

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|                 |                                                        |
|-----------------|--------------------------------------------------------|
| Emergency exit: | The window glasses can be broken by the escape hammer. |
|-----------------|--------------------------------------------------------|

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|               |    |
|---------------|----|
| Cab noise, dB | 76 |
|---------------|----|

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|                              |     |
|------------------------------|-----|
| External radiation noise, dB | 102 |
|------------------------------|-----|

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|                                  |   |
|----------------------------------|---|
| Ventilation, m <sup>3</sup> /min | 9 |
|----------------------------------|---|

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|                      |    |
|----------------------|----|
| Heating capacity, kW | 10 |
|----------------------|----|

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|         |     |
|---------|-----|
| A/C, kW | 5.6 |
|---------|-----|

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## Boom System

The lifting system is in classic Z-shaped 6-link structure, featuring simple structure, high firmness and reliability, higher breakout force output, and convenient daily maintenance.

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|               |   |
|---------------|---|
| Boom cylinder | 2 |
|---------------|---|

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|                       |     |
|-----------------------|-----|
| Cylinder diameter, mm | 150 |
|-----------------------|-----|

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|                         |    |
|-------------------------|----|
| Piston rod diameter, mm | 90 |
|-------------------------|----|

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|            |     |
|------------|-----|
| Stroke, mm | 800 |
|------------|-----|

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|                 |   |
|-----------------|---|
| Bucket cylinder | 1 |
|-----------------|---|

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|                       |     |
|-----------------------|-----|
| Cylinder diameter, mm | 160 |
|-----------------------|-----|

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|                         |    |
|-------------------------|----|
| Piston rod diameter, mm | 90 |
|-------------------------|----|

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|            |     |
|------------|-----|
| Stroke, mm | 560 |
|------------|-----|

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## Hydraulic System

**System supply:** One load-sensing variable displacement plunger pump always gives priority to the steering system and one gear pump supplies high pressure oil to the brake system.

**Valves:** The main valve is a pilot control multi-way valve. Depending on the need of specific attachment, the duplex or triple multi-way valve can be installed.

**Lifting function:** The boom lifting limit, the bucket automatic leveling function, and the working device floating function are provided.

**Cylinders:** The double-acting cylinders are used for all functions.

**Filters:** The oil is filtered by 10um filter elements and the installation locations of the filters ease the maintenance and replacement.

**Pipelines:** The hydraulic pipeline adopts the ISO compliant seals. The rubber protective sleeve is added for the hose segments easily vulnerable to wear, in order to prolong the life and improve the reliability of hydraulic pipeline.

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|                                         |    |
|-----------------------------------------|----|
| Maximum working pressure of pump 1, MPa | 25 |
|-----------------------------------------|----|

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|             |     |
|-------------|-----|
| Flow, L/min | 198 |
|-------------|-----|

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|                     |      |
|---------------------|------|
| Engine speed, r/min | 2200 |
|---------------------|------|

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|                 |      |
|-----------------|------|
| Maximum working | 20.5 |
|-----------------|------|

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|                                       |      |                     |      |
|---------------------------------------|------|---------------------|------|
| pressure of pump 2, MPa               |      | Transmission oil, L | 55   |
| Flow, L/min                           | 165  | Drive axle oil, L   | 2×44 |
| Engine speed, r/min                   | 2200 |                     |      |
| Working pressure of pilot system, MPa | 3.5  |                     |      |
| Cycle time                            |      |                     |      |
| Lifting, s                            | 5.4  |                     |      |
| Tilting, s                            | 1.1  |                     |      |
| Lowering, s                           | 3.5  |                     |      |
| Total cycle time, s                   | 10   |                     |      |

## Steering System

The load-sensing full-hydraulic articulate steering features handy and flexible operations. The double mechanical limits (Flexible and rigid limits) are applied for the steering limits to reduce the steering impact and improve the operating comfort of the driver and the reliability of the machine.

**System supply:** The load-sensing hydraulic system gives priority to steering.

**Steering cylinders:** Two double-acting cylinders.

|                                        |      |
|----------------------------------------|------|
| XC958                                  |      |
| Steering cylinder                      | 2    |
| Cylinder bore, mm                      | 90   |
| Piston rod diameter, mm                | 50   |
| Stroke, mm                             | 540  |
| Working pressure, MPa                  | 20.5 |
| Maximum articulated angle, $\pm^\circ$ | 40   |

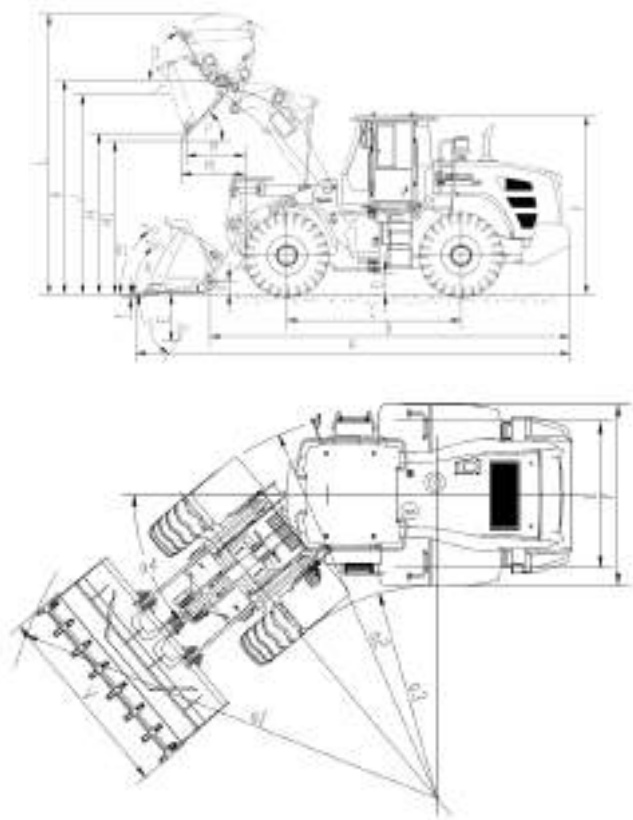
## Service

Backward-tilting hood and easily accessible pressure measurement and lubricating points, centrally arranged electric fuse case, and the machine diagnostic interface ease the daily maintenance and repairs of the machine.

|                       |     |
|-----------------------|-----|
| XC958                 |     |
| Fuel tank, L          | 300 |
| Engine coolant, L     | 35  |
| Engine oil, L         | 24  |
| Hydraulic oil tank, L | 220 |

Technical Specification

|          |               |         |                 |
|----------|---------------|---------|-----------------|
| Tires    |               | 23.5R25 |                 |
| Category | Standard boom | Note    |                 |
| B        | mm            | 6905    |                 |
| C        | mm            | 3350    |                 |
| D        | mm            | 420     |                 |
| F        | mm            | 3435    |                 |
| J        | mm            | 3830    |                 |
| K        | mm            | 4103    |                 |
| O        | °             | 52.7    |                 |
| P        | °             | 45      |                 |
| R        | °             | 42.5    |                 |
| R1       | °             | 46.5    |                 |
| T        | mm            | 65      |                 |
| U        | mm            | 240     | Level on ground |
| X        | mm            | 2250    |                 |
| Y        | mm            | 2850    |                 |
| a2       | mm            | 5995    |                 |
| a3       | mm            | 3145    |                 |
| a4       | ±°            | 40      |                 |



| XC958                        |                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
|------------------------------|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                              |                | Rock type                                                                         |                                                                                   | General type                                                                      | Bulk material type                                                                  |                                                                                     |                                                                                     |
| Tires<br>23.5R25             |                |  |  |  |  |  |  |
| Bucket capacity              | m <sup>3</sup> | 2.5                                                                               | 3.0                                                                               | 3.1                                                                               | 3.5                                                                                 | 4.0                                                                                 | 4.5                                                                                 |
| Dumping load (Full steering) | kg             | 12650                                                                             | 12570                                                                             | 12815                                                                             | 12610                                                                               | 12270                                                                               | 12250                                                                               |
| Breakout force               | kN             | 177                                                                               | 180                                                                               | 182                                                                               | 157                                                                                 | 157                                                                                 | 152                                                                                 |
| A                            | mm             | 8421                                                                              | 8386                                                                              | 8336                                                                              | 8361                                                                                | 8481                                                                                | 8516                                                                                |
| E                            | mm             | 979                                                                               | 950                                                                               | 910                                                                               | 930                                                                                 | 1027                                                                                | 1055                                                                                |
| H                            | mm             | 2900                                                                              | 2920                                                                              | 3100                                                                              | -                                                                                   | -                                                                                   | -                                                                                   |
| H1                           | mm             | -                                                                                 | -                                                                                 | -                                                                                 | 2980                                                                                | 2910                                                                                | 2870                                                                                |
| L                            | mm             | 5610                                                                              | 5580                                                                              | 5580                                                                              | 5490                                                                                | 5650                                                                                | 5650                                                                                |
| M                            | mm             | 1260                                                                              | 1230                                                                              | 1100                                                                              | -                                                                                   | -                                                                                   | -                                                                                   |
| M1                           | mm             | -                                                                                 | -                                                                                 | -                                                                                 | 1210                                                                                | 1210                                                                                | 1250                                                                                |
| V                            | mm             | 3000                                                                              | 3035                                                                              | 3000                                                                              | 3200                                                                                | 3200                                                                                | 3200                                                                                |
| a1                           | mm             | 6840                                                                              | 6820                                                                              | 6800                                                                              | 6810                                                                                | 6850                                                                                | 6860                                                                                |
| Operating weight             | kg             | 19635                                                                             | 19445                                                                             | 19200                                                                             | 19405                                                                               | 19745                                                                               | 19765                                                                               |

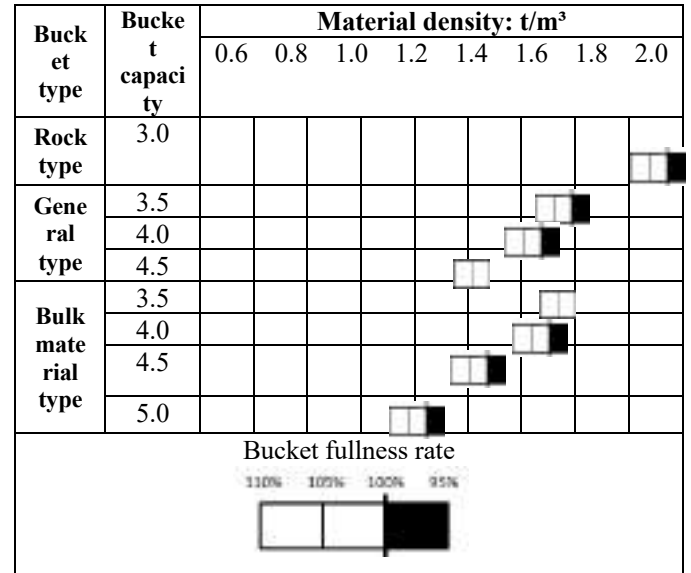
## Bucket Selection Table

The selection of bucket depends on the material density and the expected bucket fullness coefficient. Thanks to the bucket design, the excellent rollback angle in all directions, and the outstanding bucket loading performance, the actual bucket capacity is generally higher than the rated capacity. The standard boom configuration is used for the following examples.

For instance: Gravel: Bucket fullness coefficient at ~105% and the density at 1.6 t/m<sup>3</sup>.

Result: 4.0 m<sup>3</sup>. The bucket is actually loaded with 4.2m<sup>3</sup> material. To guarantee the optimal stability, please ensure to reference to the Bucket Selection Table.

| Material  | Bucket fullness coefficient | Material density | Bucket capacity |
|-----------|-----------------------------|------------------|-----------------|
| Soil/clay | ~110                        | ~1.7             | 4.0             |
| Gravel    | ~105                        | ~1.8             | 3.5             |
| Aggregate | ~100                        | ~1.6             | 4.5             |
| Rock      | ≤100                        | ~1.8             | 3.0             |



# Configuration

|                                                                                  |  |                                                                              |  |
|----------------------------------------------------------------------------------|--|------------------------------------------------------------------------------|--|
|                                                                                  |  | LED working lamps (4 front and 2 rear lamps)                                 |  |
| <b>Standard Configuration</b>                                                    |  | Reversing warning                                                            |  |
| <b>Maintenance</b>                                                               |  | Rotary warning lamp                                                          |  |
| Remote drainage of engine oil                                                    |  | <b>Warning and indicator lamps:</b>                                          |  |
| Remote filling of transmission oil                                               |  | Battery charging                                                             |  |
| Accessible lubrication manifold from ground                                      |  | Parking brake                                                                |  |
| Pressure connection checking: Transmission and hydraulic system quick connectors |  | <b>Warning and display information:</b>                                      |  |
| Lockable toolbox                                                                 |  | Engine coolant temperature                                                   |  |
|                                                                                  |  | Engine oil pressure lamp                                                     |  |
|                                                                                  |  | Transmission oil temperature                                                 |  |
| <b>Engine</b>                                                                    |  | Braking pressure (Only low pressure warning)                                 |  |
| Three-stage air filter, prefilter, and primary and secondary filters             |  | Applied parking brake (Only display)                                         |  |
| Glass shield of coolant level indicator                                          |  | <b>Level warning:</b>                                                        |  |
| Intake preheater                                                                 |  | Fuel level                                                                   |  |
| Fuel filler filter screen                                                        |  | <b>Power system</b>                                                          |  |
| Fuel prefilter with water separator                                              |  | Automatic power shift                                                        |  |
| Fuel filter                                                                      |  | Forward/reverse gear switchover controlled by hydraulic joystick             |  |
| Exhaust heat insulator                                                           |  | Glass shield of transmission oil level indicator                             |  |
| External radiator air inlet protection                                           |  | Differential: Front, with limited slip differential; Rear, conventional type |  |
| Centrifugal air prefilter                                                        |  | <b>Brake system</b>                                                          |  |
| Reversible cooling fan                                                           |  | Double-circuit brake                                                         |  |
| <b>Electric system</b>                                                           |  | Electronically controlled hydraulic parking brake                            |  |
| 24V pre-wiring system for optional accessories                                   |  | <b>Cab</b>                                                                   |  |
| 24V/70V alternator                                                               |  | ROPS (ISO 3471), FOPS (ISO 3449)                                             |  |
| Battery cutoff switch                                                            |  | Sound insulation lining                                                      |  |
| Fuel gauge                                                                       |  | Cigarette lighter socket, 24V power socket                                   |  |
| Hour meter                                                                       |  | Lockable door                                                                |  |
| Electric horn                                                                    |  | Cab heater and defroster (Heater air vents) with fresh air inlet             |  |
| Instrument panel:                                                                |  | Fresh air inlet with two filters                                             |  |
| Fuel level                                                                       |  | Internal lamps                                                               |  |
| Transmission temperature                                                         |  | Interior rearview mirror                                                     |  |
| Coolant temperature                                                              |  | Double exterior rearview mirror                                              |  |
| Instrument lamp                                                                  |  | Colored safety glass                                                         |  |
| <b>Lamps:</b>                                                                    |  | Adjustable steering wheel                                                    |  |
| Double LED headlamp with high beam and low beam                                  |  | Storage box                                                                  |  |
| Double brake lamp and rear lamp                                                  |  |                                                                              |  |
| Turn signal lamp with hazard warning lamp function                               |  |                                                                              |  |

|                                                                            |                                                                    |
|----------------------------------------------------------------------------|--------------------------------------------------------------------|
| File pocket                                                                | Quick refueling                                                    |
| Sun visor                                                                  | Turbocharger delayer                                               |
| Front and rear windscreen washers                                          | <b>Electric system</b>                                             |
| Front and rear windscreen wipers                                           | License plate support with lamp                                    |
| Radio with USB port                                                        | Rearview camera with color display                                 |
| Radio installation package with 11A, 12V power socket                      | Reversing flashing warning lamp                                    |
| Steering wheel knobs                                                       | Standby power socket                                               |
| <b>Hydraulic system</b>                                                    | Battery & starter motor isolation switch                           |
| Pilot control main valve                                                   | Reverse camera                                                     |
| <b>Variable displacement axial plunger pump (3) for following systems:</b> | Weighing system                                                    |
| 1. Working hydraulic system                                                | Two-way radio                                                      |
| 2 Steering system                                                          | Auxiliary starter socket                                           |
| Boom lifting limit                                                         | Access light                                                       |
| Bucket automatic leveling                                                  | Maintenance light                                                  |
| Double-acting hydraulic cylinder                                           | <b>Hydraulic system</b>                                            |
| Hydraulic oil level indicator                                              | Anti-bump stabilization module                                     |
| Hydraulic oil cooler                                                       | Pressure release safety cap for hydraulic oil tank                 |
| <b>External devices:</b>                                                   | Anti-burst valve                                                   |
| Front and rear fenders                                                     | Emergency steering system                                          |
| Cab silicone oil shock absorber                                            | <b>Cab</b>                                                         |
| Engine and transmission rubber dampers                                     | ISRI air suspension seats, with high backrest and heating function |
| Easily openable engine hood                                                | RESPA pressurizing and filtration system                           |
| Front and rear frame lock handles                                          | <b>Fire extinguishing system</b>                                   |
| <b>Vandal proof lock for following parts:</b>                              | JSG Muster II automatic fire extinguishing system                  |
| Engine compartment                                                         | Tires                                                              |
| Radiator grille                                                            | 23.5-25-16PR                                                       |
| <b>Other</b>                                                               | 23.5-25-16PR(L3)                                                   |
| Driver's tool kit                                                          | 23.5R25(★★)                                                        |
|                                                                            | <b>Bucket:</b>                                                     |
|                                                                            | General type                                                       |
|                                                                            | Side-discharging type                                              |

## Configuration

### Optional Configuration

#### Maintenance

Lincoln automatic lubrication system

Service center (engine, hydraulic & transmission)

Lubrication system grease filling pump

#### Engine

Oil bath type air prefilter

High-end fuel filter

Quick change attachment

Light material type

\* Due to technology improvements, the contents of this brochure and the structure and configuration specification of this product are subject to continuous improvement without further notice. In event of any discrepancy between brochure information and real product, the real product shall prevail.