

RM500

RECLAIMER / STABILIZER



U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V

Gross Power (SAE J1995)

Operating Weight

407 kW (546 hp)

28 387 kg (62,583 lb)

Brazil MAR-1, equivalent to U.S. EPA Tier 3 and EU Stage IIIA

Gross Power (SAE J1995)

Operating Weight

406 kW (544 hp)

26 225 kg (57,817 lb)

Cutting / Mixing Width

2438 mm (96 in)



RM500

RECLAIMER / STABILIZER

The Cat® RM500 Reclaimer/Stabilizer features a robust and efficient design that is simple to operate, making this durable industry workhorse an excellent choice. High production and ideal mix quality go hand-in-hand with low operating and maintenance costs. Available options provide the ability to adapt to a wide range of full-depth reclamation and soil stabilization applications.



PRODUCTIVE. INTUITIVE. POWERFUL.

The Cat® RM500 is a purpose-built machine that combines ease of use, performance and reliability for full-depth reclamation and soil stabilization applications.

- + BUILT-IN FEATURES HELP MONITOR MIX QUALITY
- + EASY TO OPERATE AND SERVICE
- + ROBUST PROPEL AND ROTOR DRIVE SYSTEMS



EASY TO SERVICE

Ground-level service points and an auto-reversing cooling fan aid in reducing daily maintenance time and advanced system diagnostics inform the operator about machine performance.

COMFORTABLE OPERATOR ENVIRONMENT

The ergonomic operator station is designed for comfortable visibility and is equipped with features and controls that help simplify operation.

VERSATILE

An efficient rotor drive system, full-time All-wheel drive, and options help provide the versatility needed for a wide range of applications.

The purpose-built cab is designed so everything is within reach, and within view, to maximize comfort and productivity. A quiet and spacious operating environment helps reduce the fatigue, stresses, sounds, and temperatures of a demanding job.



DESIGNED FOR THE OPERATOR

A heated and air-conditioned cab provides a comfortable work environment and protects the operator from the elements. The heated suspension seat adjusts for optimal operator comfort.



EASY TO OPERATE

Controls are simple, easy-to-learn, ergonomically located and grouped by function for quick and easy access. The most-used functions during operation are conveniently located on the joystick. Hand-wheel steering assists in delivering precise maneuverability.



COMFORTABLE VISIBILITY

A full left-to-right sliding cab provides optimal sight lines to the rotor chamber and wheel edges on either side of the machine. The seat rotates 90 degrees in both directions allowing operators to find the most comfortable position for visibility.



EXTRA EYES

Remote cameras augment performance and safety and are viewed on an in-cab display. Front and rear cameras enhance visibility and assists with obstacle avoidance. A camera mounted above the rear mixing chamber door aids in monitoring mix quality.

COMFORT AND CONTROL

HIGH-PRODUCTION WORKSPACE



BUILT-IN FEATURES

TO HELP MANAGE MIX QUALITY



STAY INFORMED

An easy-to-read indicator on the touch screen display keeps the operator informed of the front and rear mixing chamber door positions so they can instantly modify material gradation when necessary.

CONSISTENT RESULTS

The Exit and Return-to-cut features save time and maintain consistency with the simple tap of a button. This allows operators to save and recall rotor depth when moving from one cut to another.

ADDED EFFICIENCY

Features like Automatic Load Control and advanced electronic controls aid in delivering ideal mix quality when working in either forward or reverse. Automatic Load Control monitors demand on the engine and adjusts propel speed to help maintain maximum productivity.



EFFICIENT POWER

FOR THE TOUGHEST JOBS

CAT® ENGINE

The RM500 is powered by a turbocharged Cat C15 6-cylinder engine that meets regional emission standards. Cat machine systems are designed to match the Cat engine, with a focus on maximizing engine life. Our engines feature Cat electronics, fuel injection, and air-management systems, applying proven technology to help you achieve productivity goals.

COOLING EFFICIENCY

A robust on-demand, variable-speed fan provides cool air intake to help maximize fuel efficiency and minimize airborne dust on the jobsite. Ambient air is drawn directly into the cooling package and out the front of the machine in an upward direction. The fan automatically runs cycles in reverse to prevent dust and debris from building up and blocking air flow. Removing built-up material helps keep the system running efficiently and extends cleaning and maintenance intervals.

PERFORMANCE

YOU CAN COUNT ON

A simple and durable rotor drive system is engineered to perform in many applications and utilizes proven components and a Cat Powershift transmission. The rotor driveline is protected by a heavy-duty shear disc or optional torque limiter. With a no-clutch design and adjustment-free chains that are continuously lubricated, maintenance time is reduced, so you can spend less time on service and more time on the job.





DESIGNED FOR TRACTION

OPERATE WITH CONFIDENCE

Standard electronically-controlled all-wheel drive and four steering modes help maximize traction and mobility even in poor conditions.

ALL-WHEEL DRIVE

The All-wheel drive system continually monitors and balances hydraulic pressure at each wheel for maximum traction. Four independent pumps deliver dedicated flow to each wheel motor, providing efficient power and traction to propel the machine in the most extreme conditions.

STEERING MODES

The RM500 has four steering modes: Front Steer, Rear Steer, Crab Steer and Coordinated Steer. Having the ability to change the steering characteristics allows operators to easily maneuver around the jobsite.

ENHANCE CAPABILITIES WITH OPTIONAL SPRAY SYSTEMS



Computerized water and emulsion additive systems accurately monitor application rates for precise distribution. Both water and emulsion systems can be installed to allow simultaneous or individual system operation. Spray systems can be easily set up to deliver liquid additives according to specifications:

- + Manual or automatic
- + Volume per minute
- + Volume per m² (yd²)
- + Percent of material density



WATER SPRAY SYSTEMS

The Water Spray Systems automate the addition of metered water to the mixing chamber, allowing the machine to mix the specified measured amount into the materials. It delivers a wide range of variable flow rates with nozzles that produce an optimal spray pattern at high, medium and low flow ranges. An Ultra Low-flow Water Spray System is available for low volume applications. For water use only—not for use with emulsions.



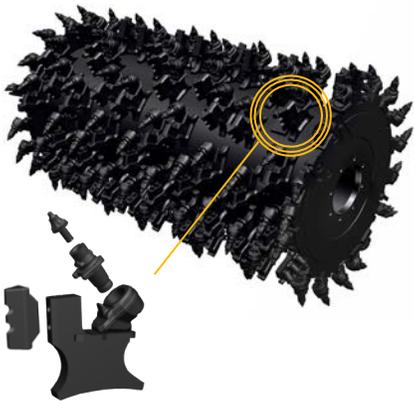
EMULSION SPRAY SYSTEM

The Emulsion Spray System automates the addition of metered emulsion to the mixing chamber, allowing the machine to mix the specified measured amount into the materials. This pump unit provides an infinitely variable volume. The spray bar can be fitted with one of three nozzle sizes to achieve a proper fan pattern.

ROTORS

DESIGNED FOR EFFICIENT PRODUCTION

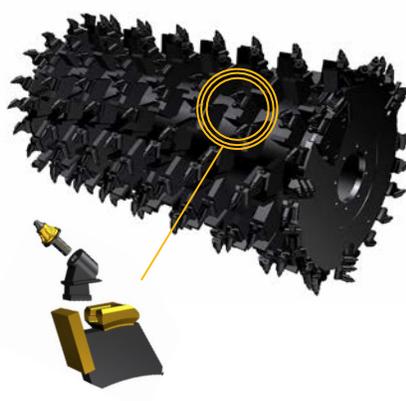
Cat rotors are engineered to produce high-quality results and work efficiently on a variety of reclamation and stabilization projects.



SYSTEM K

The System K rotor is designed to be abrasion-resistant and deliver high quality results on a wide variety of reclamation and stabilization projects. Tools are precisely placed on the rotor to aid in delivering ideal material sizing and homogeneous mixing results. The exclusive Caterpillar fastener-free toolholder design helps simplify daily maintenance. A symmetrical block aids in material sizing, protects the baseblock and toolholder from wear and can be reversed for extended component life.

NUMBER OF TOOLS: 156 carbide-tipped bullet tools with dual taper, fastener-free tool holders



UNIVERSAL

The Universal rotor is designed to produce maximum breakout force in deep asphalt cuts. It also performs well in soil stabilization applications. The kicker paddle design provides material movement and suspension in the mixing chamber and includes a breaker bar for gradation in full-depth reclamation and soil stabilization applications. Triple-tree tool placement on the rotor edges helps improve side cutting when maneuvering. Choose a 20 mm or 22 mm shank size.

NUMBER OF TOOLS: 200 carbide-tipped bullet tools with bolt-on breakaway tool holders



COMBINATION

Designed primarily for stabilization applications in cohesive soils, the Combination rotor excels in deep-cut soil mixing applications where pulverization and gradation is of lesser importance than higher working speeds. It can also handle light reclamation applications where the asphalt layer is thin and deteriorated. Replaceable end rings protect the mandrel, extending component life.

NUMBER OF TOOLS: 114 carbide-tipped bullet tools with bolt-on breakaway tool holders

ROTOR APPLICATIONS

Cat rotors are capable of producing good results in many applications, but each is designed to provide maximum efficiency and productivity in specific applications. This chart provides general guidance for choosing a rotor.

KEY

- ✓ Ideal choice for specific application
- Acceptable, but not ideal
- ✗ Not recommended for this application

JOB TYPE	APPLICATION	SYSTEM K	UNIVERSAL 16	UNIVERSAL 18	COMBINATION
FULL-DEPTH ASPHALT					
RECLAMATION	Thin Asphalt Layer 25-75 mm (1-3 in)	✓	✓	✓	○
	Medium Asphalt Layer 75-175 mm (3-7 in)	✓	✓	✓	○
	Thick Asphalt Layer 175-250 mm (7-10 in)	✓	✓	○	✗
MIXING / STABILIZATION					
SOIL	Granular Soils	✓	✓	✓	○
	Granular with Rocks < 130 mm (5 in), Debris	✓	✓	✓	○
	Light Clay	✓	○	○	✓
	Heavy Clay	✓	✓	○	✓

CUTTING BITS

Choosing the right cutting bit for your application can optimize the efficiency of the machine, resulting in more production with ideal material sizing and mixing quality. This chart identifies cutting bits that are recommended for common applications. For additional cutting bit offerings and alternatives, consult your local Cat dealer.



DESCRIPTION	Light Duty	Heavy Duty (Higher Carbide Content)	Higher Impact (Valve Seat Tip)	Higher Impact
SHANK SIZE	20 mm	20 mm	20 mm	22 mm
PART NUMBER	578-4416	561-8135	564-1260	533-5760



SIMPLE SERVICE

MAXIMIZE UPTIME AND PRODUCTION

The RM500 is designed to make maintenance easier with ground level access to routine maintenance items and extended service intervals. Built-in diagnostics monitor machine systems and alert the operator of performance issues and provide troubleshooting information. Your Cat dealer is ready to help with service options and convenient parts availability for both the engine and your machine.

SERVICE MADE EASY

Visual gauges, indicators and remote grease fittings help simplify daily maintenance and Scheduled Oil Sampling (S•O•SSM) monitors fluid conditions. An on-demand, variable-speed cooling fan runs periodic cycles in reverse to clear debris from the cooling package, extending cleaning and maintenance intervals.

ADJUSTMENT-FREE COMPONENTS

A self-lubricating rotor chain drive and the Cat Powershift transmission are adjustment-free. The rotor drive system automatically lubricates the bearings, eliminating routine greasing.

CAT LINK TECHNOLOGY

TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

Cat equipment management telematics technology helps take the complexity out of managing your jobsites – by gathering data generated by your equipment, materials, and people and serving it up to you in customizable formats.



VISIONLINK™

VisionLink™ takes the guesswork out of managing your entire fleet – regardless of size or equipment manufacturer.* Review equipment data from your desktop or mobile device to maximize uptime and optimize assets. With interactive dashboards, VisionLink makes it easier for operations of all sizes to make informed decisions that lower costs, simplify maintenance, and improve safety and security on your jobsite. With different subscription-level options, your Cat dealer can help you determine what you need to connect your fleet and manage your business.

- + 24/7 Fleet Monitoring
- + Mixed Fleet Management
- + Optimize Fleet Utilization
- + Track Assets by Location
- + View Asset Health Status
- + Review Inspection Reports
- + Assign Maintenance Tasks
- + Minimize Downtime
- + Request Service and Order Parts
- + Download Summary Reports

* Data field availability can vary by equipment manufacturer and is provided through an application programming interface (API). VisionLink subscription required. Availability may vary by region, consult your Cat Dealer for more details.



CAT INSPECT

Cat Inspect is a mobile application that allows you to easily perform digital preventative maintenance checks, inspections, and daily walkarounds. The app includes machine-specific Preventive Maintenance (PM) checklists to perform service intervals as recommended in the Operation and Maintenance Manual. Inspections can easily be integrated with other Cat data systems like VisionLink so you can keep a close eye on your fleet.

TECHNICAL SPECIFICATIONS

POWERTRAIN

Engine Model	Cat® C15	
Emissions	U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V	
Gross Power @ 2,100 rpm – SAE J1995	407 kW	546 hp
Engine Power @ 2,100 rpm – ISO 14396	402 kW	539 hp
	Brazil MAR-1, equivalent to U.S. EPA Tier 3 and EU Stage IIIA	
Gross Power @ 2,100 rpm – SAE J1995	406 kW	544 hp
Engine Power @ 2,100 rpm – ISO 14396	403 kW	540 hp
Build Number	02A	
Maximum Operating Speed	65 m/min	213 ft/min
Maximum Travel Speed	10.5 km/h	6.5 mph

• Advertised power is tested per the specified standard in effect at the time of manufacture.

MACHINE WEIGHT

Tier 4 Final, Stage V, Korea Stage V

Operating	28 387 kg	62,583 lb
Maximum	31 380 kg	69,181 lb

Brazil MAR-1, equivalent to Tier 3 and Stage IIIA

Operating	26 225 kg	57,817 lb
Maximum	29 219 kg	64,416 lb

- Operating weight is approximate and includes base machine, no options, coolant, lubricants, System K rotor, 50% full fuel tank, 50% full DEF tank (if installed) and 75 kg (165 lb) operator.
- Maximum weight is approximate and includes base machine, all options, coolant, lubricants, System K rotor, full fuel tank, full DEF tank (if installed) and 75 kg (165 lb) operator.

CUTTING SYSTEM

3-Speed Direct Drive, Chain Driven	
Rotor Speeds	110 / 152 / 205 rpm
Cutting Width	2.44 m 8 ft
Maximum Cutting Depth	508 mm 20 in
<i>Maximum cutting depth determined by rotor selection.</i>	

SERVICE REFILL CAPACITIES

Fuel Tank	1056 L	279 gal
Diesel Exhaust Fluid (DEF) Tank <i>Tier 4 Final, Stage V, Korea Stage V</i>	46 L	12.2 gal
Cooling System	70 L	18.5 gal
Engine Oil	52 L	13.7 gal
Hydraulic Tank	87 L	23 gal

ROTORS

	System K		Universal 16		Universal 18		Combination	
Cutting Width	2438 mm	96 in	2438 mm	96 in	2438 mm	96 in	2438 mm	96 in
Diameter (over bits)	1450 mm	57 in	1375 mm	54 in	1525 mm	60 in	1625 mm	64 in
Maximum Cutting Depth	444 mm	17.5 in	406 mm	16 in	457 mm	18 in	508 mm	20 in
Weight	4014 kg	8,851 lb	4167 kg	9,188 lb	4587 kg	10,114 lb	3096 kg	6,827 lb
Number of Bits	156		200		200		114	
Bit Impact Spacing	20 mm	0.8 in	15 mm	0.6 in	15 mm	0.6 in	31 mm	1.22 in
Tool Tip Height	300 mm	11.8 in	262.5 mm	10.3 in	300 mm	11.8 in	350 mm	13.8 in
Bit Shank Diameter	20 mm		20 mm		20 mm		22 mm	

AIR CONDITIONING

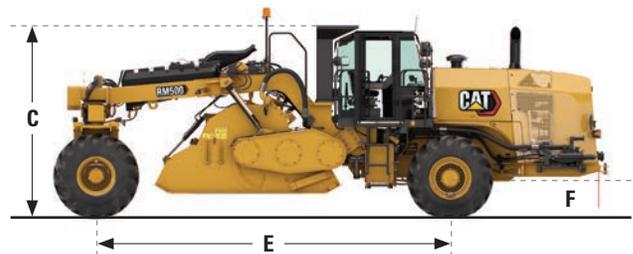
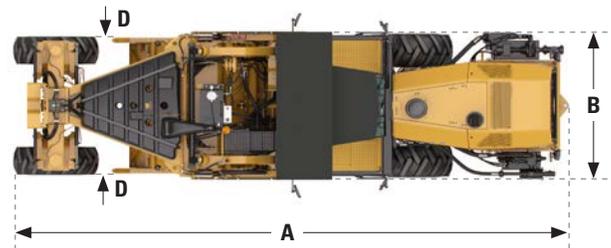
If equipped with R134a (Global Warming Potential = 1430), the system contains 1.9 kg (4.2 lb) of refrigerant which has a CO₂ equivalent of 2.717 metric tonnes (2.995 tons).

SPRAY SYSTEM FLOW RATES

Water Spray System	114-1136 lpm	30-300 gpm
Ultra Low Flow Water Spray System	60-600 lpm	16-160 gpm
Emulsion System	114-946 lpm	30-250 gpm

DIMENSIONS

A Transport Length (maximum)	10.32 m	33.83 ft
B Transport Width	2.98 m	9.58 ft
C Transport Height	3.59 m	11.78 ft
D Cutting Width	2.44 m	8 ft
E Wheelbase	6.55 m	21.5 ft
F Ground Clearance	506 mm	19.9 in
Inside Turning Radius	4.33 m	14.2 ft



STANDARD & OPTIONAL EQUIPMENT

Your local Cat dealer can help configure a machine to meet your application requirements.

OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Adjustable armrests	●	
Heated suspension seat	●	
180° rotating operating station	●	
Audio-ready with speakers	●	
Full-width sliding cab with heat and air conditioning	●	
Access ladder, right and left side	●	
High-visibility retractable seat belt	●	
Mini-wheel steering control	●	
Multifunction propel lever	●	
Steering guides	●	
LCD touch screen operator interface	●	

POWERTRAIN	STANDARD	OPTIONAL
Air to Air Aftercooler (ATAAC)	●	
Dual element air cleaner with pre-cleaner	●	
Cat® Extended Life Coolant (ELC) with protection to -37° C (-35° F)	●	
Auto-reversing, on-demand cooling fan	●	
Automatic Load Control	●	
Four steering modes	●	
All-time All-wheel drive	●	
Electronic differential	●	
Oil-bath brake system	●	
Powertrain guard	●	
Cat Bio HYDO™ Advanced biodegradable hydraulic oil		○
CE certificate		○

ELECTRICAL SYSTEM	STANDARD	OPTIONAL
150-Amp alternator	●	
24-Volt charging system	●	
Automotive-type fuse system	●	
Remote start/charge receptacle	●	
1365 CCA maintenance-free batteries (2)	●	

SPRAY SYSTEMS	STANDARD	OPTIONAL
Water spray system		○
Ultra low-flow water spray system		○
Emulsion spray system		○
Folding telescoping push bar		○

ROTOR DRIVE SYSTEM	STANDARD	OPTIONAL
Maintenance-free drive shafts	●	
Self-lubricating roller chain and bearings	●	
Shear disk driveline protection	●	
Torque limiter driveline protection		○
Automatic Return-to-cut	●	
Powershift 3-speed transmission	●	
Three rotor speeds	●	
Variable volume mixing chamber	●	
Rotor – System K		○
Rotor – Universal 16		○
Rotor – Universal 18		○
Rotor – Combination		○
Bolt-on counterweight – 1600 kg (3500 lb)		○

SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Grouped filters with ground level access	●	
Cat VisionLink™	●	
Remote access drains	●	
Scheduled Oil Sampling (S-O-S SM) ports	●	
Fluid level sight gauges	●	
Toolbox and two bit bucket trays	●	
Additional toolbox		○

SAFETY	STANDARD	OPTIONAL
Back-up alarm	●	
Remote cameras (front, rear and rear rotor chamber door)	●	
Ground level emergency shutdown switch	●	
Horn (front and rear)	●	
ROPS	●	
Platform handrails and guardrails	●	
Mirrors	●	
Halogen working lights	●	
Roading lights		○
Folding LED safety beacon		○



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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QEHQ3217 (02/2026)
Build Number: 02A
Global (excluding China, Japan, Saudi Arabia)

