

RM500

Rotary Mixer



Cat® C15 Engine with ACERT™ Technology

Gross Power (SAE J1995)	403 kW	540 hp
Rotor Width	2438 mm	96"
Rotor Depth (maximum)	508 mm	20"

Operating Weight (with ROPS, Cab and Universal rotor)

28 145 kg	62,060 lb
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Productivity, Serviceability and Comfort in a Durable Package

The new RM500 offers enhanced production capabilities, optimized performance, simplified service and exceptional operator comfort.

C15 Engine with ACERT™ Technology

ACERT Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions. The C15 engine with ACERT Technology provides clean burning power. Electronically controlled on-demand variable speed cooling fan provides the lowest overall noise levels and high ambient operation capability.

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Operator's Station

Ergonomic design emphasizes comfort, visibility and easy operation. Isolated operator's station with heavy-duty rubber mounts reduce machine vibration transmitted to the operator. The hydraulically assisted platform slides side-to-side to an infinite number of positions. A switch on the side console allows the operator to select any desired position for good visibility and comfort.

The fully adjustable steering column and rotating seat are positioned to provide an optimal operating position. Machine controls are grouped and conveniently located to enhance operator productivity and reduce fatigue.

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Performance and reliability you expect.

The RM500 combines superior performance and reliability to achieve the most demanding job specifications while maximizing machine uptime. With many enhanced features and options, the RM500 is designed to work well in both full depth reclamation and soil stabilization applications.

Cab

The optional cab increases machine utilization, provides greater year-round comfort and offers reduced interior sound levels. The pressurized cab slides side-to-side and includes a rotating cloth seat, left and right side doors, tinted windows, front and rear windshield wipers, heater/defroster and air conditioning. Sound absorbing floor mat reduces sound and machine vibration transmitted to the operator.

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Dual Propel Pumps

The dual pump propel system provides separate balanced hydraulic flow to both the rear drive motors and the front drive motors to propel the machine with full-time all-wheel drive. This system enables the operator to achieve superior tractive effort for soil stabilization applications that require maximum cutting depth and that are also high in moisture content.

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Rotor Drive

A Caterpillar® powershift transmission drives the rotor and provides three rotor speeds for maximum performance in a variety of materials and cutting depths. Heavy-duty shear disc or optional torque limiter protects rotor drive components from torsional stress and shock loads.

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Mixing Chamber

Mixing chamber allows the rotor to move independently so that the capacity of the chamber actually increases in deeper cuts to allow better material mixing and excellent gradation. Machine weight is well distributed to provide stability in the cut for uniform depth control.

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Rotor Options

With a choice of three rotor options, the RM500 can be configured for different applications and depth specifications. The universal rotor is intended primarily to pulverize asphalt layers. The soil rotor is intended primarily for soil stabilization. The combination rotor is intended primarily for use in soil stabilization with secondary application in light cuts of asphalt reclamation.

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Serviceability

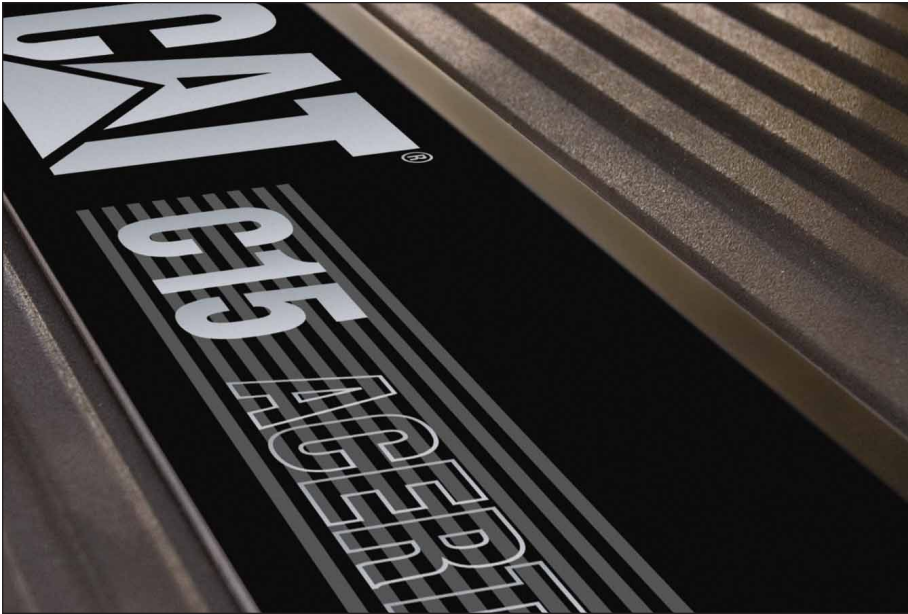
The one-piece fiberglass hood tilts forward for exceptional access to the engine and cooling system. Daily service points are accessible from ground level and are grouped on one side of the engine. Hinged ground level side panels allow total engine access. Hinged service doors open wide for access to power train and rotor drive components. The rotor hood tilts forward to allow access to the rotor and cutting tools. Ground level side access doors on the rotor hood provide convenient access for easy cutting tool removal and replacement.

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C15 Engine with ACERT™ Technology

A combination of innovations working at the point of combustion, ACERT Technology optimizes engine performance while meeting U.S. EPA Tier 3 and European EU Stage IIIa emission regulations for off-road applications.



Cat® C15 Engine with ACERT Technology

The C15 engine provides a full-rated gross power (SAE J1995) of 403 kW (540 hp) at 2000 rpm with a torque of 2356 Nm (1738 lb/ft). The combination of large displacement and high torque allow the RM500 to propel through the toughest materials.

Mechanically Actuated Electronically Controlled Unit Injection (MEUI)

The MEUI fuel system is a unique system that combines the technical advancement of an electronic control system with the simplicity of direct mechanically controlled unit fuel injection. The MEUI system excels in its ability to control injection pressure over the entire engine operating speed range. These features allow the C15 to have complete control over injection timing, duration and pressure.

Multiple Injection Fuel Delivery

Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the combustion cycle lowers combustion chamber temperatures, which generates fewer emissions and optimizes fuel combustion, translating into more work output for your fuel cost.

C15 Cylinder Block

The cylinder block is a one-piece, grey iron block that features generous ribbing for stiffness and heavy bearing bulkheads for rigidity and strength as the crankshaft turns. This new design supports the engine's higher compression ratios and increases its power density. The incorporation of straight-thread, o-ring connection points reduces the loss of engine oil and fluids.

High Cylinder Pressures

High cylinder pressures combined with tightly controlled tolerances promote extremely efficient fuel burn, less blow by and lower emissions.

Service, Maintenance and Repair

Easier service, maintenance and repair is accomplished by monitoring key functions and logging critical indicators. Advanced electronic diagnostic capabilities are possible using Cat Electronic Technician.

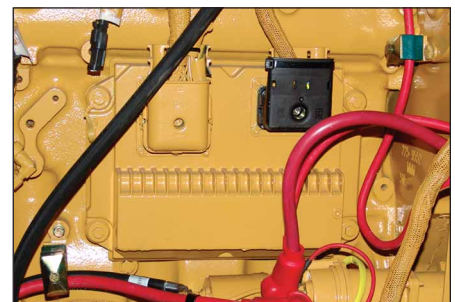


Turbocharged and Air-to-Air Aftercooling (ATAAC)

The turbocharged air-to-air aftercooling system provides high horsepower with increased response time while keeping exhaust temperatures low for long hours of continuous operation.

Air-to-Air Aftercooling

Air-to-air aftercooling keeps air intake temperatures down and in concert with the tight tolerance combustion chamber components, maximizes fuel efficiency and minimizes emissions. New turbocharger, unique cross-flow head, single, front driven, overhead cam and a more efficient intake manifold generate significant improvements in air flow. This generates significant improvements in efficiency and reduced emissions.



ADEM™ A4 electronic Control Module

The ADEM A4 electronic control module manages fuel delivery, valve timing and airflow to get the most performance per gallon (liter) of fuel used. The control module provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It keeps track of engine and machine conditions while keeping the engine operating at peak efficiency.

Operator's Station

Ergonomic design emphasizes operator comfort, visibility and easy operation. The platform slides side-to-side to increase versatility and productivity while reducing operator fatigue.



The side console features a padded arm rest, the four mode steering switch, speed control dial, propel lever, rotor elevation, front and rear rotor hood door switches, rear steering switch and sliding operator's station switch.

Hydraulically assisted sliding platform allows the operator to position the platform to any desired position to provide good visibility to both sides of the machine. Platform can be accessed from either side of the machine.

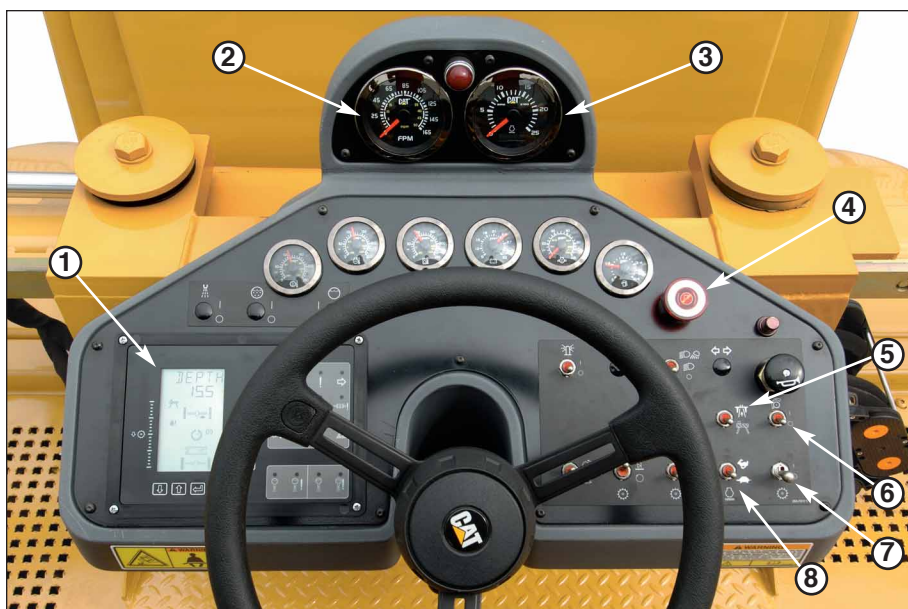
Comfortable and durable seat has adjustable fore/aft positioning, bottom cushion height, suspension stiffness and flip-up arm rests. Seat and side control console rotates to seven positions to enhance operator comfort.

Controls are conveniently located for easy one-handed control while seated. Propel lever with center detent allows forward/reverse operation and variable machine speed.

Adjustable steering column offers telescoping and tilt features to provide a comfortable operating position for the operator.

Operational Controls

All machine controls, switches and gauges are positioned to minimize operator fatigue and maximize productivity.



- | | |
|--------------------------------|---------------------------------|
| 1 Electronic Monitoring System | 5 Propel Speed Selector Switch |
| 2 Ground Speed Indicator | 6 Load Control Selection Switch |
| 3 Engine Tachometer | 7 Rotor ON/OFF Switch |
| 4 Park Brake Switch | 8 Engine Speed Switch |

Clear instrumentation includes gauges for engine oil pressure, engine coolant temperature, rotor drive transmission oil temperature, hydraulic oil temperature, charging system voltage and fuel level.

Large analog gauges display propel ground speed, engine rpm, engine hour meter and fault codes.

Electronic Monitoring System constantly monitors input signals from sensors and switches in various machine systems and alerts the operator if a problem does occur.

Load control selection switch to control propel speed manually or automatically by the ECM.

Automatic steering control provides four steering modes for maneuvering in tight quarters: front steer only, crab steer, coordinated steer and rear steer only.

Cab Option

Optional cab can increase machine utilization and provides greater year-round comfort in extreme environment conditions. The cab is fully pressurized and includes air conditioning.



Iso-mounted cab is pressurized to keep noise, dust and the elements out and comfort in.

Items included with cab are: rotating cloth seat, left and right side lockable doors, tinted glass, air conditioning, heater/defroster, dual front and rear windshield wipers and sound absorbing floor mat.

Additional operator comforts include two cup holders and a 12-volt power receptacle. The cab is also radio-ready and includes a power converter, antenna with cable, two speakers and a headliner location for mounting radio.

The cab offers an exceptional viewing area to the front tire edge, mixing chamber and to the rear wheels.

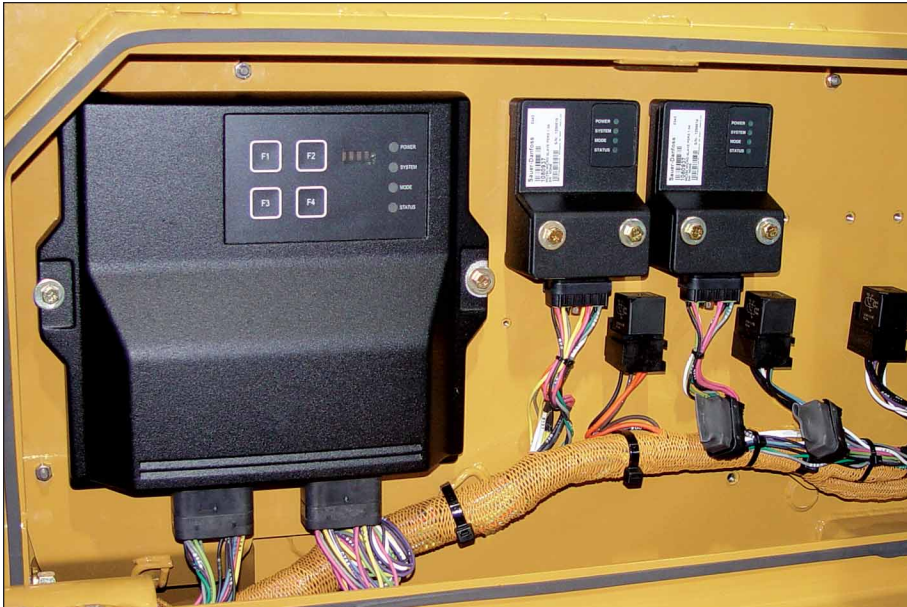


The following features further enhance operator comfort:

- 1) Heating/air conditioning controls.
- 2) Left and right access doors.
- 3) Rotating cloth seat.
- 4) Sound absorbing headliner.
- 5) Tinted glass.
- 6) Windshield wipers.
- 7) Cushioned floor mat.
- 8) Dual front mounted speakers.
- 9) Radio-ready mount.
- 10) Heavy-duty isolation mounts.

Electronic Control Modules

Reliable field-proven technology makes machine operation simple and self-diagnostics simplifies troubleshooting.



Reliable field-proven technology provides maximum productivity and simplifies troubleshooting.

Electronic Control Modules (ECM) receives input signals from sensors in the engine, propel, steering and rotor drive systems which monitor current operating conditions.

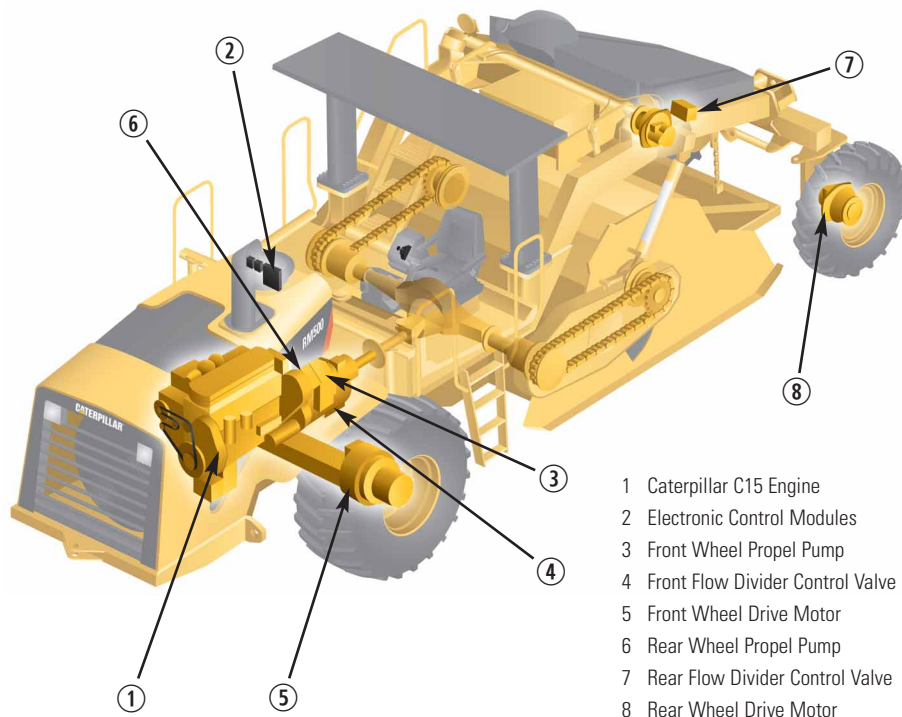
Self-diagnostics provides information for troubleshooting and alerts the operator about potential system problems.

Automatic load control adjusts propel speed so that engine speed does not drop below 1900 rpm. Machine always works at peak efficiency for maximum output.

Automatic rotor depth control provides consistent quality and performance.

Dual Pump Propel System

Hydrostatic drive provides balanced full-time tractive effort to each drive motor.



- 1 Caterpillar C15 Engine
- 2 Electronic Control Modules
- 3 Front Wheel Propel Pump
- 4 Front Flow Divider Control Valve
- 5 Front Wheel Drive Motor
- 6 Rear Wheel Propel Pump
- 7 Rear Flow Divider Control Valve
- 8 Rear Wheel Drive Motor

Dual propel pumps provide separate, balanced flow to the front drive motors and rear drive motors. Provides superior tractive effort in soft underfoot conditions.

Load sensing system controlled by the ECM, matches propel speed to load on the engine.

Two speed ranges allow the machine to operate at either maximum torque to propel the machine through the toughest conditions, or a faster speed for moving around the job site.

Infinitely variable machine speeds determined by the propel lever and speed control dial.

Dual flow divider control valves provide equal traction to the front and rear drive motors independently to propel the machine with true four wheel drive.

All-Wheel Drive

A separate hydraulic pump provides hydraulic flow to large displacement motors on each rear wheel. The system is designed to propel the machine with full-time all-wheel drive.



Dual propel pump system: one pump is dedicated to drive the front wheels, while the second propel pump is dedicated to drive the rear wheels.

Increased tractive effort for those tough soil or reclamation jobs.

A separate flow divider control valve directs hydraulic flow to each rear wheel to provide balanced tractive effort in slippery conditions.

High torque drive motors and planetaries on rear wheels makes this a true four-wheel drive machine.

Large rear tires with an aggressive tread and large footprint propels the machine easily in the most severe applications.

Rotor Drive

Maximum production with high reliability. A Caterpillar powershift transmission provides three rotor speeds for maximum performance in a variety of materials and cutting depths.



A Cat powershift transmission drives the rotor and is sized to handle tough cutting and deep mixing.

Heavy-duty gear reducers with four planetary carriers provide excellent rotor drive reliability.

Rugged drive chains provide efficient, continuous power to the rotor. Single strand heavy-duty chain resists breakage.

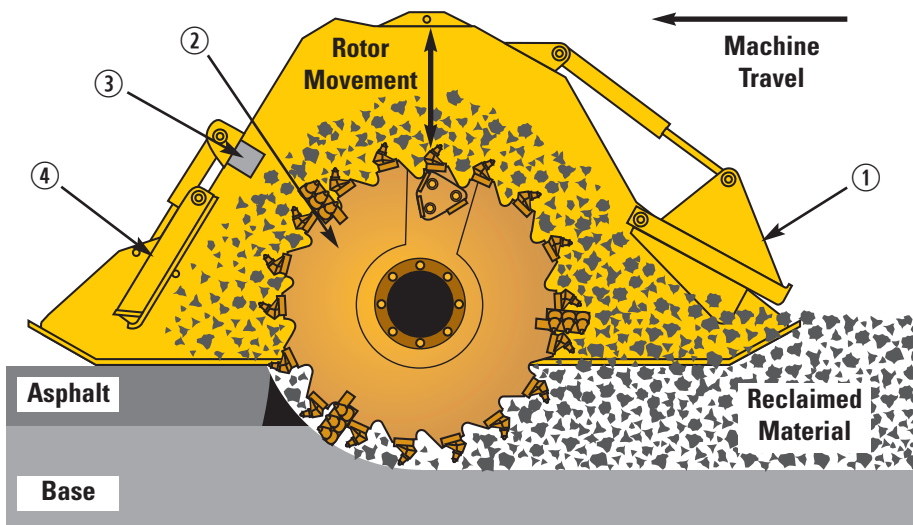
Three rotor speeds for maximum performance in a variety of materials and cutting depths. First speed is used primarily for pulverizing the material. Second and third rotor speeds can be used as blending or mixing passes.

High capacity rotor driveshafts and maintenance-free universal joints.

Heavy-duty shear disc or optional torque limiter protects rotor drive components from torsional stress and shocks loads.

Mixing Chamber

Mixing chamber is a heavy-duty hood with large volume to handle deep mixing. Ensures depth control, proper sizing and thorough blending of reclaimed materials.



- 1 Fully Adjustable Rear Door
- 2 Universal Rotor (shown)
- 3 Breaker Bars (if equipped)
- 4 Fully Adjustable Front Door

Mixing chamber allows the rotor to move independently so that the capacity of the chamber actually increases in deeper cuts to allow better material mixing.

Mid-machine rotor uses total machine weight to help keep rotor steady in the cut for uniform depth control.

Bi-directional mixing capability increases machine efficiency.

Large heavy-duty breaker bars help achieve uniform sizing.

Hydraulically adjustable rear door for optimum control of gradation and material uniformity.

Hydraulically adjustable front door allows more precise sizing control when operating in the reverse direction.

Side access doors enable quick and simple replacement of cutting tools on rotor ends.

Hydraulic Front Door

Heavy-duty front door is ideal for peak efficiency on soil stabilization, bio-remediation or mixing passes on asphalt reclamation.



Hydraulically operated front door allows the operator to control the opening of the front door from the operator's station.

Dual hydraulic cylinders offer increased lifting force and precise control of the front door.

The front door raises parallel to the cutting surface to prevent the door from plowing material in harsh soil stabilization conditions.

Forward or reverse operation increases machine versatility in soil stabilization.

Visual site gauge on rotor hood displays door position and allows the operator to precisely control the opening of the front door.

Rotor Selection

Choice of three rotor designs for different applications and depth specifications. Tools are mounted in drive-in, knock-out holders for quick and easy replacement.

Universal Rotor

Designed primarily for use in asphalt reclamation.

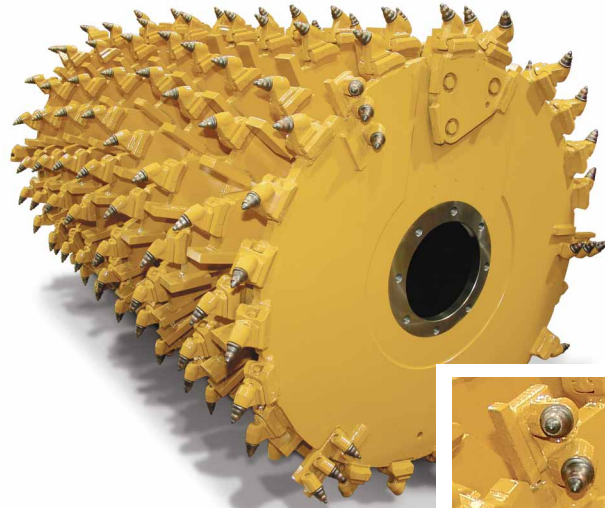
200 point-attack carbide-tipped tools are mounted in drive-in, knock-out bolt-on tool holders and arranged in a chevron pattern for maximum breakout force.

Breakaway design tool holders allow for fast replacement without welding.

Kicker paddles placed on every stand-off improves mixing in soil stabilization and provides more efficient material movement in full depth reclamation.

Triple-tree tool placement on rotor ends cleans up loose material and reduces wear on drum when maneuvering in the cut.

Maximum depth is 406 mm (16").



Triple-tree tool placement.

Soil Rotor

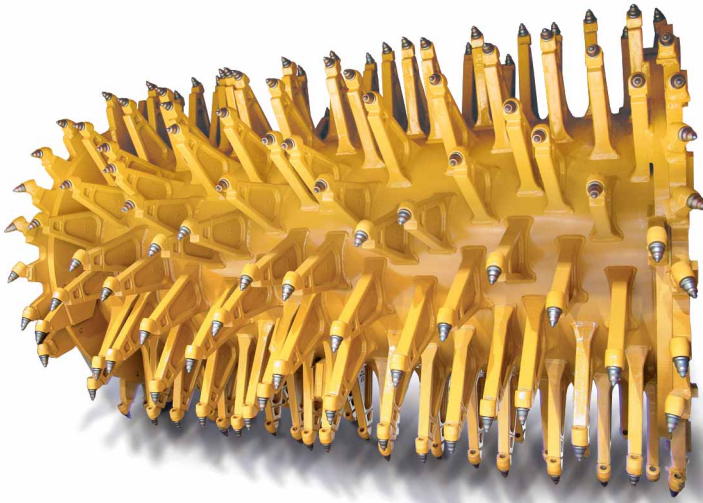
Designed primarily for use in soil stabilization.

238 point-attack carbide-tipped tools are mounted in drive-in, knock-out weld-on tool holders and arranged in a chevron pattern for maximum breakout force.

Versatile applications – blends additives with cohesive, semi-cohesive or granular materials.

Replaceable end rings protect rotor mandrel from wear. Rings are hard-faced for extended service.

Maximum depth is 508 mm (20").



Combination Rotor

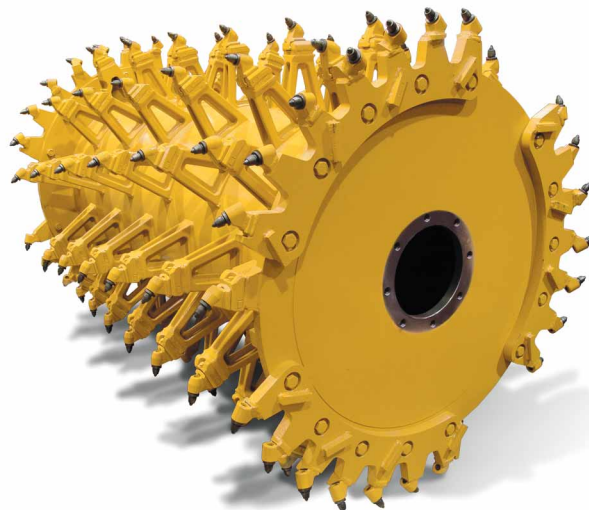
Designed primarily for use in soil stabilization with a secondary application in light cuts of asphalt reclamation.

114 point-attack carbide-tipped tools are mounted in drive-in, knock-out bolt-on breakaway tool holders and arranged in a chevron pattern for maximum breakout force.

Versatile applications – intended for applications where material gradation is of less importance and where higher working speeds are desired.

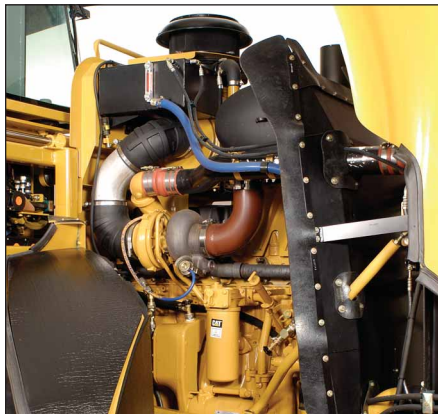
Replaceable end rings protect rotor mandrel from wear. Rings are hard-faced for extended service.

Maximum depth is 508 mm (20").



Serviceability

Less time on maintenance means more time on the job.



The one-piece fiberglass hood tilts forward for exceptional access to the engine and cooling package. Daily service points are accessible from ground level and are grouped on one side of the engine. Lower side panels open wide for even greater access.

Cooling package is single plane design for easy access during cleaning and service. A modular, stacked cooling system provides more efficient cooling of individual systems and makes replacement and routine cleaning easier. Electronically controlled on-demand variable speed cooling fan provides the lowest overall noise levels and high ambient operation capability.

Hydraulic rotor hood tilt rotates hood forward for convenient access to rotor for inspection and tool maintenance.

Hinged service doors open wide on sides of engine, rotor hood and on top deck for access to power train and rotor drive components.

Self-lubricating rotor drive chains in sealed chain cases partially filled with oil.

Electronic Control Module (ECM) monitors machine systems and provides self-diagnostics for operator or service personnel.

Three warning levels alert operator to conditions on the machine that require attention. Encourages repair before major failure.

Level One – a flashing gauge indicator and a flashing alert indicator light.
Level Two – level one warning plus the warning action lamp flashing.
Level Three – level two warning plus the warning action horn sounds.

Visual indicators allow easy check of engine coolant, hydraulic oil level, rotor bearing reservoir and air restriction indicator.

Quick-connect hydraulic test ports simplify system diagnostics.

Ecology drains provide an environmental method to drain fluids. They are included on the radiator, engine oil pan, hydraulic and fuel tank.

S•O•SSM ports allow for simple fluid collection of engine oil, engine coolant and hydraulic oil.

Secure hose routing with polyethylene routing blocks to reduce rubbing and increase service life.

Nylon braided wrap and all-weather connectors ensure electrical system integrity. Electrical wiring is color-coded, numbered and labeled with component identifiers to simplify troubleshooting.

Maintenance-free Caterpillar batteries are mounted on the side of the machine and are accessible from ground level. Cat batteries are specifically designed for maximum cranking power and protection against vibration.

Machine is Product Link wire-ready. The Caterpillar Product Link System (CPLS) ensures maximum uptime and minimum repair costs by simplifying tracking of equipment fleets. Provides automatic machine location and hour updates. Can be obtained through your local Caterpillar dealer.

Engine

The Caterpillar® C15 engine with ACERT™ Technology is a six cylinder, turbocharged air-to-air after-cooled diesel engine. The engine meets U.S. EPA Tier 3 and European EU Stage IIIa engine emission regulations.

Engine	Cat® C15	
Gross Power	kW	hp
SAE J1995	403	540
Net Power	kW	hp
ISO 9249	403	540
EEC 80/1269	403	540
SAE J1349	399	535
Specifications		
Bore	137 mm	5.4"
Stroke	171 mm	6.7"
Displacement	15.1 liters	923 in ³

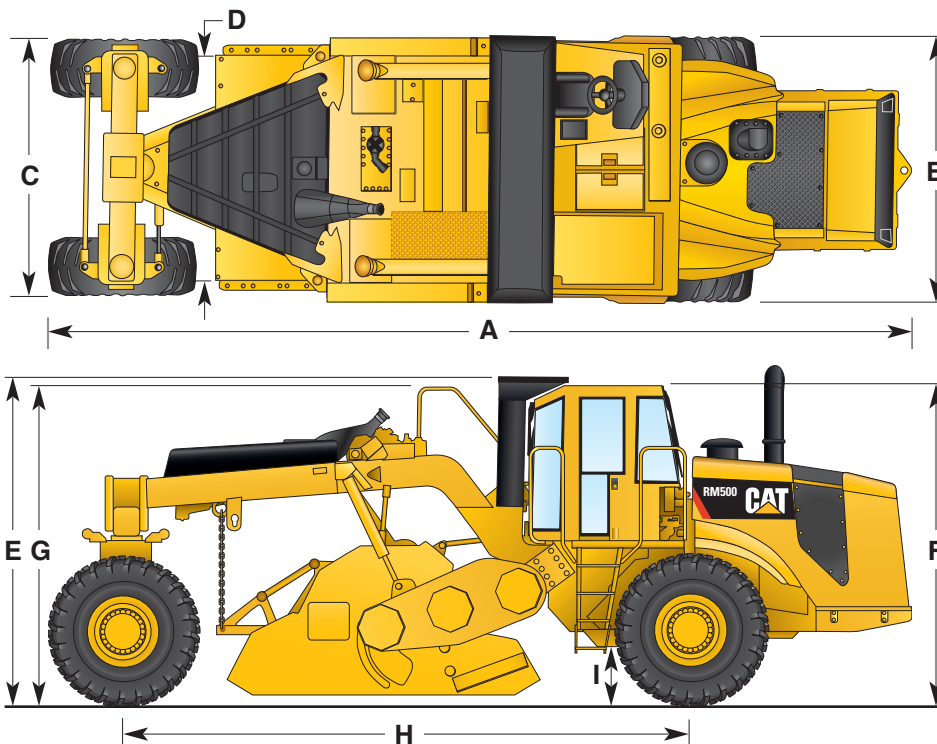
- The power ratings apply at a rated speed of 2000 RPM when tested under the reference conditions for the specific standard.
- The net power advertised is the power available at the flywheel when the engine is equipped with an alternator, air cleaner, muffler and fan at minimum speed.
- The net power at the flywheel when the fan is at maximum speed is 379 kW (508 hp) per the SAE J1349 reference standards.
- The engine provides a torque of 2356 Nm (1738 lb/ft).
- Derating is not required up to an altitude of 1067 m (3500').

Service Refill Capacities

	Liters	Gallons
Fuel tank (useable)	1056	279
Cooling system	81	21.4
Engine oil w/filter	34	8.9
Propel planetary gear reducer (each)		
Front	5	1.3
Rear	4	1
Hydraulic tank	233	61.5
Rotor drive axle	17	4.5
Rotor bearing reservoir	12	3.2
Chain case (each)	25.6	6.8
Rotor drive planetary gear reducer (each)	3.8	1
Rotor transmission	12.4	3.25

Operating Dimensions

A Overall length	9.68 m	31' 8"
B Overall machine width	2.98 m	9' 7"
C Width at rear wheels	2.82 m	9' 2"
D Rotor hood width	2.53 m	8' 3"
E Height at ROPS	3.48 m	11' 4"
F Height at cab (if equipped)	3.39 m	11' 1"
G Height at handrail	3.36 m	11'
H Wheelbase	6.25 m	20' 5"
I Ground clearance	530 mm	20.8"
Inside turning radius	3.7 m	12' 1"



Operating Weights

Weights shown are approximate and include coolant, lubricants, 50% fuel level and a 75 kg (165 lb) operator.

Machine Weights with open platform

with universal rotor	27 165 kg	59,900 lb
with soil rotor	26 940 kg	59,400 lb
with combination rotor	26 170 kg	57,700 lb

Optional Configurations (add to above figures)

ROPS	512 kg	1130 lb
FOPS	213 kg	470 lb
Cab	468 kg	1030 lb

Rotor Options

Three rotor styles are available. All mount to the standard mixing chamber. Breaker bars are included with the universal rotor.

Rotor	Width	Diameter	Tools	Max. Depth
Universal	2438 mm (96")	1375 mm (54")	200	406 mm (16")
Soil	2438 mm (96")	1625 mm (64")	238	508 mm (20")
Combination	2438 mm (96")	1625 mm (64")	114	508 mm (20")

Propel System

All-wheel drive is standard to provide full-time four-wheel drive for increased tractive effort.

Features

- Front wheels are hydrostatically driven by two dual displacement piston-type motors. A separate variable displacement, piston-type pump with electronic displacement control supplies pressurized flow. Planetary gear reduction on each front wheel end.
- Rear wheels are hydrostatically driven by two dual displacement piston-type motors. A separate variable displacement, piston-type pump with electronic displacement control supplies pressurized flow. Planetary gear reduction on each rear wheel end.
- Drive motors have two swashplate positions allowing operation at either maximum torque for work or greater speed for moving around the job site.
- Gear selection controlled electrically by a two-position switch on the operator's console.
- Infinitely variable machine speed and direction of travel controlled by propel lever.
- Speed control dial allows the operator to set the maximum working speed so that when the propel lever is placed in the full forward position, the machine will return to the pre-set speed.
- Load sensing system, controlled by Electronic Control Module (ECM), matches propel speed to load on the engine.
- Each propel system includes a separate flow divider control valve to provide equal traction to each drive motor. Operator can activate by a switch on the front control console.

Max. speeds (forward and reverse):

Working	3.2 km/h - 2.0 mph
Roading	9.2 km/h - 5.7 mph

Rotor Drive System

Operates direct through a Caterpillar three-speed, powershift transmission.

Features

- Choice of three rotor speeds permits working in a wide range of materials, depths and applications.
- Three-position switch determines rotor speed. Speed selection can be changed during operation.
- ON/OFF switch controls clutch pack engagement in transmission. Disc-type brake on rotor driveline activates when switch is in the OFF position.
- Single strand, high strength rotor drive chains on both sides are contained in heavy-duty chain cases partially filled with oil.
- Shear disc or optional torque limiter protect rotor drive components.

Rotor Speeds (@ 2000 engine rpm):

First	110 rpm
Second	152 rpm
Third	205 rpm

Rotor Depth Control

Rotor height and depth is electronic over hydraulic control. ECM controls two double-acting hydraulic cylinders on sides of mixing chamber. Actual rotor height and depth are displayed on the electronic control panel.

Features

- Three-position mode switch allows rotor depth to be controlled manually or automatically.
- MANUAL mode controls depth using the raise/lower switch. Visual depth gauges are easily seen from operator's station.
- AUTOMATIC mode automatically controls rotor depth to a preset cutting depth. Setting cutting depth is easily accomplished first in manual mode by a switch on the operator's console.
- TRAVEL mode selection automatically raises rotor and hood to a preset travel height.

Steering

A hydraulic power-assist, steering system provides four steering modes: front steer only, crab steer, coordinated and rear steer only.

Features

- Two double-acting steering cylinders control the front wheels and are powered by a pressure-compensated, piston-type pump. Two double-acting steering cylinder are attached to the rear bolster. Constant pressure is assured in the steering system.
- Switch on operator's side console provides rear wheel steering mode.

Steering Modes

- Front steer only—controlled by a hand metering unit, maintained by closed-loop control. The ECM automatically aligns rear wheels to the center position for straight tracking.
- Rear steer—controlled by a toggle switch, maintained by closed-loop control.
- Crab—front and rear wheels turn simultaneously in the same direction.
- Coordinated—front and rear wheels turn simultaneously in the opposite direction.
- Switch on operator's side console provides four steering modes.

Turning Radius (minimum):

Inside	3.7 m (12' 1")
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Brakes

Primary Brake Features

- Closed-loop hydrostatic drive provides dynamic braking during normal operation.

Parking Brake Features

- Spring-applied/hydraulically released multiple disc type brake mounted on each gear reducer. Secondary brakes are activated by a button on the operator's console, loss of hydraulic pressure in the brake circuit or when the engine is shut down.
- Propel pumps are destocked when parking brake is engaged. Propel lever must be returned to neutral after brake is released before machine will propel.

Electrical

The 24-volt electrical system consists of two maintenance-free Cat batteries. Electrical wiring is color-coded, numbered, wrapped in vinyl-coated nylon braid and labeled with component identifiers. The starting system provides 1365 cold cranking amps (cca). The system includes a 95-amp alternator.

Frame

Fabricated from heavy gauge steel plates and structural steel tubing. Frame joined to rear bolster with welded-in trunion and spherical plain bearings to allow rear bolster oscillation of 15°.

Tires

Front

26.5" x 25" 20-ply lug-type R-1
345 kPa (50 psi)

Rear

23.1" x 26" 16-ply lug-type R-1
241 kPa (35 psi)

Optional Equipment

Note: Some options listed may be an option in some areas and standard in others. Consult your dealer for specifics.

Roll Over Protective Structure (ROPS) is a two-post structure that bolts directly onto flanges welded to the mainframe. The structure meets ISO 3471. The structure can be field installed.

Falling Object Protective Structure (FOPS) that bolts directly to the ROPS which provides Level 1 protection and also serves as a sun canopy. The structure meets ISO 3449. The structure can be field installed.

Sliding Cab includes a rotating cloth seat, sound absorbing headliner, left and right side lockable doors, tinted glass, air conditioning, heater/defroster, dual front and rear windshield wipers and rubber floor mat. The cab is also radio-ready and includes a power converter, antenna with cable, two speakers and a headliner location for mounting.

Roading Light Package includes two front-facing headlights, two amber running lamps, four amber turn signal/hazard lamps and a slow moving vehicle sign. Light package used for highway transport purposes only.

Warning Beacon Light includes an amber rotating beacon mounted on a retractable pole and mount.

Friction Torque Limiter protects rotor drive train from high torque loads in the event the rotor strikes an immovable object. The limiter slips momentarily without interrupting machine operation.

Mirror Package includes two adjustable mirrors mounted on both sides of the machine for good visibility to the rear and along the sides of the machine.

Umbrella provides sun and rain protection for the operator and includes a support shaft and mounting hardware. Only for use on open platform machines without ROPS or cab.

Water Spray System accurately adds water to processed material. System includes a operator interface panel, hydraulic filter, EDC controlled hydraulic pump, a 379 - 1895 liters (100 - 500 U.S. gallons) per minute vane-type centrifugal pump, in-line flow meter, spray bar with nozzles and hydraulically operated single valve spray bar shut-off.

Universal Rotor is designed for use in asphalt reclamation and features breakaway bolt-on tool holders. Maximum cutting depth is 406 mm (16").

Soil Rotor is designed for use in soil stabilization and features weld-on tool holders. Maximum cutting depth is 508 mm (20").

Combination Rotor is designed primarily for use in soil stabilization with secondary application in light cuts of asphalt reclamation and features breakaway bolt-on tool holders. Maximum cutting depth is 508 mm (20").

Counterweight Kit is a bolt-on weight kit that attaches to the rear of the machine. The kit is recommended when operating in tough reclamation jobs exceeding 25 cm (10") of asphalt.

RM500 Specifications

Operating Weight (with ROPS, cab and universal rotor)

Machine	28 145 kg	62,060 lb
at front	18 295 kg	40,340 lb
at rear	9850 kg	21,720 lb
Ratio (front/rear)	65/35	

Machine Dimensions

Overall length	9.68 m	(31' 8")
Overall width	2.98 m	(9' 7")
Overall height at ROPS	3.48 m	(11' 4")
Wheelbase	6.25 m	(20' 5")
Ground clearance	530 mm	(20.8")
Inside turning radius	3.7 m	(12' 1")

Power Train

Engine	C15 with ACERT™ Technology	
Gross power (SAE J1995)	403 kW	540 hp
Speeds		
Working	3.2 km/h	2.0 mph
Roading	9.2 km/h	5.7 mph
Drive train (propel)	Hydrostatic w/planetary	
Tire size (front)	26.5" x 25"	
Tire size (rear)	23.1" x 26"	

Rotor Drive System

Rotor drive	Chain	
Transmission	Mechanical	
Clutch	Hydraulic	
Speeds		
First	110 rpm	
Second	152 rpm	
Third	205 rpm	

Rotor

Cutting width	2438 mm	(96")
Cutting depth		
Universal	406 mm	(16")
Soil	508 mm	(20")
Combination	508 mm	(20")
Drum diameter		
Universal	1375 mm	(54")
Soil	1625 mm	(64")
Combination	1625 mm	(64")
Number of tools		
Universal	200	
Soil	238	
Combination	114	
Tool spacing (tip)		
Universal	15.9 mm	(0.63")
Soil	11.5 mm	(0.45")
Combination	32 mm	(1.25")

Miscellaneous

Oscillation angle (rear bolster)	± 15°	
Fuel capacity	1056 liters	279 gal

Optional Equipment

- Sliding Cab
- Roll Over Protective Structure
- Falling Object Protective Structure
- Warning Beacon Light
- Friction Torque Limiter
- Universal Rotor
- Water Spray System
- Umbrella
- Combination Rotor
- Roading Light Package
- Mirror Package
- Soil Rotor
- Counterweight Kit

Caterpillar offers a comprehensive line of rotary mixers.

Caterpillar rotary mixers are designed to have the best productivity, reliability, versatility, visibility and operator comfort in their class.

Contact your local Caterpillar dealer to learn more about the complete line of Caterpillar Paving Products.



RM300		
Operating Weight (with ROPS, cab and universal rotor)		
Machine	24 454 kg	53,911 lb
Gross Power (SAE J1995)	261 kW	350 hp
Rotor Width	2438 mm	96"
Cutting Depth		
Universal Rotor	457 mm	18"
Soil Rotor	508 mm	20"
Combination Rotor	508 mm	20"
Propel Speeds		
Working	4.3 km/h	2.7 mph
Roading	9.7 km/h	6.0 mph

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Featured machines in photography may include optional equipment.
Materials and specifications are subject to change without notice.

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