



Cat[®] 24

Motor Grader

The Cat[®] 24 Motor Grader enables you to build and maintain your haul roads while maximizing your mine-site productivity and helping to lower your owning and operating costs. The 24 Motor Grader is designed to help you get more work done in less time while keeping you safe and comfortable.

Performance

- Improved power train allows your operators to maintain constant grading speeds, increasing productivity and extending machine life. Superior torque and lugging capability pull through sudden, short-term load increases.
- Cat C27 engine provides enhanced altitude capabilities with no derate up to 3048 m (10,000 ft) for U.S. EPA Tier 4 Final/EU Stage IV* emission standards and 4572 m (15,000 ft) or equivalent Tier 2/Stage II emissions.
- Standard Automatic Differential Lock unlocks the differential during turns and re-locks when straight for easier operation and improved power train protection, increasing productivity.
- Standard transmission guard provides protection against ground debris, preventing costly repairs.

** Stage IV engines comply with the transition provisions of the EU nonroad emission regulation*

Serviceability

- A redesigned power train provides a 33% increase in rebuild life, saving you time and money.
- Improved preventive maintenance intervals and design features that increase mechanical availability reduce servicing time by 2,400 hours over the first 64,000 hours of use.
- Major components are modular in design, allowing technicians to remove and reinstall them more quickly, reducing machine downtime. Transmission and cooling package removal and installation can be achieved 70% faster than before.
- Fluid Service Center provides a single, easily accessible location at ground level for engine, transmission, and hydraulic oils and coolant. LED indicators show when the compartments are full.
- Fluid levels are also verified electronically by Ok-to-Start and Critically Low Fluid monitoring systems, protecting your machine and preventing unnecessary wear.
- Hoses and electrical harnesses are split at easily accessible bulkhead locations, allowing your service technicians to work with smaller sections easier and faster.
- Brake wear indicators allow technicians to assess brakes without removing brake pods, reducing downtime.

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Safety

- Fall prevention is built in with 15 tie-off points that provide secure PPE anchorage for drivers and technicians. The standard Working at Heights package makes the machine even safer (and easier to use) by adding handrails and hand holds.
- The 24 is fire suppression ready, allowing you to easily install a suppression system more quickly with no compromise of other components. Optional factory-installed system with checkfire control module is available.
- Standard rearview camera and optional front-facing cameras provide the operator with enhanced visibility.
- Standard seat belt indicator ensures safety compliance with visual/audible alerts. The 24 is prewired so that a seat belt usage beacon can be installed easily on top of the cab.

Technology

- Advanced technologies protect the machine and boost performance. These include: engine overspeed/underspeed, second generation steering system, articulation eStop, ripper auto stow, implements lock out, and circle angle limits.
- Standard Cat Grade with Cross Slope automatically controls one side of the blade. This improves operator productivity and haul road quality and durability by helping maintain the desired cross slope for appropriate water drainage.
- The Cat 24 includes Cat Product Link™ to help optimize equipment management, remote monitoring capabilities, machine availability, and component life while reducing both repair cost and the risk of catastrophic failures.

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
POWER TRAIN		
Cat C27 engine	✓	
Air filters, dual with precleaner	✓	
Automatic fan, suction with hydraulic demand	✓	
Cold weather package – arctic hydraulic oil, engine, hydraulic, transmission and coolant heater (240V/30A)		✓
Control blade variable float		✓
Differential, lock/unlock (auto/manual)	✓	
Directional shift management	✓	
Fast fill (fuel, hydraulic, transmission, coolant)	✓	
Fuel priming pump, electric	✓	
ELECTRICAL		
Alarm, back-up	✓	
Working halogen lighting package		✓
Working LED lighting package		✓
OPERATOR ENVIRONMENT		
Adjustable armrest	✓	
Air conditioner and heater sound suppressed, pressurized cab 73 dB(A) ISO 6394:2008 at 70 percent fan speed	✓	
Air horn		✓
Auto articulation		✓
Comfort suspension seat, cloth-covered	✓	
Heated and ventilated seat		✓
Hydraulic implement lockout	✓	
Radio – Bluetooth®		✓
Rearview camera	✓	
ROPS/FOPS	✓	
10-inch digital touchscreen information display	✓	

	Standard	Optional
TECHNOLOGY PRODUCTS		
Cat Grade with Cross Slope	✓	
Ripper auto stow	✓	
SAFETY AND SECURITY		
Circle drive slip clutch	✓	
Fire suppression ready	✓	
Front-facing cameras (two)		✓
Ground-level engine shutdown	✓	
Secondary steering	✓	
OTHER STANDARD EQUIPMENT		
Blade lift accumulators	✓	
Push plate-counterweight	✓	
S•O•S SM ports, engine, hydraulic, transmission, coolant, fuel	✓	
DRAWBAR CIRCLE MOLDBOARD		
7.3 m (24 ft) Moldboard	✓	
8.5 m (28 ft) Moldboard		✓
Flat Cutting Edge	✓	
Serrated Cutting Edge		✓

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Technical Specifications

Engine

Engine Model	Cat C27	
Emissions	U.S. EPA Tier 4 Final/ EU Stage IV or equivalent to Tier 2/Stage II emissions	
Net Power	399-518 kW	535-694 hp
Displacement	27.0 L	1,649.5 in ³
Bore	137.2 mm	5.4 in
Stroke	152.4 mm	6.0 in
Maximum Torque – ISO 9249:2007	3277 N•m	2,417 lbf-ft
Standard Capability	50° C	122° F

- Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator with engine speed at 1,800 rpm.

Weights – Tier 4/Stage IV

Weight – Typically Equipped

Total	74 567 kg	164,392 lb
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- For machines not equipped with Tier 4 Final emission engine, subtract 40 kg (88.2 lb) from the total weight. Typically equipped operating weight is calculated with a full fuel tank, coolant, lubricants, operator, 29.5R29 tires, 7.3 m (24 ft) moldboard and other commonly ordered items.

Moldboards

Width

Standard	7.3 m	24 ft
Optional	8.5 m	28 ft
Height	1067 mm	42.0 in

Drawbar and Circle

Circle Centershift			
Right	437 mm	17.2 in	
Left	804 mm	31.7 in	
Moldboard Sideshift			
Right	1150 mm	45.3 in	
Left	970 mm	38.2 in	
Maximum Blade Position Angle		55 degrees	
Maximum Shoulder Reach Outside of Tires			
Right	3200 mm	126 in	
Left	3175 mm	125 in	
8.5 m (28 ft) Moldboard			
Right	3810 mm	150 in	
Left	3785 mm	149 in	

Air Conditioning

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warning Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO₂ equivalent of 2.288 metric tonnes.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com.

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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