RM300
Rotary Mixer

Cat® C11 Engine with ACERT® Technology		
Gross Power (SAE J1995)	261 kW	350 hp
Rotor Width	2438 mm	96"
Rotor Depth (maximum)	508 mm	20"

Operating Weight (with ROPS and cab)		
with universal rotor	24 454 kg	53,911 lb
with soil rotor	23 919 kg	52,736 lb

Productivity, Serviceability and Comfort in a Durable Package

The new RM300 offers enhanced production capabilities, optimized performance, simplified service and exceptional operator comfort.

C11 Engine with ACERT® Technology

ACERT® Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions. The C11 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.

Page 4

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 optional 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 leading to increased productivity.

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.

Page 5

Performance and reliability you expect.

The RM300 combines superior performance and reliability to achieve the most demanding job specifications while maximizing machine uptime. With many enhanced features and options, the RM300 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.
Page 6

Rotor Drive
A direct-drive mechanical 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.
Page 8

Rear Wheel Drive
The optional rear wheel drive propel system features a dedicated propel pump to provide separate balanced hydraulic flow to both the rear drive motors. 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.
Page 8

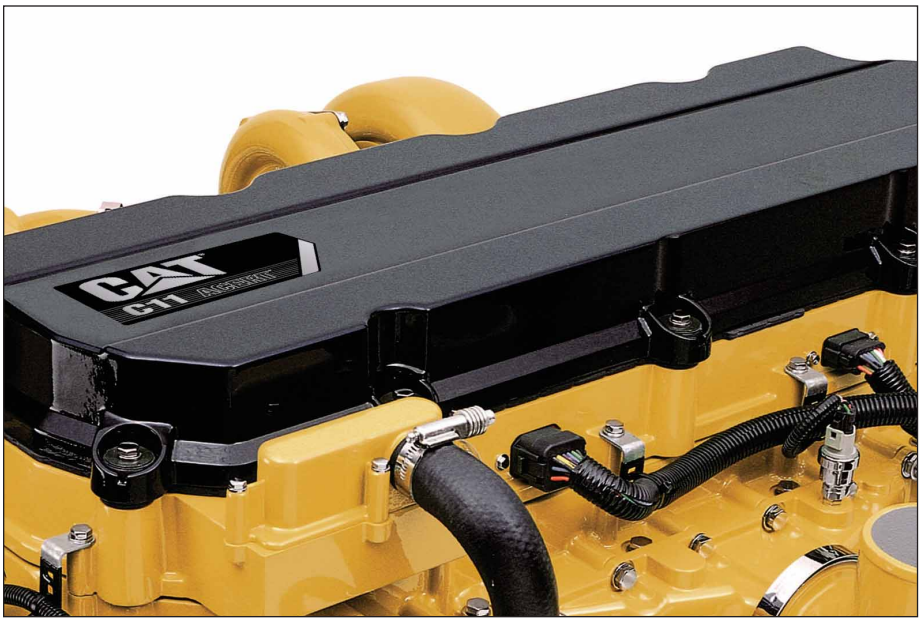
Mixing Chamber
Mixing chamber allows the rotor to move independently so that the capacity of the chamber actually increases in deeper cuts to allow better material mixing and excellent gradation. Machine weight is well distributed to provide stability in the cut for uniform depth control.
Page 9

Rotor Options
With a choice of two rotor options, the RM300 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.
Page 10

Serviceability
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. Hinged side access doors open wide 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 service doors open wide for access to power train and rotor drive components.
Page 11

C11 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® C11 Engine with ACERT® Technology

The C11 engine provides a full-rated gross power (SAE J1995) of 261 kW (350 hp) at 1800 rpm with a torque of 1384 Nm (1024 lb/ft). The combination of large displacement and high torque allow the RM300 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 C11 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, optimizes fuel combustion; translating into more work output for your fuel cost.

C11 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

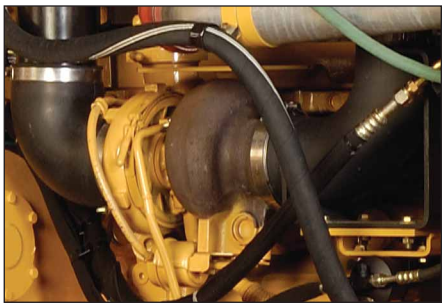
High cylinder pressures combined with tightly controlled tolerances promote extremely efficient fuel burn, less blow by and lower emissions.

Single Overhead Cam

One single overhead cam is driven by a gear on the flywheel end of the engine. Placing the cam gear at the flywheel end significantly reduces noise and vibration. To reduce wear, a pendulum absorber is mounted at the front of the camshaft. Together these two features contribute to the long-life and durability of this engine.

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.

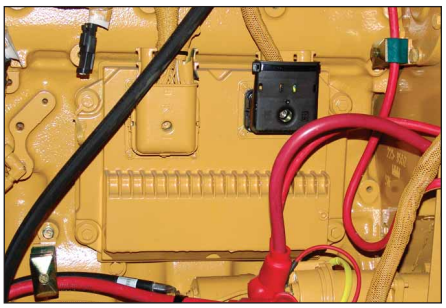


Turbocharged and Air-to-Air Aftercooling (ATAAC)

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, rear 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 optional sliding platform slides side-to-side to reduce operator fatigue for increased productivity.

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.

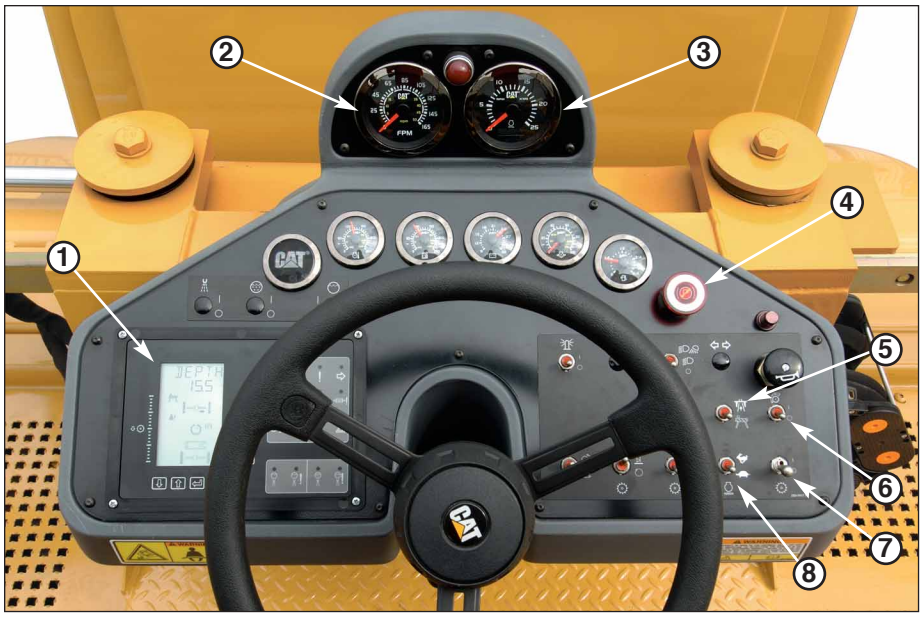
Comfortable and durable seat has adjustable fore/aft position, bottom cushion height, suspension stiffness and flip-up arm rests. Seat and side control console rotates to seven positions to enhance operator comfort.

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
2 Ground Speed Indicator
3 Engine Tachometer
4 Park Brake Switch
5 Propel Speed Selector Switch
6 Load Control Selection Switch
7 Rotor On/Off Switch
8 Engine Speed Switch

Clear instrumentation includes gauges for engine oil pressure, engine coolant 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.

Standard rear wheel steering control allows operator to position rear wheels for maneuvering in tight quarters. Automatic four mode steering including a crab and coordinated position is optional.

Sliding Cab

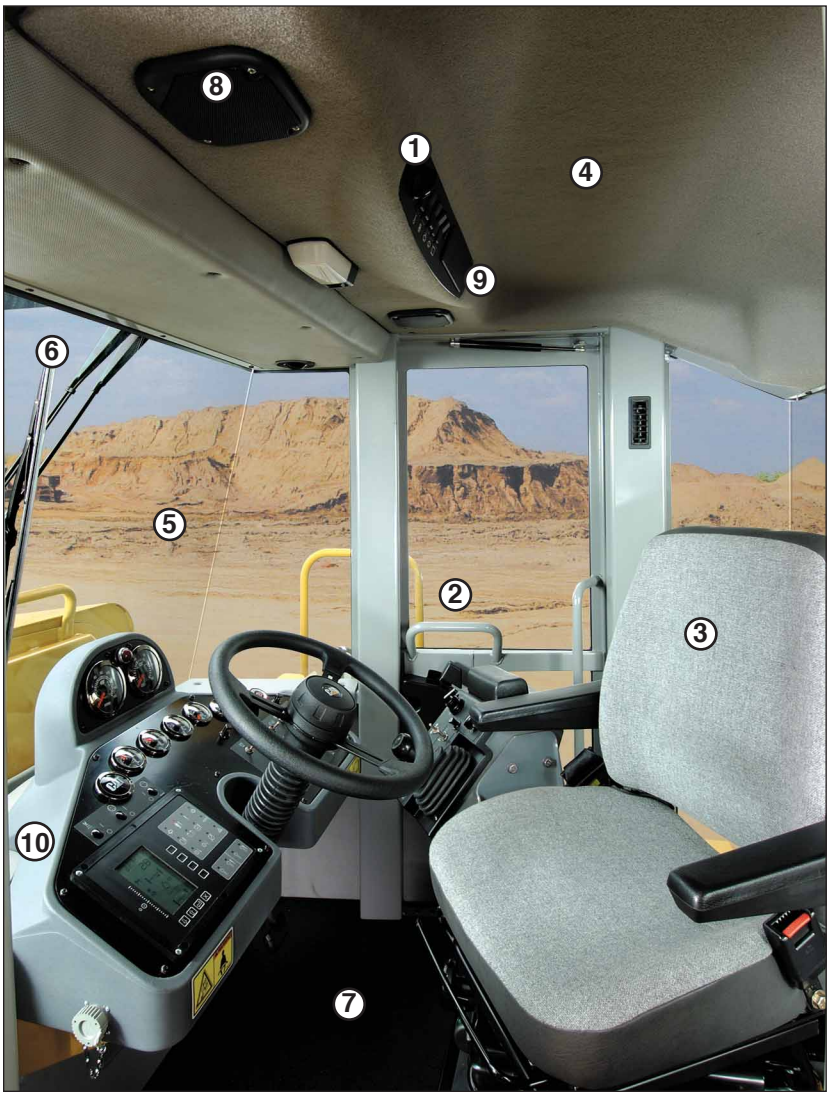
Optional cab can increase machine utilization and provides greater year-round comfort in extreme environment conditions. The cab is fully pressurized and includes air conditioning.

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.

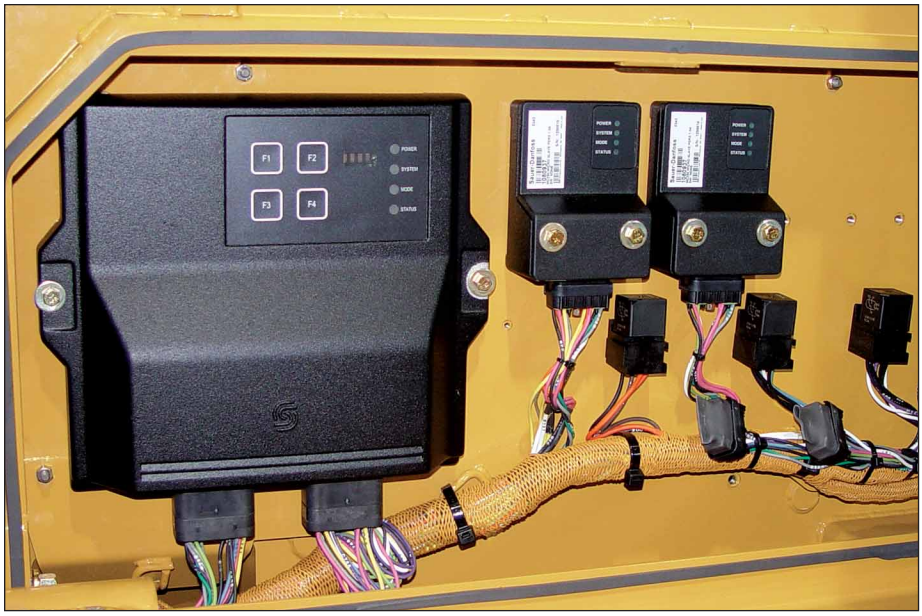
8) Dual front mounted speakers.

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.

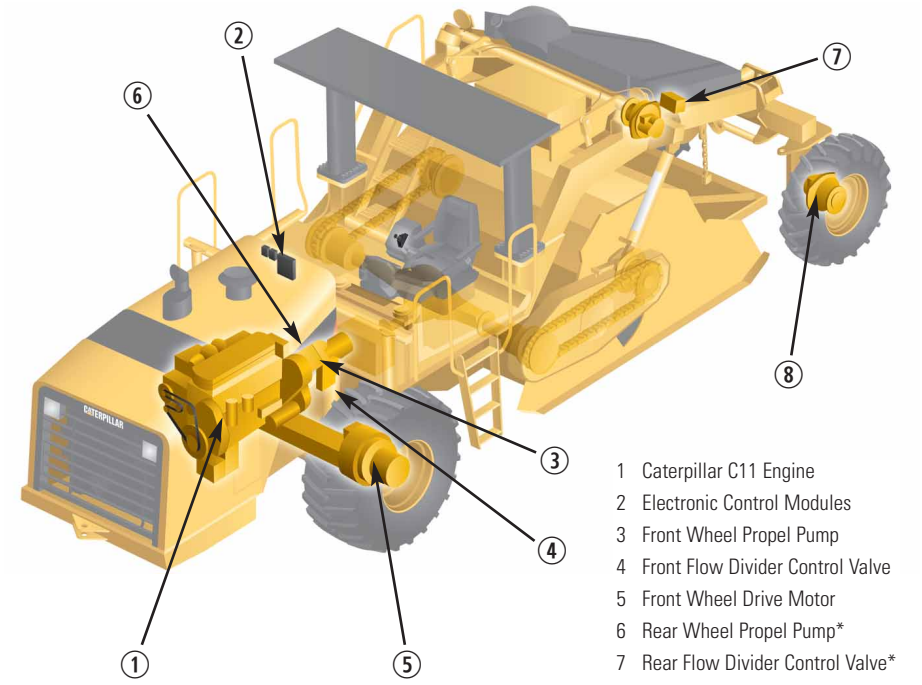
Self-diagnostics provides information for troubleshooting and alerts the operator of potential system problems.

Automatic load control adjusts propel speed so that engine speed does not drop below 1800 rpm. Machine always works at peak efficiency for maximum output.

Optional automatic rotor depth control provides consistent quality and performance.

Propel System

Hydrostatic drive provides balanced tractive effort to each drive motor.



1 Caterpillar C11 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*

*Optional

Propel pump provides balanced flow to the dual displacement front drive motors. Provides superior tractive effort in soft underfoot conditions.

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

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.

Flow divider control valve provides equal hydraulic oil flow to each drive motor to increase tractive effort in slippery conditions.

Rear Wheel Drive

Optional rear wheel drive includes a separate hydraulic pump and large displacement motors on each rear wheel. The system propels the machine with all-wheel drive.

Two 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.

Flow divider control valve directs equal hydraulic flow to each rear wheel to provide all-wheel drive.

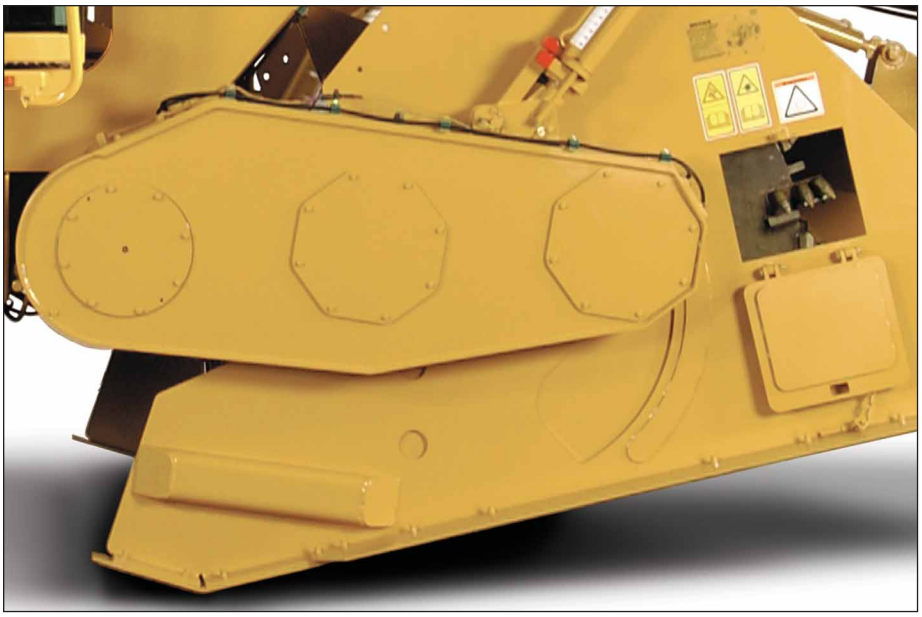
High torque large displacement motors on rear wheels makes this a true four-wheel drive machine.

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

Rear wheel drive feature can be turned on by a switch on the operator's console when maximum tractive effort is required.

Rotor Drive

Maximum production with high reliability. The mechanical rotor drive system provides three rotor speeds for maximum performance in a variety of materials and cutting depths.



Hydraulically engaged clutch, high torque mechanical transmission and drive axle allows efficient and reliable transfer of engine power to rotor and is sized to handle tough cutting and deep mixing.

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

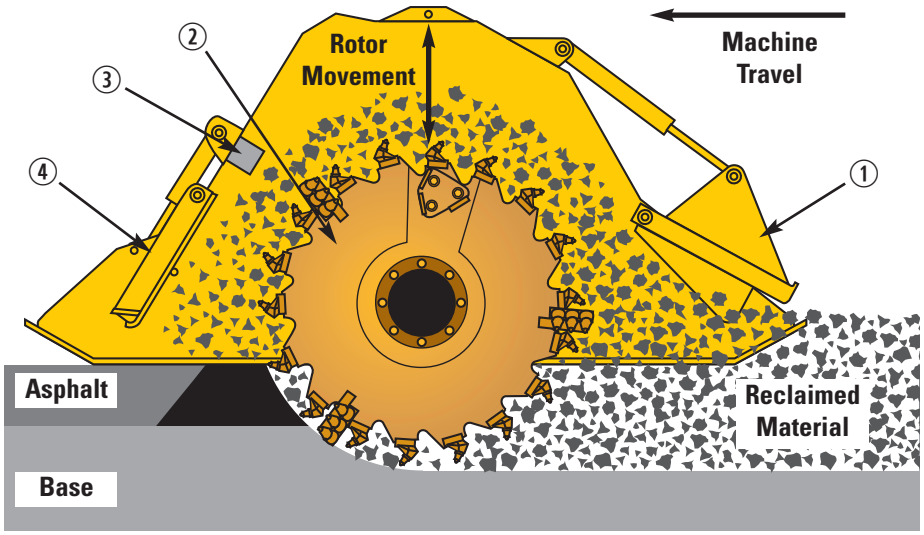
Three rotor speeds for maximum performance in a variety of materials and cutting depths. First speed is used primarily for pulverizing the material. Second and third rotor speeds can be used as blending or mixing passes.

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 shock 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*

*Optional

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.

Optional 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

Optional 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 two 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.

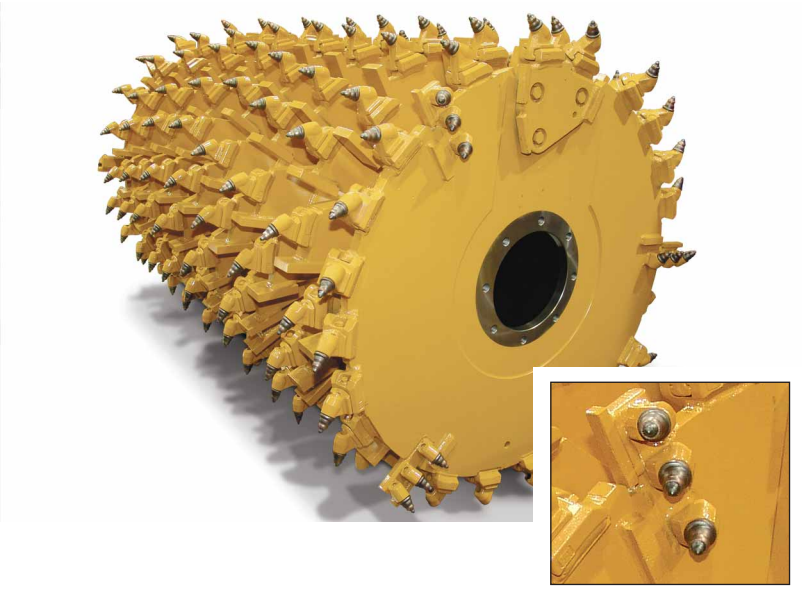
200 point-attack carbide-tipped tools are mounted in drive-in, knock-out bolt-on tool holders and arranged in a chevron pattern for maximum breakout force.

Breakaway design tool holders allow for fast replacement without welding.

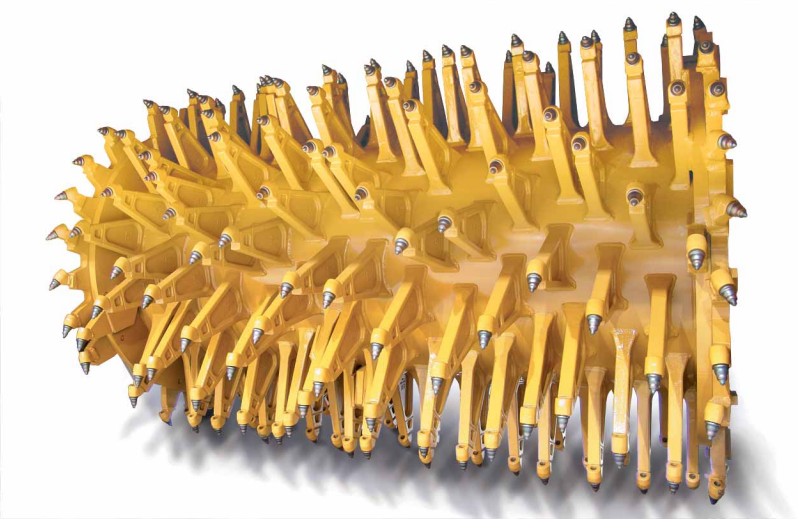
Kicker paddles placed on every stand-off improves mixing in soil stabilization and provides more efficient material movement in full depth reclamation.

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

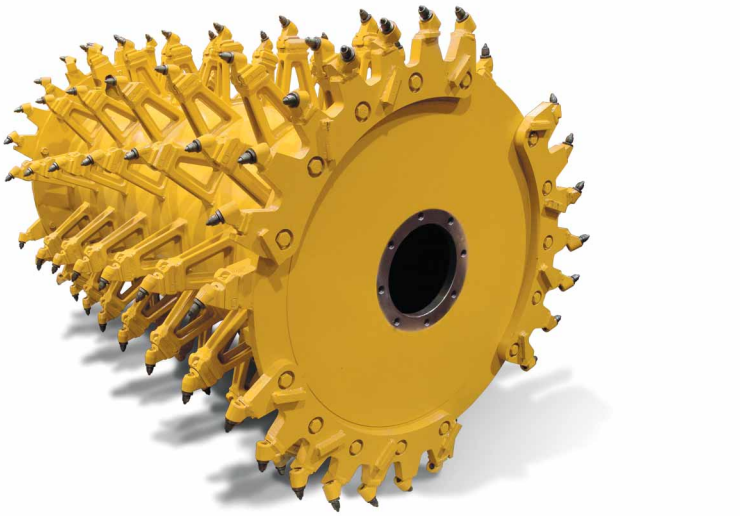
Designed primarily for use in soil stabilization with a secondary application in light cuts of asphalt reclamation.

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.

Daily service points are accessible from ground level and are grouped on one side of the engine. Hinged ground level side panels open wide for total access to engine components. Lower side panels can easily be removed for even greater access.

Cooling package is a multi-row modular design, stacked in series for easy access for 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, rotor axle and hydraulic oil level 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•S℠ 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

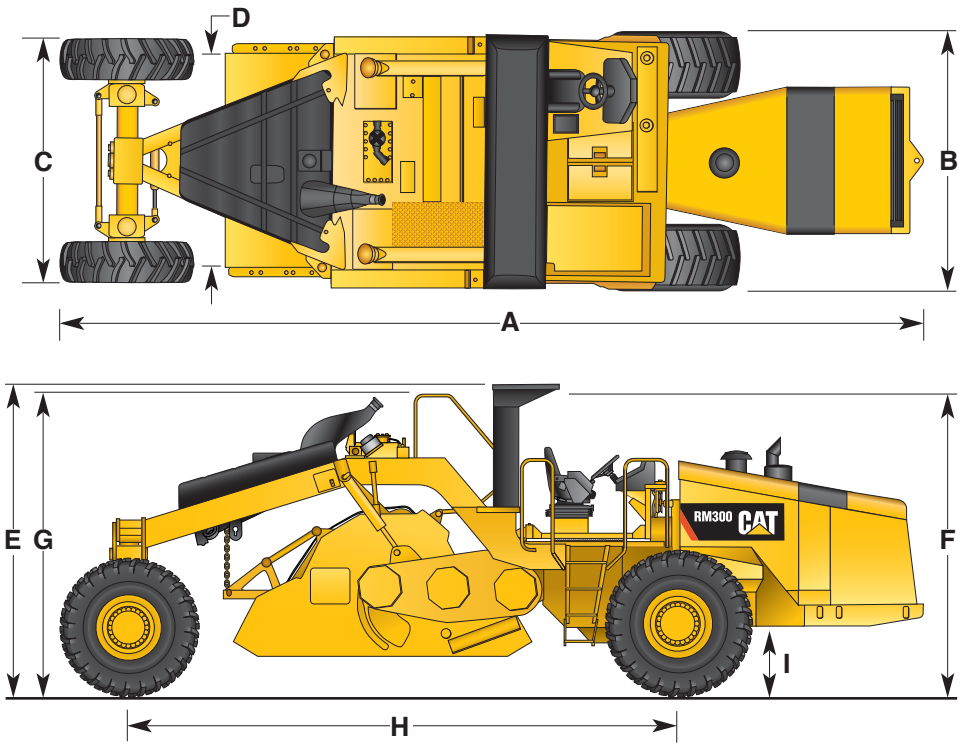
The Caterpillar® C11 engine with ACERT® Technology is a six cylinder, turbocharged air-to-air after-cooled diesel engine. The engine meets U.S. EPA Tier 3 and European EU Stage IIIa engine emission regulations.

Engine	Cat® C11	
Gross Power	**kW**	**hp**
SAE J1995	261	350
Net Power	**kW**	**hp**
ISO 9249	260	349
EEC 80/1269	260	349
SAE J1349	258	345
Specifications		
Bore	130 mm	5.1"
Stroke	140 mm	5.5"
Displacement	11.1 liters	680 in^3

- The power ratings apply at a rated speed of 1800 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 238 kW (318 hp) per the SAE J1349 reference standards.
- The engine provides a torque of 1384 Nm (1024 lb/ft).
- Derating is not required up to an altitude of 2134 m (7000').

Operating Dimensions

A	Overall length	10 m	32' 10"
B	Overall machine width	3 m	9' 10"
C	Width at rear wheels	2.82 m	9' 3"
D	Rotor hood width	2.73 m	8' 11"
E	Height at ROPS	3.5 m	11' 6"
F	Height at cab (if equipped)	3.4 m	11' 2"
G	Height at handrail	3.37 m	11' 1"
H	Wheelbase	6.32 m	20' 9"
I	Ground clearance	720 mm	28.3"
	Inside turning radius	3.9 m	12' 10"



Service Refill Capacities

	Liters	Gallons
Fuel tank (useable)	1056	279
Cooling system	62.5	16.5
Engine oil w/filter	32	8.5
Propel planetary gear reducer (each)	5	1.3
Hydraulic tank	233	61.5
Rotor drive axle	17	4.5
Rotor axle hub (each)	3.8	1
Rotor bearing reservoir	2	0.5
Chain case (each)	25.6	6.8
Rotor transmission	5.7	1.5

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	23 473 kg	51,750 lb
with soil rotor	22 940 kg	50,576 lb

Optional Configurations (add to above figures)		
ROPS	512 kg	1129 lb
FOPS	213 kg	470 lb
Cab	468 kg	1032 lb

Rotor Options

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

Rotor	Width	Diameter	Tools	Max. Depth
Universal	2438 mm (96")	1525 mm (60")	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

Front wheel drive is standard. Rear wheel drive is optional to provide on-demand all-wheel drive for increased tractive effort. Operator can activate by a switch on the front control console.

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.
- Front 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.
- Rear wheels are hydrostatically driven by two radial piston-type motors. A separate variable displacement, piston-type pump with electronic displacement control supplies pressurized flow.
- 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 rotor.
- Flow divider control valve provides equal hydraulic oil flow to each drive motor to increase tractive effort in slippery conditions. Operator can activate by a switch on the front control console. The rear propel system also includes a flow divider control valve if machine is equipped with the rear wheel drive option.

Max. speeds (forward and reverse):

Working	4.3 km/h - 2.7 mph
Roading	9.7 km/h - 6.0 mph

Rotor Drive System

Operates direct through a hydraulically actuated clutch driving a mechanical transmission.

Features

- ON/OFF switch controls hydraulically actuated clutch driving transmission and rotor drive axle.
- Three rotor speeds are created through transmission and rotor drive axle. Choice of rotor speeds permits working in a wide range of materials, depths and applications.
- Rotor speed selection controlled electrically by a three-position switch on the operator's console.
- 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 (@ 1800 engine rpm):

First	106 rpm
Second	144 rpm
Third	216 rpm

Rotor Depth Control

Manual rotor height and depth controlled by operator is standard. Automatic rotor height and depth is optional and features 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 gauge 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, two mode steering system—front and rear wheel is standard. Four mode features crab and coordinated steering through ECM is optional.

Features

- Two double-acting steering cylinders control the front wheels and are powered by a pressure-compensated, piston-type pump. One double-acting steering cylinder is 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. When equipped with four mode steering, 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	3.9 m (12' 10")

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 destroked 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 15º.

Tires

Front

28.1" x 26" 18-ply lug-type R-1
262 kPa (38 psi)

Rear

18.4" x 30" 12-ply lug-type R-1
221 kPa (32 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 Operator Station slides fully to both sides of platform using hydraulic-assist. Includes a rotating vinyl seat, handrails, dual access ladders and vandalism guards for both the front and side control console.

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.

Rear Wheel Drive propels the machine with on-demand all-wheel drive in the work mode to increase tractive effort. Highly recommended for soil stabilization applications. Includes separate propel pump, two radial piston hydraulic drive motors, flow divider and free wheeling valve. The rear wheels freewheel when rear wheel drive is not engaged.

Automatic Rotor Depth Control. ECM 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. Actual rotor height and depth are displayed on the electronic control panel. (Includes four mode steering.)

Four Mode Steering. ECM monitors the position of the steering mode switch and controls the rear wheels to provide automatic crab and coordinated steering. (Includes automatic rotor depth control.)

Hydraulically Operated Front Door allows the operator to control the opening of the front door from the operator's station. Offers better control of gradation in reclamation and increased versatility in soil stabilization because the machine is able to work in both directions.

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.

Working Light Package includes six adjustable halogen floodlights, two front-facing, two rear-facing and two facing each rotor chamber door. Two red tail lamps, eight amber and two red reflectors are also included.

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.

Mirror Package includes an adjustable mirror 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.

Powertrain Guard includes three bolt-on steel guards to provide protection for the engine crankcase and hydraulic hoses at front axle area.

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

RM300 Specifications

Operating Weight (with ROPS, cab and universal rotor)

Machine	24 454 kg	53,911 lb
at front	15 895 kg	35,042 lb
at rear	8559 kg	18,869 lb
Ratio (front/rear)	65/35	

Machine Dimensions

Overall length	10 m	(32' 10")
Overall width	3 m	(9' 10")
Overall height at ROPS	3.37 m	(11' 1")
Wheelbase	6.32 m	(20' 9")
Ground clearance	720 mm	(28.3")
Inside turning radius	3.9 m	(12' 10")

Power Train

Engine	C11 with ACERT® Technology	
Gross power (SAE J1995)	261 kW	350 hp
Speeds		
Working	4.3 km/h	2.7 mph
Roading	9.7 km/h	6.0 mph
Drive train (propel)	Hydrostatic w/planetary	
Tire size (front)	28.1" x 26"	
Tire size (rear)	18.4" x 30"	

Rotor Drive System

Rotor drive	Chain	
Transmission	Mechanical	
Clutch	Hydraulic	
Speeds		
First	106 rpm	
Second	144 rpm	
Third	216 rpm	
Chain tensile strength	76 365 kg	168,000 lb

Rotors	**Universal**	**Soil**	**Combination**
Cutting width	2438 mm (96")	2438 mm (96")	2438 mm (96")
Cutting depth	406 mm (16")	508 mm (20")	508 mm (20")
Drum diameter	1525 mm (60")	1625 mm (64")	1625 mm (64")
Number of tools	200	238	114
Tool spacing (tip)	15 mm (0.6")	11.5 mm (0.45")	32 mm (1.25")

Miscellaneous

Electrical system	24 VDC	
Oscillation angle (rear bolster)	± 15°	
Fuel capacity	1056 liters	279 gal

Optional Equipment

- Sliding Cab
- Roll Over Protective Structure
- Falling Object Protective Structure
- Rear Wheel Drive
- Sliding Operator Station
- Water Spray System
- Auto Rotor Depth Control
- Four Mode Steering
- Friction Torque Limiter
- Hydraulic Front Door
- Umbrella
- Powertrain Guard
- Working Light Package
- Roading Light Package
- Warning Beacon Light
- Mirror Package
- Universal Rotor
- Soil Rotor

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.

RM500

Operating Weight (with ROPS, cab and universal rotor)		
Machine	28 145 kg	62,060 lb
Gross Power (SAE J1995)	403 kW	540 hp
Rotor Width	2438 mm	96"
Cutting Depth		
Universal Rotor	406 mm	16"
Soil Rotor	508 mm	20"
Combination Rotor	508 mm	20"
Propel Speeds		
Working	3.2 km/h	2.0 mph
Roading	9.2 km/h	5.7 mph

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