



XCMG FOR YOUR SUCCESS



GR3505 MOTOR GRADER



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Highlights of GR3505

High-efficiency working performance

- 1 > Optimized weight and power matching
> Variable horsepower engine control
> Hydraulic transmission with lock-up clutch
> More sensitive steering control
> Spade with the optimal radius
> High-pressure, large-displacement load-sensitive hydraulic drive system
> Temperature control independent heat dissipation technology

Durable structure design

- 2 > The hinged area of the front and rear frame adopts redundant design
> The driving rear axle of the all-gear drive mine grader
> The slewing device adopts the combined drive of the anti-impact overload protection worm gear box and the slewing ring,
> The front axle joints, angle positioner are made of precision castings
> The grader is equipped with a rock guard

Comfortable and intelligent control experience

- 3 > Electronically controlled dual-handle operation
> The throttle is locked
> The blade floats
> The hinge joint is automatically reset
> Intelligent integrated monitoring
> Low vibration and noise, good visibility
> The dual-purpose air conditioner for heating and cooling
> The standard cab pressurization function
> The control panel and switch distribution meet the needs of ergonomics

Convenient and centralized maintenance

- 4 > Modular design
> The slewing device adopts a slewing support structure,
> The filter elements are arranged side by side
> Three-level fault alarm and intelligent diagnosis system
> Optional centralized lubrication system and fast oil filling system

Solid and adequate security

- 5 > Speed-sensitive steering system
> Secondary steering system
> Wet brake, increase the braking torque
> Hydraulic lock function
> Ground isolation switch
> Configure aisles, handrails and platforms
> Reversing image
> Optional 360° panoramic image
> Optional automatic fire extinguishing system,





High-efficiency working performance

>Optimized weight and power matching of the whole machine, providing strong traction output, which can easily cope with sudden short-term load surges and maintain the traveling speed even under heavy loads

>Variable horsepower engine control, which can provide sufficient power in all gears, protect the structure and drive train components, and perform constructions in a variety of different working conditions efficiently at the same time

>Hydro-mechanical transmission with lock-up clutch. When the lock-up clutch is disengaged, it is a hydro-mechanical transmission, which can provide large torque output and has stronger impact resistance; when the lock-up clutch is combined, it is directly driven, which can improve transmission efficiency and work efficiency

>Follow-up steering, more sensitive steering control, can quickly and excellently complete turning operations, and reduce equipment maneuvering time

>Optimized blade curve can provide excellent cutting angle and material turning effect, reduce material accumulation in the blade area, and reduce the working load of the whole vehicle

Follow-up

Spade with the optimal-radian

Optimized weight and power matching

Variable horsepower engine control

Temperature control independent heat dissipation technology

Hydraulic transmission with lock-up clutch

>High-pressure, large-displacement load-sensitive hydraulic drive system that matches hydraulic flow/pressure and power requirements to ensure that all tools are operated at the same time without reducing the speed of the engine or tools.

>Temperature control independent heat dissipation technology, the fan speed can be adjusted according to the actual heat dissipation requirements of the body engine, gearbox and other components, to meet the use requirements of the extreme environment range of -40 to 55°C;



Durable structure design

- > The hinged area of the front and rear frame adopts redundant design, which can ensure excellent performance and durability under heavy load conditions
- > The front axle joints, angle positioner, swing frame and other parts with greater impact are made of precision castings to improve the distribution of stress concentration and improve durability



> The driving rear axle of the all-gear drive mine grader avoids chain wear and impact damage caused by chain drive. At the same time, the balance box adopts a slewing bearing, which avoids the wear and displacement failures that are likely to occur in the copper sleeve structure;

..... Redundant design of the articulated area of the front and rear frames

Combination drive of anti-shock overload protection worm gear box and slewing ring

The front axle joints, angle positioner, swing frame and other parts with greater impact are made of precision castings



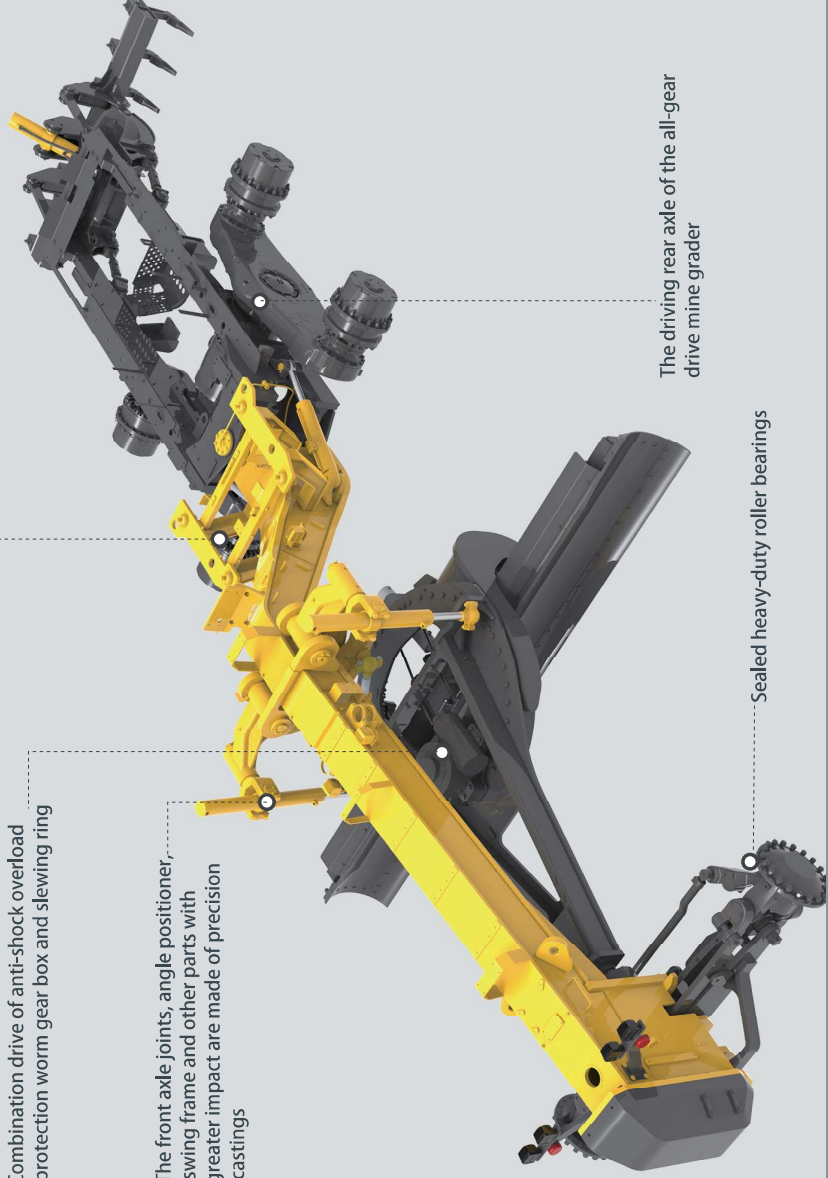
> The slewing device adopts the combined drive of the anti-impact overload protection worm gear box and the slewing ring, which reduces the slewing resistance and improves the service life of the slewing device under high-impact conditions



The use of sealed heavy-duty roller bearings and high wear-resistant alloy steel sleeves greatly increases the service life of the front axle, hinges, operating devices and other rotating pairs



> The grader is equipped with a rock guard to prevent the back of the blade, front axle cylinder, gearbox and other parts from being damaged by rocks



The driving rear axle of the all-gear drive mine grader

Sealed heavy-duty roller bearings

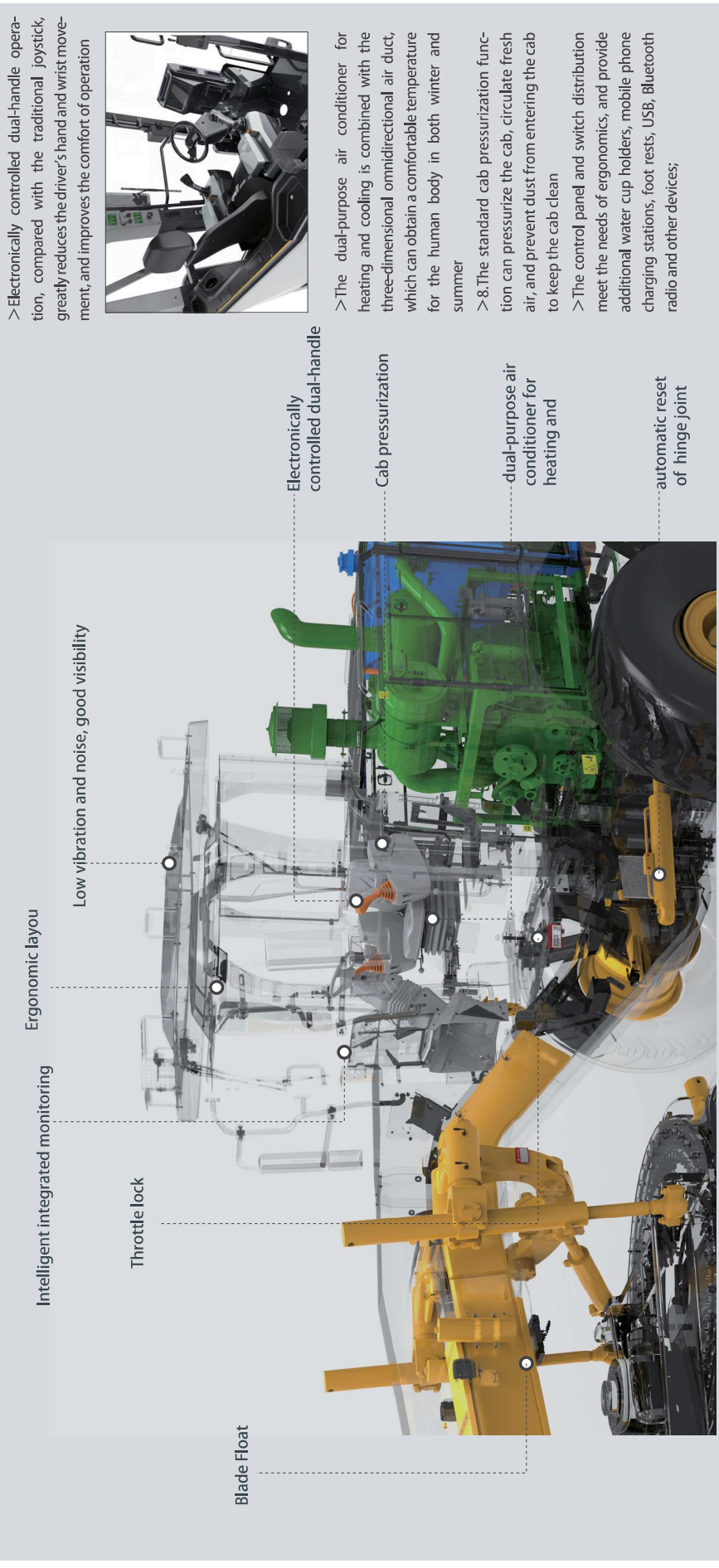


Comfortable and intelligent control experience

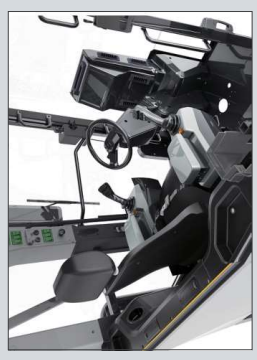
> The throttle is locked, and the feet are released under normal operation
> The blade floats, it can adapt to the undulations of the road surface under free floating, and effectively remove snow and mud from the road surface. Under pressure floating, it can effectively smooth the hard road surface and reduce the frequency of operation of the lifting cylinder

> 4. The hinge joint is automatically reset, just press the handle button, the device can be hinged back to the neutral position from any angle automatically.
> Intelligent integrated monitoring, convenient to monitor the running status of the machine, and set the working parameters

> Low vibration and noise, good visibility, equipped with a spacious and comfortable sealed cab, installed in isolation from the engine and transmission, to minimize the transmission of noise and vibration, and provide excellent blade vision, equipment travel and steering vision



> Electronically controlled dual-handle operation, compared with the traditional joystick, greatly reduces the driver's hand and wrist movement, and improves the comfort of operation



> The dual-purpose air conditioner for heating and cooling is combined with the three-dimensional omnidirectional air duct, which can obtain a comfortable temperature for the human body in both winter and summer

> 8. The standard cab pressurization function can pressurize the cab, circulate fresh air, and prevent dust from entering the cab to keep the cab clean

> The control panel and switch distribution meet the needs of ergonomics, and provide additional water cup holders, mobile phone charging stations, foot rests, USB, Bluetooth radio and other devices;



Convenient and centralized maintenance

- > Modular design, the disassembly and reinstallation of key components will not affect other components
- > The slewing device adopts a slewing support structure, which eliminates the need for repeated adjustments and replacement of wear-resistant pads, saving maintenance time and costs
- > Optional centralized lubrication system and fast oil filling system to save daily maintenance and oil replenishment time
- > The filter elements are arranged side by side, and the oil and water drains are all remotely led to the ground contact position, simplifying maintenance and saving time
- > Three-level fault alarm and intelligent diagnosis system, when a fault occurs, an alarm is issued to the operator, forming a fault code prompt, fault information query and preliminary diagnosis can be carried out according to the prompt, and a complete set of intelligent diagnosis software and hardware is provided





Solid and adequate security

> Speed-sensitive steering system reduces steering sensitivity as the driving speed increases, thereby increasing steering control and safety

> Secondary steering system, When the steering pressure drops, the electric pump is automatically combined, so that the operator can safely drive the machine to the stop position

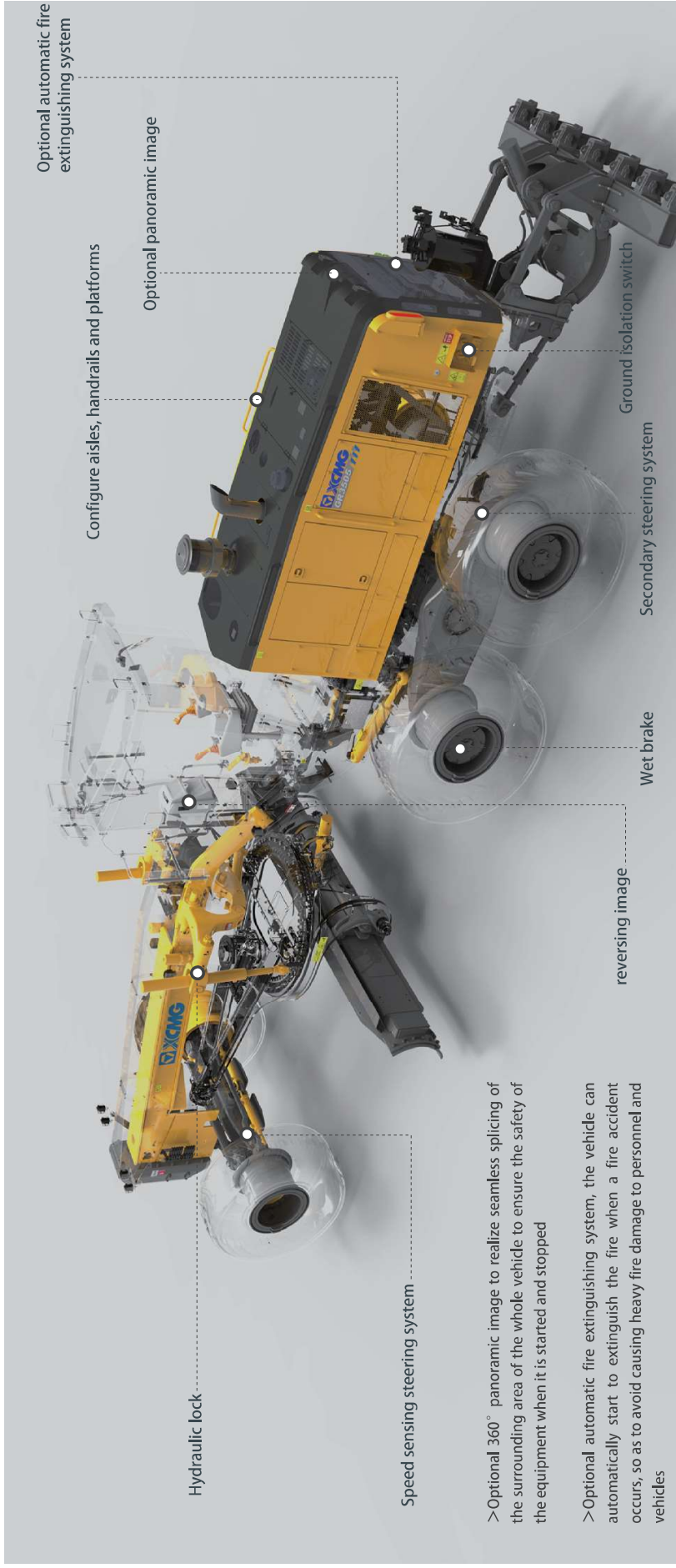
> Wet brake, increase the braking torque, and configure the brake accumulator, the braking effect is more reliable, and the service life is longer

> Hydraulic lock to avoid misoperation of hydraulic implement when the Grader is in transition or high-speed driving

> Ground isolation switch, which can stop the engine and cut off the power of the whole vehicle at the ground position without getting on the vehicle

> Configure aisles, handrails and platforms to improve the safety of personnel entering the cab and overhauling equipment

> The reversing image effectively reduces the blind area of the rear vision and improves safety



> Optional 360° panoramic image to realize seamless splicing of the surrounding area of the whole vehicle to ensure the safety of the equipment when it is started and stopped

> Optional automatic fire extinguishing system, the vehicle can automatically start to extinguish the fire when a fire accident occurs, so as to avoid causing heavy fire damage to personnel and vehicles



Parameter

Item	GR3505
Engine type	QSM 11
Rated power/Speed	261kW/2100rpm
Machine dimension(standard)	11320X3400X4100mm
Machine weight(standard)	32000kg
Tyre specification	23.5R25
Ground clearance (Front axle)	625mm
Wheel base	2700mm
Axle distance between front and rear	7300mm
Wheel base between middle and rear	1996mm
Forward speed	5, 8.5, 13, 20, 30, 45km/h
Rearward speed	5, 13, 30km/h
Traction force f=0.75	≥ 160kN
Maximum gradeability	≥ 30%
Inflation pressure of tire	475kPa
Work system pressure	25MPa
Maximum steering angle of front wheel	±48°
Allowable angle of inclination of front wheel	±17°
Maximum swinging angle of front axle	±15°
Maximum swinging angle of balance box	Front15°、rear15°
Maximum steering angle of frame	±23°
Minimum turning radius	9.6m
Maximum lifting height	470mm
Maximum scraping depth	660mm
Maximum tilt angle	65°
Cutting angle	45°
Angle of revolution	360°
Length × Height	4877x686mm
Coolant	50L
Fuel tank	550L
Engine	37L
Transmission box	38L
Balance box	186L
Drive axle	106L
Hydraulic oil	210L

Overall Dimension

