

PM-465

Cold Planer



Machine shown may have optional equipment.

Cat® 3406C JWAC Diesel Engine

Gross power	373 kW	500 hp
Standard Cutting Width	2066 mm	79"
Maximum Cutting Depth	305 mm	12"

PM-465 Cold Planer

The PM-465 Cold Planer combines power, reliability and durability to complete tough milling applications with productive results.

Engine

A Caterpillar 3406C jacket water after cooled (JWAC) diesel engine provides 373 kW (500 hp) for the power needed in tough milling applications. The engine is mounted transversely in the machine frame and is easily accessible with a hydraulic assist lift-up hood and side swing-open access panels. The engine is completely exposed for simplified service.

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Rotor

The 2006 mm (79") rotor width enables the PM-465 to handle city street and urban applications, as well as high production work on highways, interstates or runways. The triple wrap rotor design provides excellent tooth spacing while the one piece flighting delivers durable wear. The optional bolt-on tool holder provides quick tool holder replacement without welding.

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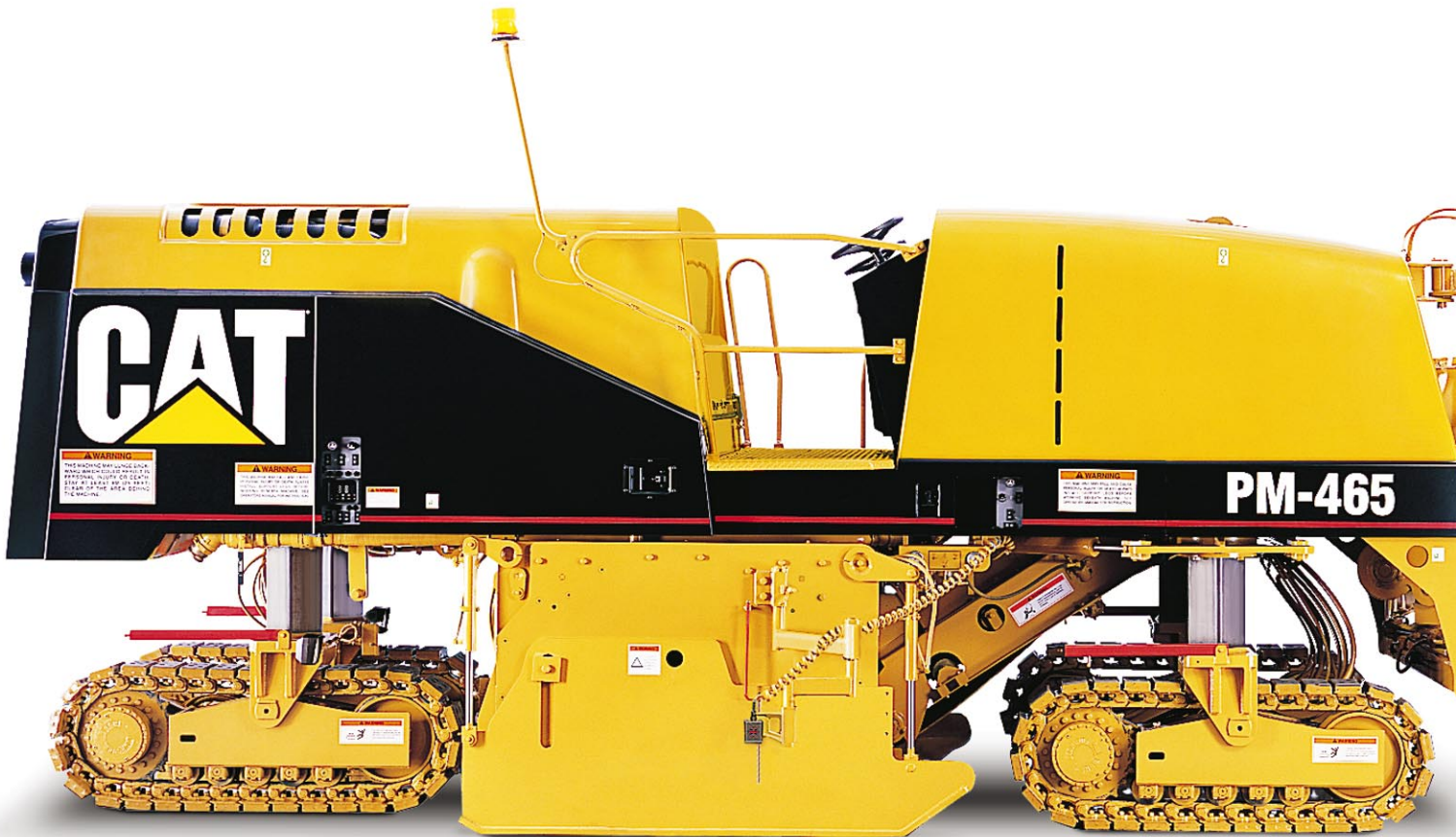
Rotor Drive

A Caterpillar wet clutch with automatic belt tension adjustment delivers efficient and reliable power to the pavement. The rotor drive consists of field-proven Cat D8 Track-type Tractor components for Caterpillar machine commonality and long service life.

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Grade and Slope Controls

The grade and slope system provides simple operation from either the operator's station or the ground controls.



Machine shown may have optional equipment.

Operator's Station

The operator's station is open, uncluttered and easily accessible from the left side. Right and left side controls provide the operator excellent visibility and simple operation.

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Front-Loading Conveyor

The PM-465 features a front-loading conveyor for greater productivity. The conveyor swings 45 degrees to the right or left depending on your job requirements. Conveyor functions can be controlled from the operator's station or the ground level controls. A conveyor boost switch casts the material farther for loading long trucks.

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Maneuverability

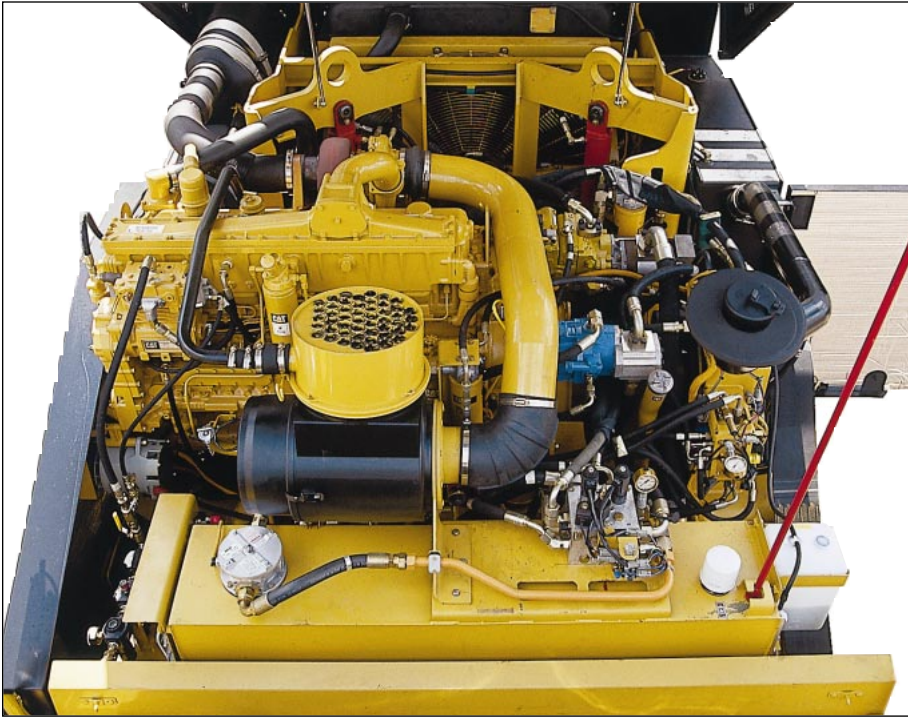
Four steering modes: front, rear, crab and coordinated enable the operator to have complete control of the machine position in tight milling applications. The four-track drive provides stable operation. The inset rear tracks allow for greater maneuverability and a tight turning radius.

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Cat® 3406C JWAC Engine

Dependable, field-proven, efficient Cat power.



Adjustment-free fuel system includes separate fuel injection camshaft, field-replaceable injection nozzles for fuel economy.

Turbocharger reacts to load demands while delivering full rated power up to 1500 m (4921') elevation.

Articulated pistons have a forged steel crown and aluminum skirt for better performance, fuel consumption and improved emissions.

Crankshaft is steel forged and heat treated to eliminate soft metal in fillets or cheeks.

Cylinder block is high strength cast iron alloy with dual tube cooling jets for superior durability and performance.

Stainless steel sleeves used on cylinder head exhaust ports reduce heat rejection.

Rotor Drive

Delivers maximum available horsepower to each tool tip.



Caterpillar wet clutch is the most efficient and reliable system of applying rotor power to the pavement. The clutch system provides long service life and reliability.

Final drive system consists of Cat D8 Track-type Tractor components. The field-proven drive system delivers reliability and long service life.

Molded, high-strength belt provides long service life.

Automatic belt tension adjustment prevents slipping and reduces maintenance.

Separate hydraulic loop with reservoir, pump, filter, valves and oil cooler provide reliable operation.

Rotor Mandrel

Designed for high production and long service life.



Optional Bolt-on tool holder

Triple wrap design provides optimum tooth spacing for high production.

One piece flighting, 51 mm (2") stands up to tough applications.

Flighting designed to help move material onto pickup conveyor.

2066 mm (79") wide rotor is ideal for city streets or highway work.

Pressurized water spray system controls dust and cools cutting teeth. Conserves water by automatically turning the water system off when the machine is not milling.

Flush cut on right side, high curb clearance on left side.

Optional Bolt-on tool holder, enables quick and simple tool replacement without welding.

Maneuverability

Excellent handling for precise control and production.



Four steering modes, front, rear, crab and coordinated allow excellent maneuverability in tight spots.

Tight cutting radius, 3619 mm (11' 10") allows for precise milling on city streets.

Standard polyurethane track pads can provide up to four times the wear of rubber track pads and provide good traction.

Two position throttle switch allows the operator to choose between high and low engine rpm.

Propel levers provide infinitely variable speeds within high and low rpm selection.

Operator's Station

Designed for efficiency, productivity and simple operation.



Dual operational controls include steering wheels, propel levers, conveyor controls, parking brake switches, shut-down switches and rear steering controls.

Clear control and instrumentation layout designed for ease of use.

Warning horn and shut-down buttons located at ground level and at the operator's station.

Smart Monitoring System monitors system pressures and engine condition with seven modes of operation. Fault code display if a problem does occur.

Low sound levels help the operator and ground crew communicate effectively.

Front-Loading Conveyor

High capacity and versatility adds to productivity.



762 mm (30") wide conveyors with hydraulically controlled height adjustment and 45 degree swing to both sides.

Conveyor controls located at the operator's station and at ground level make operation simple and convenient.

Seamless, cleated belts offer longer life and better control of fine particles.

Conveyor boost casts material farther to load long trucks.

Variable belt speed controls upper belt loading to match material type and amount.

Standard water spray lubricates and cools cutting teeth while controlling dust.

Four-Track Drive

Excellent traction and stability.



Variable hydrostatic drive on all four tracks reduces track slippage.

250 mm (10") wide tracks provide long life and positive traction on all pavement surfaces.

Rear tracks inset to allow excellent maneuverability and tight turns. Right side inset 590 mm (23"), left side inset 76 mm (3") from the drum edge.

Standard polyurethane track pads can provide up to four times the wear life of rubber track pads.

Positive traction control provides constant hydraulic flow to all four track drive motors.

Five idlers per track for increased undercarriage life and reduced undercarriage maintenance.

Serviceability

Less time on maintenance means more time on the job.



Engine hood opens wide for access to engine and hydraulic components.

Engine side covers swing wide to allow ground-level access to engine.

Rear cover swings up for access to radiator and oil cooler.

Hydraulic rotor service door facilitates access to the rotor.

Electronic Control Module (ECM) monitors system operation and alerts the operator to any problems.

Easily accessible maintenance points facilitate daily inspection.

Diesel Engine

Caterpillar® 3406C JWAC diesel engine. 1996 emissions certified.

Ratings at	RPM	kW	hp
Gross power	2100	373	500
Net power	2100	353	473

The following ratings apply at 2100 RPM when tested under the specified standard conditions:

Net Power	kW	hp	Ps
Caterpillar	353	473	–
EEC 80/1269	353	473	–
ISO 9249	353	473	–
SAE J1349(JAN90)	349	468	–
DIN 70020	–	–	518

Gross Power	RPM	kW	hp
ISO 3046-2	2100	373	500

Dimensions

Bore	137 mm	5.4"
Stroke	165 mm	6.5"
Displacement	14,6 liters	893 cu in.

Power rating conditions

- Based on standard air conditions of 25°C (77°F) and 99 kPa (29.32" Hg) dry barometer.
- Used 35° API gravity fuel having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/U.S. gal)].
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No derating required up to 1500 m (4921 ft) altitude.

The dry-type air cleaner with primary and secondary elements has an automatic dust ejector and service indicator.

Hydraulic System

- Pumps for track drive, conveyor system, auxiliary hydraulics and fan are installed on engine mounting pad.
- Hydraulic oil cooler adjacent to radiator.
- Three-micron filtration on pressure side of auxiliary flow; seven-micron filtration on return flow.
- Quick connect fittings for checking pressures.

Electrical System

The 24-volt electrical system includes two maintenance-free Cat batteries. The wiring is color-coded, numbered and wrapped in nylon braid. The system uses a 100 amp alternator.

Service Refill Capacities

	Liters	Gallons
Fuel tank	796	210
Cooling system	91	24
Crankcase	34	9
Rotor Clutch Tank	49	13
Hydraulic system	174	46
Water system	2275	600

Brakes

Normal usage brake

- Closed-loop hydrostatic drive provides dynamic braking.

Parking brake features

- Button-actuated, spring-applied, hydraulically released disc brakes on all four tracks.
- Propel pump is destroyed when parking brake is engaged. Propel lever must be returned to neutral after brake is released before machine will propel.

Propel System

- Four 1911 mm (75") long x 250 mm (10") wide tracks.
- Standard polyurethane track pads.
- Hydrostatic drive with hydraulic flow provided by variable displacement piston-type pump.
- Infinitely variable machine speed determined by propel lever.
- Load sensing system matches propel speed to load on rotor.
- Positive traction control provides constant hydraulic flow to all four track drive motors.

Speeds:

Operating	0-37 mpm	0-120 fpm
Travel	0-5,2 km/hr	0-3.2 mph

Rotor Drive System

- One nine-rib, high-strength V-belt drives the rotor through a Cat planetary reduction gearbox inside the mandrel.
- Heavy-duty Cat wet clutch mounts directly to the engine.
- Hydraulic automatic belt tensioner.
- Caliper disc brake installed on PTO drive shaft.

Water Spray System

- Centrifugal pump supplies water to spray nozzles for dust control and rotor tooth cooling.
- Three operating modes: on, off, automatic.
- In automatic mode the water spray system only operates when the rotor is engaged and the machine is moving forward.

Tank capacity	2275 L	600 gal.
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Frame

- Fabricated unitized construction.
- Non-skid treads on top deck.
- Molded fiberglass front covers and rear hood.

Steering

- Hydraulic steering with two steering wheels on operator's console.
- Double acting hydraulic cylinders on front and rear tracks.
- Four steering modes with automatic realignment: front, rear, crab and coordinated.

Minimum turning radius

right	3,62 m	11' 10"
left	4,12 m	13' 6"

Rotor Assembly

- Triple-wrap flighting with weld-on tool holders.
- Floating moldboard with adjustable down pressure standard.
- Height control for rotor and moldboard located at operator's station and at ground level.

Cutting Width	2006 mm	79"
Cutting Depth	305 mm	12"
Diameter		
(to tool tips)	1178 mm	46"
Number of tools		144

Conveyor System

Collecting Conveyor:

Length	2350 mm	7' 9"
Width	762 mm	30"
Speed	155 mpm	507 fpm

Discharge Conveyor:

Length	7121 mm	23' 4"
Width	762 mm	30"
Speed	232 mpm	760 fpm
Swing		45°

Grade and Slope Control System

- Contacting and non-contacting sensors available.
- Cross slope system available.
- Simplified operation.

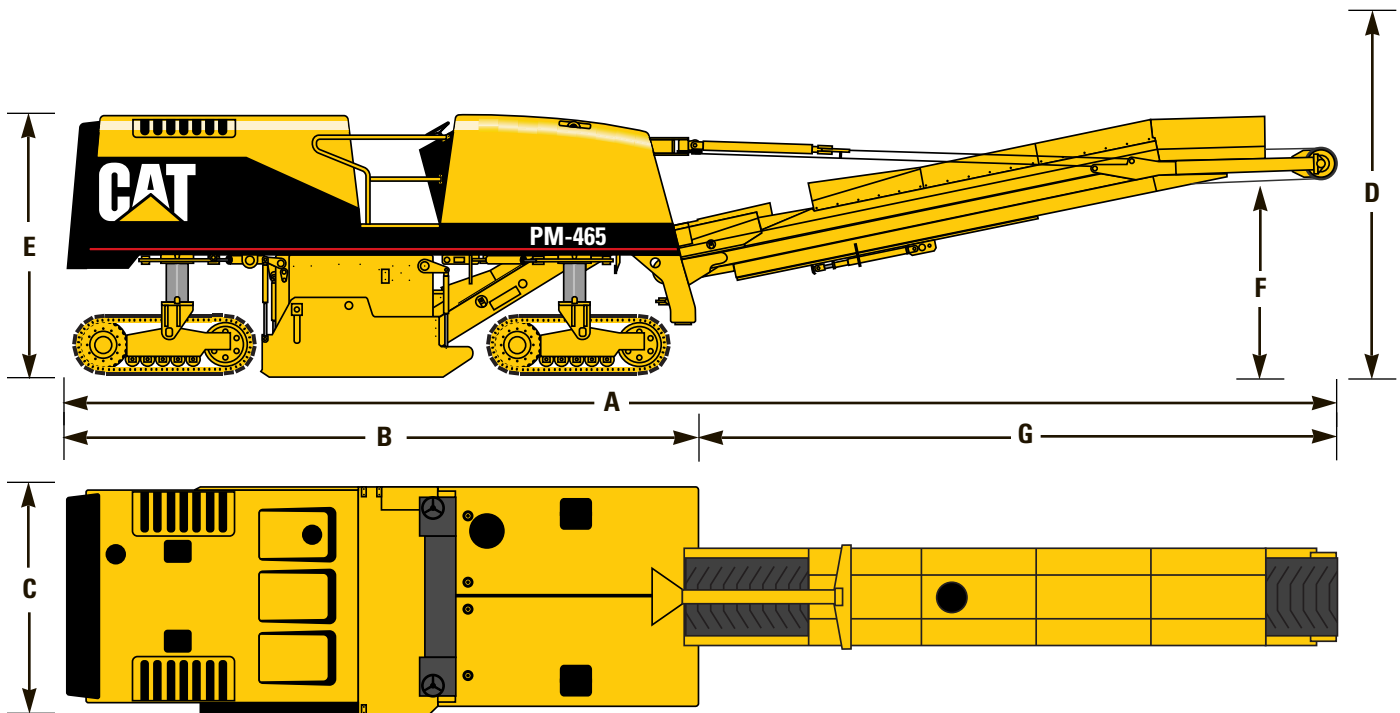
Dimensions

Operating

Length (A)	12,83 m	42' 1"
Width (C)	2,5 m	8' 2"
Maximum Height (D)	4,6 m	15'
Maximum Truck Clearance (F)	4,25 m	13' 11"
Rotor Ground Clearance	305 mm	12"
Weight (full water and fuel tanks)	26 290 kg	57,959 lb
On front tracks	14 333 kg	31,600 lb
On rear tracks	11 956 kg	26,359 lb
Conveyor		
Discharge Conveyor Swing	45 degrees right or left	
Conveyor Width (collecting and discharge)	762 mm	30"
Discharge Conveyor Length (G)	71721 mm	23' 4"

Shipping

Length		
Base Machine (B)	6,76 m	22' 2"
With Conveyor	13,71 m	45' 0"
Height		
Base Machine (E)	2,82 m	9' 3"
Width (C)	2,5 m	8' 2"
Weight (empty water and fuel tanks)	23 404 kg	51,596 lb
On front tracks	12 390 kg	27,316 lb
On rear tracks	11 013 kg	24,280 lb



Optional Equipment

Bolt-on Tool Holder Rotor Enables quick tool holder replacement without welding.

Discharge Conveyor Cover Helps avoid spillage or blowing of fine material.

Averaging Ski Compensates for variations in road surfaces.

Machine Control Modules Additional modules can be placed in up to six different locations on the machine.

Quick Tool Change Air Compressor
Power tool circuit with quick connect fitting, flexible hose, knock-out hammer and straight and curved bits.

Conveyor Swing Float Valve Allows conveyor to move during transport.

High Pressure Washdown System Used to clean the machine after working.

Non-contacting Grade Sensor Processes grade reference and signals changes to the height of front leg cylinders.

Hydraulically Adjustable Side Plates
Facilitates work near curbs.

Ground Level Water Fill Allows water tank to be filled from the ground while working.

8 kW Generator Hydraulically driven through a load-sensing, pressure compensating pump that allows for four 120 volt outlets and two 240 volt outlets.

Total Customer Support

Parts Availability Most parts are on dealer's shelf when you need them. Computer-controlled, emergency search system backup.

Parts Stock Lists Dealer helps you plan on-site parts stock to minimize your parts investment while maximizing machine availability.

Machine Management Services
Effective maintenance programs, cost-effective repair options, customer meetings, operator and mechanic training.

Remanufactured Parts Pumps and motors, engines, fuel system and charging system components available from dealer at 20-50% of new part cost.

PM Planner Cat software program helps you schedule maintenance, plan required parts purchases, and track total maintenance costs.

Service Capability Dealer's shop or fast field service by trained technicians using latest tools and technology.

Literature Support Easy-to-use parts books, operation and maintenance manuals, and service manuals help you get maximum value from equipment.

Flexible Financing Your dealer can arrange attractive financing on the entire line of Caterpillar equipment. Terms structured to meet cash flow requirements. See how easy it is to own, lease or rent Cat equipment.

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