

# PM820 | PM822 | PM825

## COLD PLANERS



### Engine Power

U.S. EPA Tier 4 Final, EU Stage V  
Equivalent to U.S. EPA Tier 2 and EU Stage II

597 kW (800.6 hp)  
570.5 kW (765 hp)

### Milling Width

PM820  
PM822  
PM825

2010 mm (79.1 in)  
2235 mm (88.0 in)  
2505 mm (98.6 in)

See Technical Specifications for detailed engine emissions information.





## THE ASPHALT MILLING MACHINES YOU'VE BEEN WAITING FOR

Every Cat® cold planer was developed with input from milling contractors like you and the payoff is immediate:

- + INCREASED PRODUCTIVITY
- + LOWER OPERATING COSTS
- + SERVICE AND SUPPORT FROM THE CAT DEALER NETWORK



# THE CAT® PM820, PM822 & PM825 COLD PLANERS

The powerful **PM820, PM822 AND PM825** are equipped to deliver efficient performance and high production with the milling precision you need to stay competitive. With three milling widths and options available for enhanced versatility, you can customize your machine to suit numerous applications. Whether texturing a road or milling an airport runway, a configuration is available to help you meet your job requirements.



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## EFFICIENT PERFORMANCE

Automatic features optimize demand on the engine and rotor system to keep operation smooth and productive.

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## MILLING PRECISION

Achieve perfect cuts with integrated technology, System K rotors, and a Cat track design with advanced steering and traction control.

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## IMPROVED SERVICE

Designed specifically to reduce maintenance time with walk-in access to critical components, long service intervals and convenient parts availability.

# MADE TO GET THE WORK DONE

A powerful, fuel-efficient engine and effective conveyor system provide the power and performance needed to keep up with the demands of grinding through pavement hour after hour.

## FUEL-EFFICIENT POWER

The Cat 18 twin-turbo engine is optimized to reduce fuel burn and deliver the power needed to help you meet production goals. A high capacity cooling system keeps the engine at ideal temperatures for optimal fuel efficiency and lower emissions. Features like Automatic Load Control and multiple rotor speed selections optimize demand on the engine for smooth and efficient operation.

## EFFICIENT MATERIAL REMOVAL

High-capacity conveyors provide efficient removal of milled material with outstanding discharge control. A wide opening and seamless belt effectively clear the rotor chamber. Adjust the belt speed to match material type and production rate, while the built in “boost” feature provides a temporary surge in belt speed to move material quickly. The belt also reverses for faster clean-up, while magnetic vinyl covers provide quick access to inspect the rollers for wear.







**BETTER TRACTION**

**OPTIMAL MANEUVERABILITY AND CONTROL**

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## **TRACKS INSPIRED FROM A LEGACY**

The reliable track undercarriage system on Cat cold planers leverages proven designs from Cat D3 and D4 dozers. A well-engineered track geometry provides high tractive effort and better load distribution when milling deep cuts or through hard materials.

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## **ADVANCED PROPEL SYSTEM**

A robust propel system with Automatic Traction Control drives the tracks in a cross-drive pattern to maintain consistent traction for almost any application. To help optimize production, the automatic load sensing on the rotor adjusts milling speed to prevent stalls and keep you moving forward.

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## **ENHANCED MOBILITY**

Four steering modes with advanced alignment and tracking provide steering precision which is further enhanced by the large ground contact area of each track.

# DURABLE AND DEPENDABLE CUTTING SYSTEM

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The robust cutting system is designed to withstand the toughest applications and built to last with heavy steel construction and reinforced alloys to resist abrasion.

## DURABILITY DESIGNED IN

The rotor drive system features a heavy-duty dry clutch, automatic belt-tensioning to prevent slippage and two high tensile (five-rib) belts to drive the rotor. A reinforced cutting chamber enhances durability to areas exposed to high abrasion.



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## REDUCED WEAR AND MAINTENANCE

Hardened steel bolt-on wear skis run the full length of side plates and a wear shoe on the anti-slab assembly reduce wear and maintenance. System K rotors are engineered to withstand the toughest applications and reversible paddles and high strength alloys prolong component life.



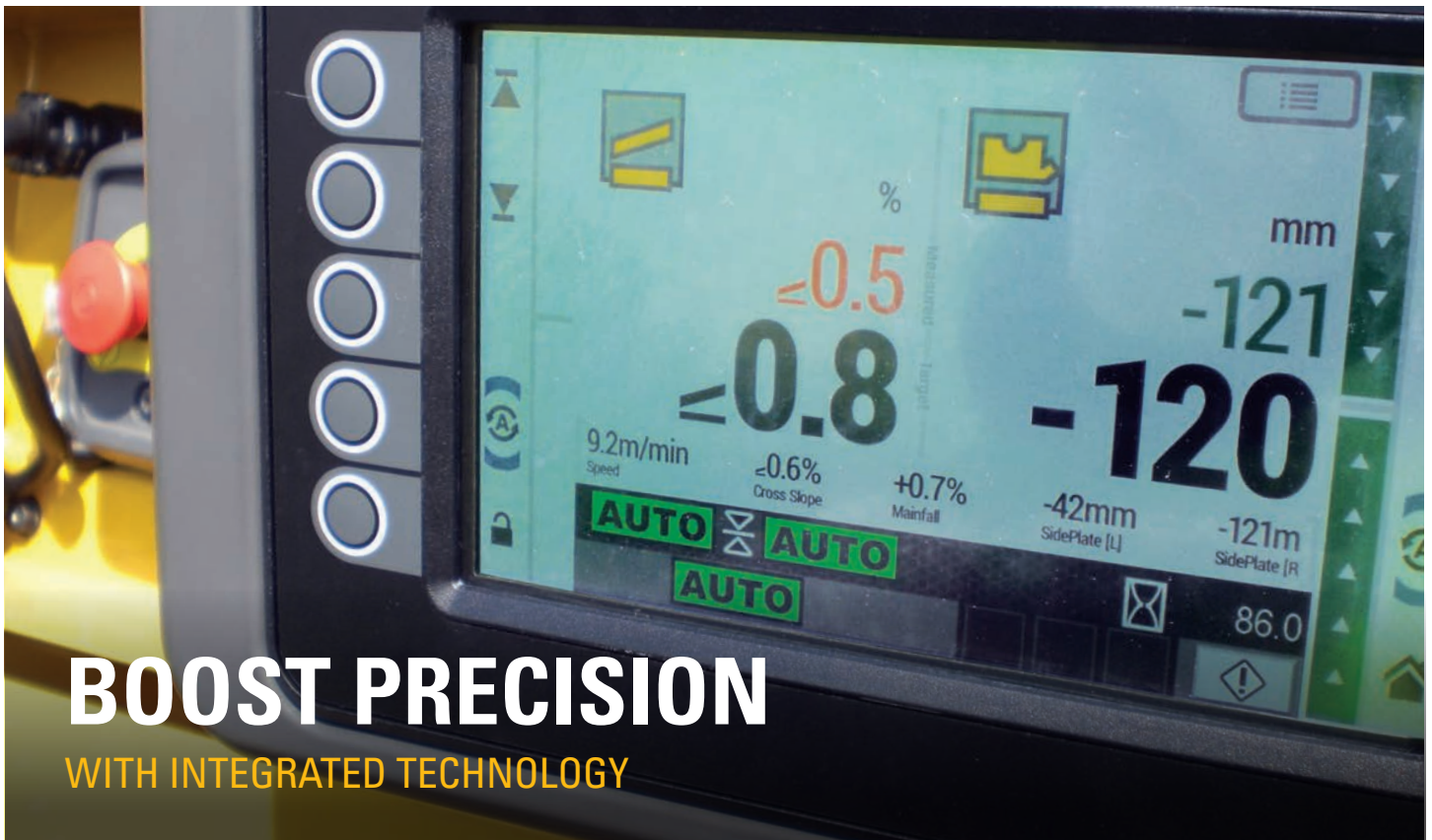
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## PRECISE CONTROL

Hydraulically controlled moldboards and side plates give you the adjustability you need, while the side plates utilize position-sensing cylinders to act as an averaging ski for grade control. The moldboard applies adjustable downpressure to keep material contained and minimize sweeping. Visible indicators from the ground and operator station make it easy to know where the rotor is at various depths.







# BOOST PRECISION

WITH INTEGRATED TECHNOLOGY

## IMPROVE ACCURACY WITH AUTOMATED FEATURES

Take the guesswork out of producing accurate and repeatable cutting results by using automated features within the integrated Cat GRADE with Grade and Slope system. Ground and machine operators can easily access elevation and slope settings by taking full control over grade and slope from any of the available control boxes. Need to switch sensors? Seamlessly swap between multiple grade or slope sensors for uninterrupted accuracy and a smooth result for any project.



### PLUNGE-CUT CAPABILITY

Adjust the speed at which the rotor drops into the cut for optimal machine control. Save your settings to reduce set up time for the next job.



### AUTOMATED CUT TRANSITION

Set and automate grade and slope transitions for tapered start or end cuts over a specified distance, eliminating the need for complicated calculations. Inputs can be saved and recalled for future projects.



### OBSTACLE JUMP

Easily clear obstacles in the cutting path using the obstacle jump feature.

## 3D 3D MILLING CAPABLE

Cat cold planers can be enhanced with full 3D milling operation to meet job specifications (additional hardware required).

COMFORTABLE WORK ENVIRONMENT

# DESIGNED FOR THE OPERATOR

## SIMPLE CONTROLS

When operating your cold planer, you need quick access to the necessary controls to get the job done. Whether up in the operator station or on the ground, we have designed the controls to be intuitive and easy to use so you can be productive throughout the entire work day.

## CLEANER WORK ENVIRONMENT

Cat cold planers are designed with optional dust ventilation and spray bar systems to maximize dust removal from the working area, keeping the air cleaner for the crew and surrounding environment.

## POWER CANOPY

Overhead obstacles are a challenge for almost any milling job site, and the PM820, PM822 and PM825 feature an optional power canopy that quickly stows and redeploys during operation with the simple push of a button. Integrated side extensions are easy to deploy on the left or right side, offering additional protection from the elements. Additional windscreen panels can be installed for increased operator comfort.



RAISE OR LOWER THE CANOPY  
**ON THE GO** WITHOUT  
INTERRUPTING PRODUCTION



**10** SECONDS  
OR LESS







## REMOTE CAMERAS

Visibility to the cutting edges, conveyor and rear of the machine can be enhanced with optional remote cameras viewable through the main touchscreen display at the operator station.



## CUSTOMIZE YOUR SPACE

Each operator console is height adjustable and can be upgraded to a suspension seat for maximum comfort.



## WORK AREA LIGHTING

Easy to use operator station and ground controls are backlit for low-light environments and work areas are well lit to keep you working day or night.



## RETRACTABLE HANDRAILS

Retractable handrails on the right side of the operator platform stow and redeploy easily when approaching obstacles that extend into the working area.



## CAT SYSTEM K ROTORS

# OPTIMIZE CUTTING CAPABILITY

Cat System K rotors are built specifically for Cat cold planers to cover a wide range of milling applications, with efficient material flow and an excellent cutting pattern. Designed to simplify maintenance and extend rotor life, System K rotors are available in multiple bit spacings to match your application needs.

### ALL-NEW TOOLHOLDER DESIGN

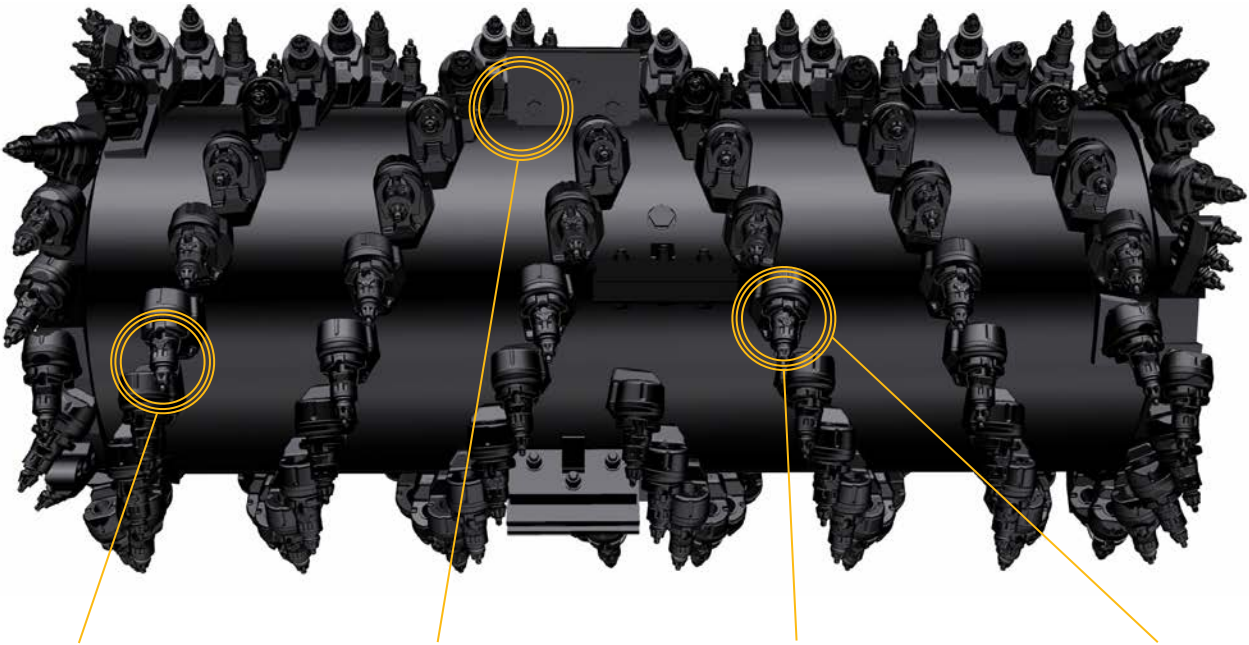
A tapered dual-retention design secures the toolholders to the rotor without retaining pins, bolts or setscrews, speeding up replacement and eliminating the need for fasteners or torquing.

### EASY BIT REMOVAL

System K rotors were designed to make changing cutter bits easier and faster. Bits can be removed using multiple methods, depending on what is easiest for you.

### ROTORS FOR MULTIPLE APPLICATIONS

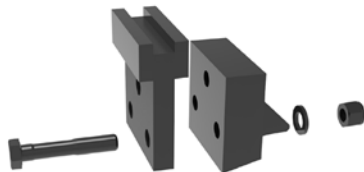
Constructed with high-strength alloys and designed to withstand the toughest of applications, System K rotors are available with numerous bit spacings to meet job requirements.



**EASY TOOTH REMOVAL**



**REVERSIBLE KICKER PADDLES**



**TAPERED DUAL-RETENTION DESIGN**



**HIGHLY FEATURED TOOLHOLDER**







**CAT DIAMOND BITS**  
**REDUCE PROJECT COSTS**

For bituminous applications without obstacles such as interstates or motorways, consider Cat Diamond bits designed specifically for System K rotors. Diamond bits stay sharp up to 80 times longer than conventional carbide teeth, keeping your machine focused more on milling and less on bit changes.

**WHY CHOOSE DIAMOND BITS**

Tips remain sharper over the lifetime of the bit to provide:

- + Increased productivity
- + Consistent cutting pattern
- + Reduced labor for bit service
- + Up to 15% fuel savings

**DIAMOND BITS**  
**STAY SHARPER LONGER**

TYPICAL 35 g  
 CARBIDE  
 BITS



DIAMOND  
 ASPHALT  
 BITS



DIAMOND  
 EXTENDED LIFE  
 BITS



**SAVES**  
**UP TO 15%**  
 IN FUEL COSTS 

Average life and exact tonnage is impacted by local aggregate and operating technique. Diamond Asphalt Bits last up to 40x the life and Diamond Extended Life Bits last up to 80x the life of typical 35 g carbide bits.



# SERVICEABILITY

DESIGNED RIGHT IN

Regular service and maintenance is key to keeping your machines functioning at optimum levels. The PM820, PM822 and PM825 were designed with long maintenance intervals, large service doors, and power hood for walk-in access to critical components and systems. Track components are maintenance-free with easy to replace track pads. When time to replace high wear components, your Cat dealer is ready to help with service, repair kits and convenient parts availability.

## TIME SAVERS

Features that make service quick and easy.

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Ground-level controls and an optional hydraulically-operated rotor turning device simplify bit removal and replacement.

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High and low pressure washdown options connect to the onboard water tank for convenient clean-up.

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During maintenance and service, the accessory drive system allows for convenient operation of select machine functions without needing to start the engine.



# CAT LINK TECHNOLOGY

## TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

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**CAT LINK** telematics helps take the complexity out of managing your equipment and job sites by gathering data generated from your machines, materials, and people – delivering it to you in customizable formats.

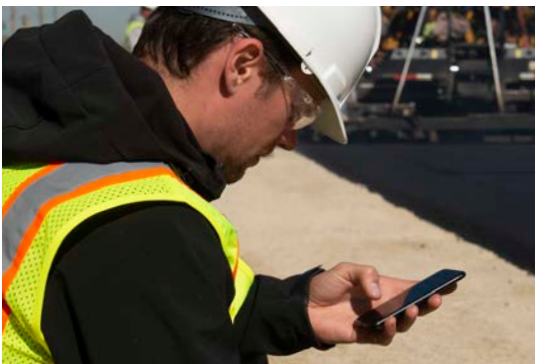


### **CAT PRODUCT LINK™**

Product Link™ collects data automatically from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.

### **VISIONLINK®**

Access product data anytime, anywhere with VisionLink® and use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your job site. With different subscription level options, your Cat dealer can help you configure exactly what you need to connect your fleet and manage your business, without paying for extras you don't want. Subscriptions are available for cellular and/or satellite-based reporting.



### **REMOTE SERVICES**

**Remote Troubleshoot** allows your Cat dealer to perform diagnostic testing on your connected machine remotely, pinpointing potential issues while the machine is in operation. Remote Troubleshoot ensures the technician arrives with the correct parts and tools the first time, eliminating the need for additional trips, saving you time and money.

**Remote Flash** updates on-board software without a technician being present, reducing time taken for updating by as much as 50%. Minimize downtime by initiating updates when convenient to keep your assets running with maximum efficiency.

The **Cat App** helps you manage your assets right from your smart phone. Track information such as fleet location or hours, receive critical alerts for required maintenance, and request service from your local Cat dealer.

# TECHNICAL SPECIFICATIONS

ENGINE	
Engine Model	Cat C18 twin-turbo
U.S. EPA Tier 4 Final, EU Stage V	
Gross Engine Power – SAE J1995	597 kW 800.6 hp
Gross Engine Power – ISO 14396	590.7 kW 792.1 hp
Equivalent to U.S. EPA Tier 2 and EU Stage II	
Gross Engine Power – SAE J1995	570.5 kW 765 hp
Gross Engine Power – ISO 14396	567.5 kW 761 hp
Operating Speed	100 m/min 328 ft/min
Maximum Travel Speed	5.9 km/h 3.7 mph

CUTTING SYSTEM	
PM820 Milling Width	2010 mm 79.1 in
PM820 Number of Bits (15 mm spacing)	178
PM822 Milling Width	2235 mm 88.0 in
PM822 Number of Bits (15 mm spacing)	185
PM825 Milling Width	2505 mm 98.6 in
PM825 Number of Bits (15 mm spacing)	203
Maximum Cutting Depth	330 mm 13.0 in
Rotor Speeds	100 / 109 / 118 rpm
Minimum Left Cutting Radius	2.00 m 6.56 ft
PM820 Minimum Right Cutting Radius	2.00 m 6.56 ft
PM822 Minimum Right Cutting Radius	1.80 m 5.91 ft
PM825 Minimum Right Cutting Radius	1.50 m 4.92 ft

MACHINE WEIGHT	
PM820 Operating Weight	36 130 kg 79,653 lb
PM820 Transport Weight	32 230 kg 71,055 lb
PM822 Operating Weight	36 700 kg 80,910 lb
PM822 Transport Weight	32 800 kg 72,312 lb
PM825 Operating Weight	37 500 kg 82,673 lb
PM825 Transport Weight	33 600 kg 74,075 lb

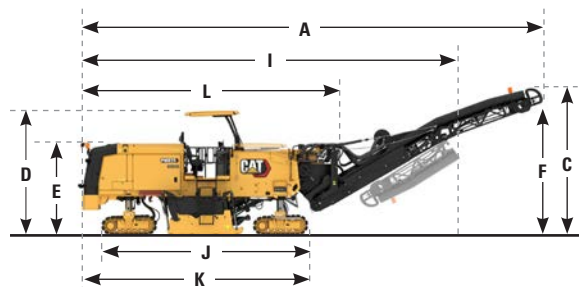
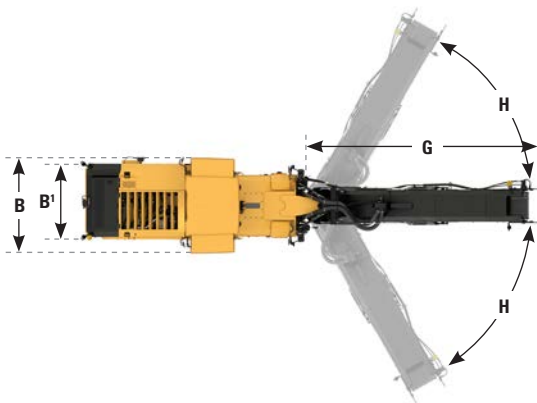
Weights shown are approximate and include:

- Operating weights include coolants, lubricants, full fuel tank, full water tank and 75 kg (165 lb) operator.
- Transport weights include coolants, lubricants, 50% full fuel tank and empty water tank.

SERVICE REFILL CAPACITIES	
Fuel Tank	1108 L 292.7 gal
Cooling System	104 L 27.5 gal
Engine Oil	65 L 17.2 gal
Hydraulic Oil	113 L 29.9 gal
Water Tank	3400 L 898.2 gal

DIMENSIONS	
<b>A</b> Overall Length (conveyor raised)	14.52 m 47.64 ft
<b>B</b> PM820 Maximum Machine Width	3.11 m 10.20 ft
PM822 Maximum Machine Width	3.11 m 10.20 ft
PM825 Maximum Machine Width	3.36 m 11.02 ft
<b>B'</b> PM820 Minimum Machine Width	2.52 m 8.27 ft
PM822 Minimum Machine Width	2.74 m 8.99 ft
PM825 Minimum Machine Width	3.01 m 9.88 ft
<b>C</b> Maximum Height (conveyor raised)	5.23 m 17.16 ft
<b>D</b> Height to Optional Canopy	4.05 m 13.29 ft
<b>E</b> Height (canopy lowered/no canopy)	3.00 m 9.84 ft
<b>F</b> Maximum Truck Clearance	4.86 m 15.94 ft
<b>G</b> Conveyor Length	8.38 m 27.49 ft
<b>H</b> Conveyor Swing	±60° from center

SHIPPING DIMENSIONS	
<b>I</b> Transport Length	12.43 m 40.78 ft
<b>B'</b> PM820 Transport Width	2.52 m 8.27 ft
PM822 Transport Width	2.74 m 8.99 ft
PM825 Transport Width	3.01 m 9.88 ft
<b>E</b> Transport Height (canopy lowered)	3.00 m 9.84 ft
<b>J</b> Length (track to track)	6.69 m 21.95 ft
<b>K</b> Length of Machine (front track to rear)	7.32 m 24.02 ft
<b>L</b> Length of Base Machine	8.33 m 27.33 ft





# STANDARD & OPTIONAL EQUIPMENT

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

OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Ground control keypads	●	
Single high-resolution LCD touchscreen display	●	
12-volt power receptacle	●	
Dual high-resolution LCD touchscreen displays		○
Hydraulically folding canopy		○
Air-ride suspension seats		○
Windscreens		○

CAT CONNECT TECHNOLOGY	STANDARD	OPTIONAL
Remote Troubleshoot capability	●	
Cat Product Link	●	
Cat GRADE	●	
Inboard ski		○
Sonic Sensor (averaging or string line)		○
Ground level grade controls and displays		○

CONVEYOR	STANDARD	OPTIONAL
Grease tensioner	●	
Material removal boost feature	●	
Dust abatement system		○
Remote camera (loading conveyor)		○

ROTOR SYSTEM	STANDARD	OPTIONAL
Automatic plunge-cut	●	
Automatic transition feature	●	
Obstacle jump	●	
Three cutting speeds	●	
System K Rotor - Standard (15 mm)	●	
System K Rotor - Coarse (25 mm)		○
System K Rotor - Coarse (18 mm)		○
System K Rotor - Fine (8 mm)		○
System K Rotor - Micro (6 mm)		○
System H Rotor - Micro (6 x 2 mm) (PM820 and PM822 only)		○
Diamond bits		○
Bit bucket trays		○
Pneumatic bit removal tool		○
Tool holder extractor		○
Rotor turning device		○

POWERTRAIN	STANDARD	OPTIONAL
Auto engine idle control	●	
High capacity cooling system	●	
Dual propel pumps	●	
Automatic load control	●	
CE certificate		○

HYDRAULIC SYSTEM	STANDARD	OPTIONAL
Dual pump hydraulic propel system	●	
Traction control	●	
Water tank transfer pump		○
Fuel transfer pump		○

SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Sampling ports for Scheduled Oil Sampling (S-O-S)	●	
Power hood	●	
Platform-level engine oil dipsticks	●	
Rotor chamber water spray system	●	
Air compressor	●	
Accessory drive system	●	
3400 L (898 gal) onboard water tank	●	
Side water fill valve	●	
High pressure washdown		○
Low pressure washdown		○
Additional spray bars		○
Remote Flash		○

SAFETY AND SECURITY	STANDARD	OPTIONAL
Platform handrails	●	
Signaling/warning horn	●	
Halogen work lighting	●	
LED work lighting (fixed, pole mounted, magnetic)		○
Warning beacon (fixed or magnetic mount)		○
Truck signal lights		○
Remote camera (rear, front, magnetic mount)		○

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Q.EHQ2688 (5/20)  
Build Number: 02A  
Global

