

Operating Weight 17,000 kg

Rated Power 180 kW (241hp / 245 ps) @ 2,200 rpm

Draw Bar Pull 93 kN Blade Width 4,270

4,270 mm

4230DMOTOR GRADER

TOUGH WORLD. TOUGH EQUIPMENT.

The construction world is your reality, you live it every day and you know how hard it can be to make your business pay. Rising costs, increasing legislation and greater competition all combine to put the pressure on. We understand and we've put that understanding into action with a game changing new motor grader that is inspired by you.

THE NEW 4230D

WHERE WE LEAD, OTHERS FOLLOW

We don't follow the expensive trend towards over-engineered products. We know where real customer value lies. With the new 4230D we've used our deep customer insight to re-think the traditional grader to create an award-winning, class leading machine.

WRITING A NEW STORY

With the new 4230D, we've written a new chapter in the motor grader story with a machine that delivers unparalleled visibility, control sensitivity and job-site performance. A machine which has been globally recognised for its innovative design and technical excellence with a Red Dot Award.

YOU WANTED A HARD-WORKING MOTOR GRADER THAT DELIVERS ON 4 ESSENTIAL NEEDS



BEST IN CLASS
VISIBILITY



ULTIMATE GRADING POWER



ENHANCED OPERATOR PERFORMANCE



SIMPLE & COST-EFFECTIVE MAINTENANCE







With the new 4230D, we've risen to your challenge and given you a machine designed to exceed your expectations.

TOUGH TALK? Judge for yourself.



Award-winning design is about insight, not guesswork. There are no shortcuts in our design process. Our UK based design team have invested thousands of hours to really understand how motor graders are used day-to-day.

In award-winning design, form always follows function, so the distinctive visual styling of the new 4230D goes way beyond the cosmetic.

It looks different because it has a cohesive design which considers every angle from the operator's perspective.

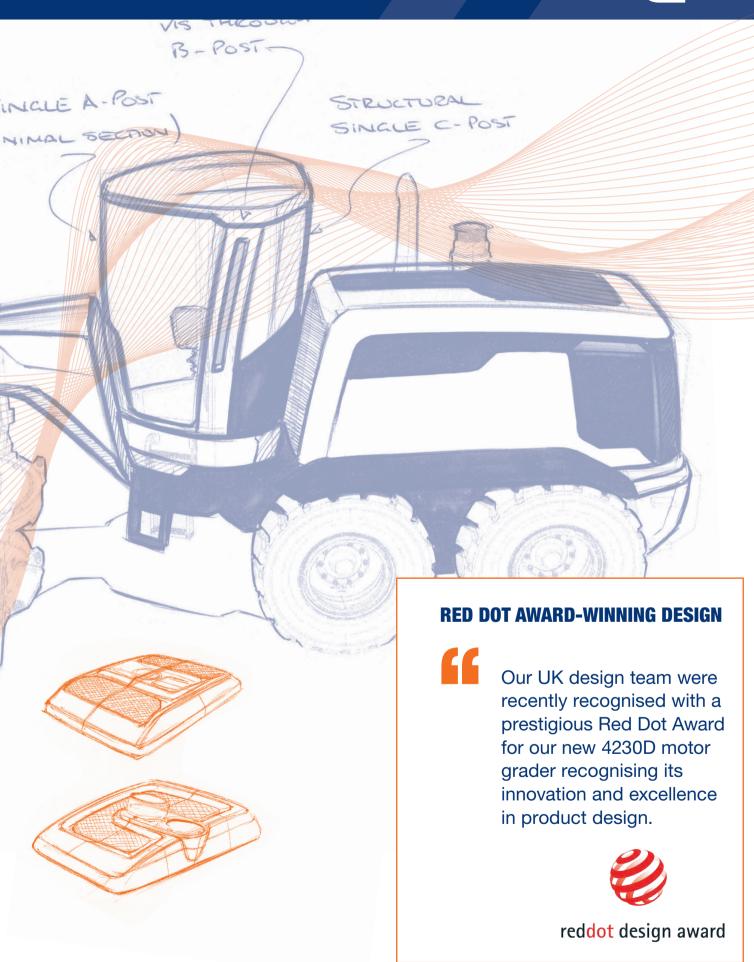
It performs better because operational performance lies at the heart of the design concept.

Red Dot Awards are not won by accident, they are the result of genuine innovation and that innovation is fundamental to our design DNA.









DESIGN IN ACTION

Our design DNA is clear in the bold lines and distinctive appearance of our new 4230D. It was designed as a cohesive form – not simply a collection of components – giving it a dynamic and purposeful stance. As you would expect, its performance is matched to its looks.



ULTIMATE VISIBILITY

When it comes to visibility, our 4230D rewrites the rule book with 324° panoramic view.



IMPROVED OPERATOR ENVIRONMENT

New ergonomic design creates the ultimate operating environment for getting the job done in safety and comfort.



GREATER STABILITY

The A-shape drawbar has been designed to deliver outstanding stability, whatever the grading environment. Its high-strengh construction significantly reduces component wear and downtime.



WEAR RESISTANT GEARS

With a one piece, wear resistant design our reinforced worm gearbox works harder for longer.



POWERFUL AND RELIABLE ENGINE

Our award-winning grader is powered by a proven Guangxi Cummins Tier 2/Stage II approved engine with turbocharger and air-to-air intercooler.



LONGER LASTING TRANSMISSION

Our ZF 6-speed powershift transmission is designed to get the job done, again and again.



DRIVE AXLE

Our maintenance-free limited slip differential axle transfers all of the torque to the tyres, improving traction and grading capability.



EVEN TOUGHER

We've reinforced the moldboard with heat-treatment to create a tough, longer-lasting cutting edge.







MAINTENANCE-FREE BEARINGS

I The slewing ring bearing has been designed for high loads and rigidity and is completely maintenance-free.



HIGHER GROUND CLEARANCE

The pendulum mechanism has been upgraded to achieve 602mm ground clearance making the grader safer to load onto a trailer or move onsite.





BEST-IN-CLASS VISIBILITY

Our UK design team really understand the operator's world. Thousands of hours of insight have allowed them to gain a unique understanding of motor graders and their limitations. This insight has enabled them to redesign our new 4230D with the operator at the heart.



324° VISIBILITY

Clear visibility is key to operator performance, satisfaction and safety on the job site. Our team rose to the challenge with a cohesive design that radically improved visibility to create a 324° panoramic view.

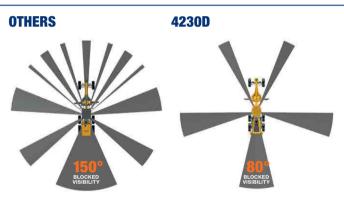
THE NEW 5 PILLAR CAB IS PERFECTLY ALIGNED

It sounds obvious, but to increase visibility you have to remove obstructions from the operator's view. Our innovative 5 pillar cab benefits from a slimline, A-pillar which is perfectly aligned with the lifting cylinder. This clever alignment reduces obstructions by 45% and significantly improves the operator's forward view.



FORWARD VIEW IMPROVED BY 115%





This diagram graphically illustrates how obstructions have been reduced to increase visibility from every angle

CLEAR REAR VIEW

The rear view has also been radically improved thanks to the intelligent positioning of the C-pillar directly behind the operator. The pre-cleaner and exhaust are aligned along the tapered, "wasp waisted" hood to reduce obstructions and improve sightlines by 149% to the rear.









SEEING IS BELIEVING

With the 4180D, we have revolutionised motor grader visibility. Climb into the cab, take a look for yourself, your eyes will give you all the proof you need.



149% IMPROVEMENT TO REAR VIEW



ULTIMATEGRADING POWER

A motor grader is a tool and its real value lies in its ability to help the operator move the maximum amount of material in the most efficient way. It's all about blade control, power and maneuverability.

THE POWER IN YOUR HANDS

At the heart of our award-winning 4230D beats world leading engine technology, powering a high performance driveline. The Guangxi Cummins Tier 2 engine has been carefully chosen to deliver operational performance and economy to meet Stage II legislation standards.



PRECISION TRANSMISSION

ZF's 6-speed powershift transmission gives the operator a simple, precise and light gear changing capability allowing him to fully concentrate on doing the very best job in the fastest possible time. Fully equipped with heavy duty rolling chains (140% stronger than the average) our transmission promises to keep on working harder, for longer.



ROLLING CHAINS 140% STRONGER THAN AVERAGE

HIGH-TORQUE AXLE

Our NoSPIN, limited slip differential axles deliver all of the torque to the tires, giving traction and confidence the operator can really feel. The strengthened rear axle is perfect for light or heavy duty conditions and its integral structure makes it maintenance-free.

KLEANAIRE AIR PRE-CLEANER

Improving engine performance and fuel economy, and reducing downtime, our pre-cleaner neutralises the negative effects of the toughest, dustiest environments.

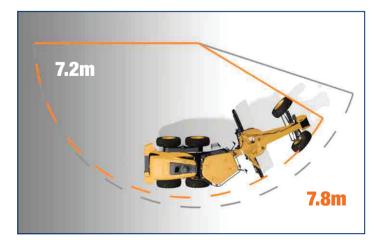


GREATER MANEUVERABILITY

On job sites turning space can be very limited, so we've reduced the turning radius of the 4230D down to 7.2m, one of the narrowest in the industry.



7.2M TURNING RADIUS







GRADING POWER WHERE YOU NEED IT.





High performance at its best. We've used our insight to not only improve visibility, but to create a high performance working environment. Comfortable, flexible and with a range of smart options that actually help the operator do more – every shift.

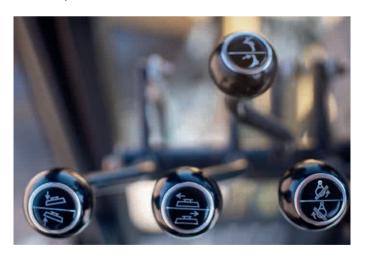
NEW ERGONOMICS

Slope grading and finish grading are demanding tasks requiring skill and precision. We've given the operator the ultimate control. Our redesigned control cluster brings the action closer to the operator.



ONE-HAND OPERATION

In addition, subtle design changes allow the operator to manipulate multiple levers with one hand, helping them to enjoy the finest, most sensitive control.



LOW VIBRATION – HIGH PERFORMANCE

Improved damping cab mounts significantly reduce vibrations even during the toughest tasks, helping to keep the operator comfortable and focused.

Our new, improved, suspended seat also helps keep the operator comfortable no matter how rough the terrain, This combined with sophisticated temperature control and air-conditioning and fully pressurised cab, help the operator stay warm in the snow and cool in the sun.

SMOOTHER RIDE

Ripping and rock spreading can be tough jobs but we've protected the operator by creating a quieter cab, with in-cab noise reduced by up to 10%.



AUTOMATIC GRADE CONTROL

When precision is everything, our laser guidance and cross slope system helps your operator to grade faster, more accurately and with fewer passes.

The laser transmitter accurately and automatically guides and controls the blade, ensuring a top quality finish. Real-time information is relayed to the operator via the in-cab monitor.

HIGH PERFORMANCE OPTIONS

No grading job is too tough to handle with our range of performance enhancing options.

ONE GRADER – MULTIPLE APPLICATIONS

We give you the widest choice of tools to tackle any surface.

3 optional moldboards from 28 to 74 degrees

Scarifier for light soil preparation

5-tooth ripper for tough soil and roots

Front blade for dozing applications







WE HELP THE OPERATOR DO MORE, EVERY SHIFT.





SIMPLE & COST-EFFECTIVE MAINTENANCE

You challenged us to make maintenance checks even faster and easier. We listened, understood and responded by creating a "one-stop" maintenance concept for all key components such as; fuel and oil filters, hydraulics and electronics system. Our centralised system saves on downtime and makes routine maintenance simple.

EASY SERVICE ACCESS

We can save you time and stress with improved service access. Here are just some of our improvements.

Remotely activated oil drain



Wide opening spread hitch improves service access to the gearbox and hydraulics



Transmission refuelling can be completed at the distal end



Disconnect switch is located close to the cab for added convenience



Easy maintenance modulated wiring harness



Battery and fuel tank filler are safely positioned within the rear hood



EXTENDED SERVICE INTERVALS

In order to reduce downtime and operating costs our 4230D benefits from longer service intervals for oil, lubricant and coolant.

MORE FUEL - LESS DOWNTIME

The intelligently positioned, super-sized 348L fuel tank holds more fuel and reduces downtime without creating visual obstructions for the operator.



REAL-TIME INFORMATION

In-cab displays allow the operator and service technician to constantly monitor the machine's performance, improving diagnostic accuracy and reducing maintenance time.

MORE SPACE TO WORK

To further improve service access, all service points are centralised on the left of the machine. The one-piece hood opens to a 50° angle, improving visibility and giving plenty of space to work.



HOOD OPENS TO 50° ANGLE







WITH OUR NEW 4230D WE'VE WORKED HARD TO MAKE MAINTENANCE EASY – SO YOU DON'T HAVE TO.



LONGER SERVICE INTERVALS

BACKING YOU ALL THE WAY

You challenged us to make maintenance checks even faster and easier. We listened, understood and responded by creating a "one-stop" maintenance concept for all key components.



WE ARE LIUGONG. WORKING HARD TO KEEP OUR GLOBAL CUSTOMERS EARNING 9,500+ Employees 20 Regional subsidiaries 300+ Dealers 1,000+ R&D engineers 60 Years' experience experience





MAINTENANCE AND SUPPORT PACKAGES

From genuine LiuGong parts, to full repair and maintenance contracts, LiuGong has the flexibility to offer the level of support and response to suit your business and applications. Whatever level of support you choose you can be confident that it is backed up by LiuGong's service promise.



COMMUNICATION IS KEY

We always aim to keep you informed on service and maintenance work and provide you with clear and accurate estimates, invoices and information in a timely manner. These may be small things, but your feedback tells us that these basics really matter – so we aim to get them right.

Right parts.
Right price.
Right service.



Above all, we get it right the first time.

1st



PARTS AVAILABILITY IS HIGH ON OUR AGENDA. WE'RE WORKING HARD TO GET YOU THE PARTS YOU NEED WHEN YOU NEED THEM.



TOTAL COST OF OWNERSHIP

High visibility, grading power and operator performance are two key motor grader purchasing criteria, but ultimately, the machine's earning potential, its overall life cost and its trade-in value really matter too.

When it comes to total cost of ownership, LiuGong has a strong story to tell.

PROFESSIONAL ADVICE

We are committed to reducing your total cost of ownership and increasing your profits. Our experts will provide targeted advice on everything, from choosing the right machine to maximizing its efficiency on-site.

MACHINE AVAILABILITY

Our extensive manufacturing operation right in the heart of Europe, enables us to offer significantly shorter lead times on a range of models, compared with some manufacturers.

In fact, we can deliver selected machines in as little as 4 weeks. The faster you can get a machine, the faster you can get working and earning.

TICKET PRICE

At LiuGong, our aim is to give you everything you need and nothing you don't.

For example, we choose high quality, proven components such as Cummins engines and Permco hydraulic pumps.

These proven components, combined with LiuGong design and manufacturing quality, result in a high quality, competitive machine.

RESIDUAL VALUE

With the combination of LiuGong design and manufacturing excellence, world- class components and comprehensive uptime support, our quality holds its value.







IT ALL ADDS UP

With our new 4230D we've listened to operators and given you everything you need and nothing you don't. We've given you a choice of tough motor graders all backed up by LiuGong's service promise.

When it comes to performance, we've got it covered, on the job site and on the balance sheet. Add up the benefits and you'll see that our new 4230D has the formula for success.











BEST-IN-CLASS VISIBILITY

ULTIMATE GRADING POWER

ENHANCED OPERATOR PERFORMANCE

SIMPLE & COST-EFFECTIVE MAINTENANCE

CUSTOMER SATISFACTION

SPECIFICATIONS

Operating Weight 17,000 kg

Operating weight includes the machine weight with standard work device (no additional equipment or accessories), full fuel tank, all fluids at required level and an operator 75 kg.

Draw Bar Pull 93kN

ENGINE

Description

Guangxi Cummins Tier 3 / Stage IIIA approved, 6.7 liter, 6-cylinder straight turbocharged diesel engine with mechanical direct fuel injection system.

Cummins turbocharged system, high transient response.

Cummins fuel filtration system, high filtration efficiency.

Air cleaning: Whirlwind pre filter, two stage air filter.

Cooling system: Air-to-air intercooler, single radiator layout.

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Emission Rating	Tier 3/ Stage IIIA
Engine Manufacturer	Guangxi Cummins
Engine Model	QSL9.3
Rated Power	180 kW (241 hp / 245 ps) @ 2,200 rpm
Peak Torque	1186 N·m @ 900- 1,600 rpm
Torque Rise	17.5%
Displacement	6.7L
Number of Cylinders	6
Bore x Stroke	107x124 mm
Aspiration	Turbocharged, air-to- air inter-cooled
Derating Altitude	3,500 m

AXLE	
Differential	Limited slip
Rear Axle Tandem Oscillation	± 15°
Front Axle Type	All welded steel frame
Front Axle, wheel Lean Angle	Left/right 18°

HYDRAULIC SYSTEM

Description

System supply: Two gear pumps with fix displacement.

Multi- spool valves distribute the oil independently for controlling the position of a grader blade: lift, hold, lower, shift, roll-over and rotation.

Tilt function: With a tilt cylinder, the front wheel lean angle can be up to a maximum of 18°

Pump Type	Gear
System Pressure	20±0.5 MPa
Pump Flow	122 L/min

TRANSMISSION

Description

Torque converter: three - member single turbine.

Transmission: powershift, electronic shift change control.

Gear shifting system: Number of speeds, forward-6, reverse-3. Compact, high efficiency, low noise, easy to operation.

Drive	4 Wheel Drive
Forward	
1st	6.2 km/h
2nd	10.7 km/h
3rd	12.4 km/h
4th	21.2 km/h
5th	26.2 km/h
6th	42 km/h
Reverse	
1st	6.2 km/h
2nd	12.4 km/h
3rd	26.2km/h

SERVICE CAPACITY	
Fuel Tank	348 L
Engine Oil	21 L
Cooling System	35 L
Hydraulic Reservoir	165 L
Transmission & Torque Converter	33 L
Axle Oil	40 L

STEERING

Description

Steering system: Load-sensing hydraulic steering.

System supply: The steering system has priority feed from a gear pump with fix displacement.

Steering cylinders: Two double-acting cylinders.

Steering Configuration	Front wheel steering
Steering Relief Pressure	16.7 ± 0.5 MPa
Minimum Turning Radius	7,200 mm
Steering Angle	±50°
Frame Articulation Angle	±27°

BRAKES

Description

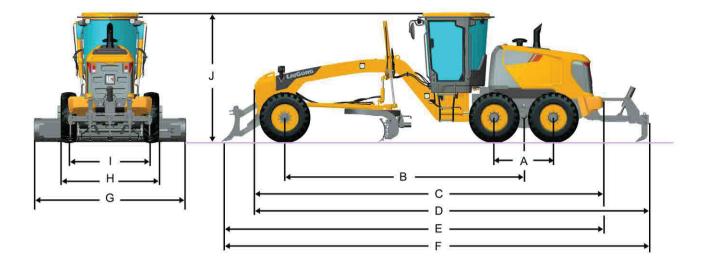
Single brake circuit, accurate control with the brake valve & gear pump.

Service Brake Type	Fully hydraulic, shoe type	
Parking Brake Type	Manual	

TIRES	
Standard Tire Size	17.5 – 25 PR12
Inflation Pressure	0.26 ~ 0.30 MPa



DIMENSIONS



CAB

Description

Instrumentation: All important information is centrally located in the central instrument panel and operator's field of vision.

Adjustable steering column, high back seat and A/C with all-around air outlets.

SOUN	D & I	ENVIR	ONM	ENT

Sound Level in Cab According to ISO 6396-2008	81 dB(A)
External Sound Level According to ISO 6394-2008	111 dB(A)
Heating Capacity	5 kW
Air Conditioning	4.6 kW

Blade Width	610 mm
Blade Length	3,960 mm
Maximum Lift Above Ground	600 mm
Maximum Depth of Cut	680 mm
Blade Tilt Angle	90°
Circle Rotation	360°

28° – 74°

≥ 7,600 kg

BLADE RANGE

Cutting Angle

Blade Ground Pressure

	DIMENSIONS	
	A Length – Between Tandem Axles	1,538 mm
	B Length – Front Axle to Mid Tandem	6,230 mm
	C Length – Counterweight to Rear of Machine	9,090 mm
	D Length – Counterweight to Ripper	10,280 mm
	E Length – Dozer to Rear of Machine	10,080 mm
	F Length – Dozer to Ripper	11,270 mm
	G Width - Blade	3,960 mm
	H Width – Outside Tires	2,600 mm
	I Width – Tire Center Lines	2,150 mm
	J Height – Top of Cab	3,380 mm

ATTACHMENTS		
Dozer		
Width	2,740 mm	2,500 mm
Depth Below Ground	215 mm	215 mm
Lift Above Ground	850 mm	850 mm
Weight	1,051 kg	1,012 kg
Ripper		
Width	2,200 mm	
Ripping Depth – Maximum	445 mm	
Lifting Height	716 mm	
Ripper Shank Holders, Quantity	5	
Weight	1,147 kg	
Scarifier		
Working Width	1,655 mm	
Scarifying Depth – Maximum	165 mm	
Lifting Height	221 mm	
Scarifier Shank Holders, Quantity	11	
Weight	849 kg	
Counterweight		
Front	780 kg	
Rear	870 kg	

STANDARD EQUIPMENT

ENGINE

- · Air filter dust valve
- Cummins QSL Engine, EPA Tier 3 / EU Stage IIIA Engine, rated power 162 kW (241 hp / 245 ps), air- to-air intercooled, 6 cylinders, 4 stroke
- High pressure common rail, electronically controlled injection
- Pre-filter with water separator
- Fuel filter
- Electrical stopping engine
- · Engine intake preheating
- Foot throttle
- Hand pump
- · Fuel-tank fill strainer
- · Fuel-tank set washport
- Engine oil filter
- Dipstick
- Fuel-tank with respiratory function
- Fuel-tank drain port
- · Fuel moisture alarm
- Intake resistance indicator
- Air filter dust valve

TRANSMISSION

- ZF 6WG200 automatic power shift transmission
- F6/R3
- Transmission oil level sight gauge
- Transmission oil filler

AXLE

- Front axle LiuGong
- · Oscillating front axle
- Front axle tilt
- · Front axle steering
- · Front axle locking device
- Rear axle Meritor dry axle with limited slip differentials
- Drum service brake system
- Tandem oscillation
- Tandem chain drive

HYDRAULIC SYSTEM

- Two gear pumps with fix displacement hydraulic system
- · Lift cylinder with hydraulic lock
- Articulated steering with hydraulic lock
- · Hydraulic oil tank with filter
- Hydraulic oil tank with visual level gauge
- · Hydraulic oil tank breathing port
- Hydraulic oil tank with oil return filter
- Swing arm hydraulic latch

STEERING SYSTEM

· Load sensing system with steering in priority

TIRE & RIM

• 17.5 - 25 PR12 bias tire

WORK DEVICE

- A-shape drawbar structure
- Large sectional boxed frame
- · Circle bearing
- Worm gearbox

ELECTRIC SYSTEM

- Headlights on top of cab, 2 front, 2 rear
- · Two headlights
- Two front combination lights
- Two rear combination lights
- Four lights on front frame
- Batteries, free of maintenance
- Cigarette lighter, 24 V power outlet
- Electric horn
- Front windshield wiper
- · Back-up alarm
- Radio/player with USB port

BRAKE SYSTEM

- Emergency brake
- · Hydraulic brake system
- Single circuit brake

INDICATOR GROUP

- · Intake air filter alert
- Battery charging
- · Parking brake applied
- Power cut-off
- · Turning lights
- Transmission oil pressure alarm
- · Beam of front light
- · Intake heating indication
- Headlight high beam indicator
- Low engine oil pressure
- Engine coolant temperature
- Transmission oil temperature
- Fuel level
- Hour meter
- Voltage
- Service brake low pressure alarm protection
- Parking brake low pressure alarm protection
- · Travelling speed

CAB

- 2-way adjustable steering column
- Air conditioner
- Coat hook
- Document pocket
- ROPS & FOPS
- Front sunshade
- Mechanical suspension seat with 2 inch seat helt
- One interior & dual exterior rear-view mirrors
- Rubber cab mounts

COOLING SYSTEM

- Aluminum radiator with grille
- Coolant level sight gauge
- · Direct drive fan



OPTIONAL EQUIPMENT

ENGINE

- Engine coolant heating
- Oil bath air filter
- Silencer heat shield

CAB

- Rear windshield wiper
- Fire extinguisher
- Rear-view camera display
- Rotating beacon
- · Rear glass washer
- Cab activity window
- Cab fan
- Driving shed (awning)
- Rear glass electric defrosting

CANOPY

- Fire extinguisher
- Rotating beacon

HYDRAULIC SYSTEM

- AWD
- Blade floating function
- Blade lifting buffer
- Variable hydraulic system

BRAKE SYSTEM

• Brake double circuits

ELECTRIC SYSTEM

- Arrow light
- LEI
- License plate light
- Strip warning light

STEERING SYSTEM

Emergency steering

ATTACHMENTS

- Blades
 - 3,660 mm x 550 mm x 19 mm
 - 3,660 mm x 585 mm x 25 mm
 - 3,660 mm x 610 mm x 19 mm
- 3,660 mm x 635 mm x 25 mm
- 3,960 mm x 635 mm x 25 mm
- Dozer (2,740mm)
- Dozer (2,500mm)
- Ripper
- Scarifier
- Side snow removal device

COOLING SYSTEM

- Hydraulic motor driving fan
- Intelligent system fan speed control thermostat
- Manual multi-speed fan syste
- Reversible fan system

TIRE & RIM

- Front fender
- Rear fender
- Snow chain
- Tire protection chain

REAR AXLE

Wet axle

OTHERS

- Ultrasonic leveling system
- Laser leveling system
- GPS
- Centralized lubrication
- Friction plate gearbox





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