PM-565B
Cold Planer

Cat® 3408E HEUI Diesel Engine

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Power</td>
<td>466 kW</td>
<td>625 hp</td>
</tr>
<tr>
<td>Standard Cutting Width</td>
<td>2100 mm</td>
<td>83&quot;</td>
</tr>
<tr>
<td>Maximum Cutting Depth</td>
<td>305 mm</td>
<td>12&quot;</td>
</tr>
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</table>
Caterpillar® 3408E Turbocharged Diesel Engine
Dependable Caterpillar power meets demands of tough applications.

Core engine components deliver improved reliability and durability.

HEUI fuel system provides better fuel economy, improved low speed engine response, improved cold starting, reduced smoke and particulate emissions.

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

Improved torque and high horsepower give quick response to varying loads.

Electronic Engine Control (ECM) provides precise speed governing, optimized performance in varied conditions, engine monitoring, information management and system diagnostics.

Engine is isolated from the frame with heavy-duty rubber mounts to reduce vibration transmitted to the operator.

Hydraulically driven blower-type fan provides cooling for the remote mounted radiator and hydraulic oil cooler.

Rotor Drive
Delivers maximum available horsepower to each ground engaging tool.

Caterpillar wet clutch is the most efficient and reliable system of applying rotor power to the pavement. The rotor clutch system has a separate oil sump, pump, filter, clutch control valve and oil cooler to provide continuous cooling and lubrication.

Upper and lower sheave bearings are continuously lubricated with oil from the rotor drive clutch sump to provide long life and reduced maintenance.

Caterpillar drum drive gear reducer provides reliability and long service life. An input shear shaft is provided to protect the rotor and final drive from overload conditions.

Molded ten-rib high tensile belt provides long service life.

Automatic belt tension adjustment prevents slipping and reduces maintenance.

1 Upper Sheave
2 Tension Cylinder
3 Molded Drive Belt
4 Lower Sheave
5 Input Shear Shaft
**Rotor Mandrel**
*Designed for high production and long service life.*

- **Bolt-on tool holders** enables quick and simple replacement of breakaway tool holders without welding.
- **Triple-wrap design** provides optimum tool spacing for high production.
- **Segmented flighting** is designed to help protect base blocks and effectively move milled material onto pickup conveyor.
- **Triple-tree tool placement** on rotor ends provides optimum tool spacing to clean up loose material and reduces wear on drum when maneuvering in the cut.
- **2100 mm (83") wide rotor** does full lane milling in two passes for high efficiency.
- **Liquid-filled mandrel** dissipates surface heat and cools internal Caterpillar drum drive gear reducer.
- **Pressurized water spray system** controls dust and cools cutting tools. Automatically turns off when the machine or rotor is stopped.

**Front Loading Conveyor**
*High capacity and versatility adds to productivity.*

- **Large discharge opening** clears out the cutter box fast for increased production.
- **1020 mm (40") wide collecting conveyor** driven by two hydraulic motors loads easily and clears out the cutter box effectively.
- **915 mm (36") wide discharge conveyor** with hydraulically controlled height adjustment and two cylinders for a 45 degree swing to both sides.
- **Seamless, 25 mm (1") cleated belts** offer longer life and better control of fine particles.
- **Standard water spray** lubricates and cools cutting tools while controlling dust on collecting belt.
- **Variable belt speed** controls upper belt loading to match material type and amount.
- **Conveyor boost** casts material farther to load long trucks.
Operator’s Station

*Designed for efficiency, productivity and simple operation from either side of the console.*

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**Dual operating controls** including steering wheels, propel levers, conveyor controls, machine elevation and rear steering controls.

**Isolated platform** with heavy-duty rubber mounts reduce machine vibration transmitted to the operator.

**Computerized Monitoring System (CMS)** constantly monitors system pressures and engine condition with six modes of operation. Alerts the operator if a problem does occur with three levels of warning.

**Clear control and instrumentation layout** designed for ease of use.

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

**Warning horns and shut-down buttons** located on the operator’s station and at five ground level control stations.

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Electronic Control Module

*Technology that makes operation simple and self-diagnostics simplifies troubleshooting.*

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**Reliable Caterpillar technology** achieves maximum productivity and simplifies troubleshooting.

**Electronic Control Module (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 maximum horsepower is available from the engine. Machine always works at peak efficiency for maximum output.

**Steering control** provides four steering modes: front steer only, crab steer, coordinated steer and rear steer only.

**Interlocks** prevents normal operation of the machine in unsafe practices.
Non-Contact Grade and Slope Control
Accuracy and reliability produce high-quality results.

Non-contact sensors on each side are easy to position and read a variety of references.
Consistent accuracy to ± 3 mm (1/8”).
Simple set-up and operation from ground level or at operator’s console.
Constant read-out for rotor height and slope at ground level and at operator’s station.
Standard cross-slope sensor adds to system versatility.
A foldable wand arm on each side plate can be used as a grade reference that enables the entire length of the side plate to become an averaging device.
The controller has built-in diagnostics to simplify troubleshooting.

Serviceability
Less time on maintenance means more time on the job.

Power lift engine hood provides walk-in access to the engine and hydraulic components.
Electronic Control Module (ECM) monitors machine systems and provides self-diagnostics for operator or service personnel.
Swing-open radiator guard allows access to radiator and oil cooler.
Visual indicators allows easy check of radiator coolant, hydraulic oil tank and filters and air restriction indicator.
Hydraulic rotor service door facilitates access to the rotor.
A hydraulic pump powered by a direct current electric motor provides control of rear leg elevation, rear steering, park brake release and engine hood raise and lower when the engine is inoperable.
Chrome leg cylinders slide through leg barrel equipped with a lip seal and a replaceable nylon sleeve-type bearing.
Diesel Engine
Caterpillar® 3408E HEUI diesel engine.

### Ratings at RPM kW hp

| Gross power | 2100 | 466 | 625 |
| Net power   | 2100 | 450 | 603 |

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

- Air conditions of 25°C (77°F) and 99 kPa (29.32" Hg) dry barometer.
- 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 air cleaner, muffler and alternator.
- No derating required up to 1500 m (4921') altitude.

### Net Power kW hp Ps

| EEC 80/1269 | 450 | 603 | – |
| ISO 9249   | 450 | 603 | – |
| SAE J1349 Jan90 | 445 | 596 | – |
| DIN 70020  | –   | –   | 625 |

### Dimensions

**Bore** | 137 mm | 5.4”
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**Stroke** | 152 mm | 6”
**Displacement** | 18.01 liters | 1099 cu. in.

### Dimensions Operating

| A (Length) (conveyor up) | 15.1 m | 49' 5"
| B (Width) | 2.79 m | 9’ 2"
| C (Maximum height) | 5.04 m | 16’ 6"
| D (Minimum height) | 3.22 m | 10’ 7"
| E (Maximum truck clearance) | 4.75 m | 15’ 7"

### Dimensions Shipping

| A (Length) | 8.25 m | 27”
| B (Width) | 15.7 m | 51’ 6"
| C (Maximum height) | 2.98 m | 9’ 9"
| D (Width) | 2.56 m | 8’ 5"

### Hydraulic System

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

### Service Refill Capacities

<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
<th>Gallons</th>
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<tbody>
<tr>
<td>Fuel tank</td>
<td>946</td>
<td>250</td>
</tr>
<tr>
<td>Cooling system</td>
<td>151</td>
<td>40</td>
</tr>
<tr>
<td>Crankcase</td>
<td>45</td>
<td>12</td>
</tr>
<tr>
<td>Rotor clutch sump</td>
<td>35</td>
<td>9.2</td>
</tr>
<tr>
<td>Hydraulic system</td>
<td>132</td>
<td>35</td>
</tr>
<tr>
<td>Water spray system</td>
<td>3787</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Dimensions

| A (Length) (conveyor up) | 15.1 m | 49' 5"
| B (Width) | 2.79 m | 9’ 2"
| C (Maximum height) | 5.04 m | 16’ 6"
| D (Minimum height) | 3.22 m | 10’ 7"
| E (Maximum truck clearance) | 4.75 m | 15’ 7"

### Conveyor

- **Discharge conveyor swing**: 45 degrees right or left
- **Conveyor width (collecting)**: 1020 mm | 40”
- **Conveyor width (discharge)**: 915 mm | 36”

### Shipping

| Length | Base machine | 8.25 m | 27”
|        | With conveyor (down) | 15.7 m | 51’ 6"
|        | F (Maximum height) | 2.98 m | 9’ 9"
|        | G (Width) | 2.56 m | 8’ 5"

| Weight (empty water tank) | 34 330 kg | 75,690 lb |
| On front tracks | 17 800 kg | 39,250 lb |
| On rear tracks | 16 530 kg | 36,440 lb |
**Brakes**

**Service brake features**
- Closed-loop hydrostatic drive provides dynamic braking during operation.

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

**Water Spray System**
- Centrifugal pump supplies water to spray nozzles for dust control and cool cutting tools.
- Automatic water spray system operates only when the rotor is engaged and machine is moving forward to save water.
- System includes gauges to monitor water pressure, a low water level indicator and water control valves to conserve water usage.
- Water tank can be filled from the top of the machine or at ground level.

**Propel System**
- Four 2045 mm (80.5") long x 348 mm (14") wide tracks.
- 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.

**Speeds (forward and reverse):**
- Operating: 40 mpm – 132 fpm
- Travel: 6.0 km/hr – 3.7 mph

**Rotor Drive System**
- One ten-rib, high tensile strength drive belt drives the rotor through a gear reducer inside the mandrel.
- Heavy-duty Caterpillar wet clutch mounts directly to the engine.
- Clutch oil is routed through a separate filter and oil cooler and is used to lubricate upper and lower drive housings.
- Hydraulically powered automatic drive belt tensioner.
- Single caliper with dual disc brake installed on PTO drive shaft.

**Conveyor System**
- Raise, lower and swing controlled from operator’s station and at two ground level control stations.

**Collecting Conveyor:**
- Length: 3.74 m 12’ 3"
- Width: 1020 mm 40"
- Speed: 189 mpm 620 fpm

**Discharge Conveyor:**
- Length: 8.31 m 27’ 3"
- Width: 915 mm 36"
- Max. speed: 231 mpm 760 fpm
- Speed w/boost: 293 mpm 960 fpm
- Swing: 45°

**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 of rear tracks: front tracks only, rear tracks only, crab and coordinated steering.

**Turning Radius:**
- Minimum: 4.66 m 15’ 4”

**Grade Control System**
- Electronic over hydraulic grade and slope system with manual, automatic and calibrate modes.
- Two sonic grade sensors and an on-board cross slope sensor standard.
- Grade sensors read any reference between 457 mm (18") and 1400 mm (55") from bottom of sensor.
- Constant display of rotor height and slope at ground level and operator’s stations.
- Controller has built-in diagnostics to simplify troubleshooting.

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**Rotor Assembly**
- Triple-wrap flighting provides optimum tool spacing for high production.
- Bolt-on tool holders enables quick and simple replacement of breakaway tool holders without welding.
- Cutting tools are drive-in, knock-out style for fast replacement.
- Rotor mandrel is liquid-filled to dissipate surface heat and cool the internal drum drive gear reducer.

- Cutting width: 2100 mm 83"
- Cutting depth: 305 mm 12"
- Diameter (to tool tips): 1168 mm 46"
- Number of tools: 170

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**Rotor Housing**
- Large discharge opening clears out the rotor housing fast for increased production and reduced tool wear.
- Side plates have a wear-resistant ski for reduced wear and longer life.
- Floating moldboard with adjustable down pressure standard.
- A panel on the rear door can be removed to windrow the milled material directly behind the machine.
- Height control for rotor and moldboard located at operator’s station and at two ground level control stations.

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**PM-565B specifications**
Optional Equipment

**Discharge Conveyor Cover** helps avoid spillage or blowing of fine material.

**Averaging Ski** compensates for variations in road surfaces.

**Hydraulically Adjustable Side Plates** facilitates work near curbs.

**Auxiliary Rotor Drive** easily turns rotor during tool inspection and replacement.

**High Pressure Washdown System** used to clean the machine after working.

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

**Hydraulically Operated Front Rotor Chamber Door** provides down pressure ahead of the rotor to minimize slabbing.

**Rotor** with 147 weld-on tool holders equipped with drive-in, knock-out style cutting tools.

**Total Customer Support**

**Parts availability** — most parts 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.

**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.

**Machine management services** — offers effective preventive 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.

**Deals the support** — total Cat dealer support to meet your needs for parts, service and financing.

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

**Literature support** — easy-to-use parts books, operation and maintenance manuals and service manuals help you get maximum value from Caterpillar equipment.

**Service capability** — dealer’s shop or fast field service by trained technicians using latest tools and technology.