

# 330D MH

Material Handler



## Engine

Engine Model	Cat® C9 ACERT™	
Net Flywheel Power	200 kW	268 hp

## Weights

Operating Weight	44 627 kg	98,386 lb
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## Operating Specifications

Max. Reach – 6.1 m (20'0") Stick	14.6 m	47 ft 11 in
Max. Reach – 7.6 m (24'11") Stick	16 m	52 ft 6 in

## 330D MH Material Handler

*The D Series is tough, dependable, and incorporates innovative features for improved performance.*

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### 330D MH Material Handler

Special features provide for aggressive performance, reliability, and excellent productivity. **pg. 4**

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### 330D MH Two-Piece Caterpillar® Front Linkage

Caterpillar 330D Material Handler fronts are purpose designed and built for excellent reach, flexibility, and lift performance to meet all requirements of material handling applications. **pg. 5**

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### Engine

- ✓ ACERT™ Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions to meet U.S. EPA Tier 3 emission regulations, with exceptional performance capabilities and proven reliability. **pg. 6**

*More powerful engine, improved cooling system, increased hydraulic pressure, and cab riser options lead to increased productivity and lower operating cost.*



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**Structures**

The 330D MH structural components are the backbone of the machine's durability and provide for excellent stability. **pg. 7**

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**Work Tools – Attachments**

A variety of grapples and magnets are available to maximize machine performance in material handling applications. **pg. 8**

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**Serviceability and Complete Customer Support**

Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. **pg. 9**



✓ *New Feature*

## 330D MH Material Handler

*Special features provide for aggressive performance, reliability, and excellent productivity.*



**Fixed Riser.** Cat® designed and built, 1.95 m (6'5") manual tilt cab riser provides for operating height with excellent visibility for loading and unloading processing equipment, trucks, and rail cars. Access to the cab is provided by a ladder to the platform extending around the cab riser. This platform allows for windshield cleaning. The cab riser can be manually tilted forward 90 degrees for shipping.

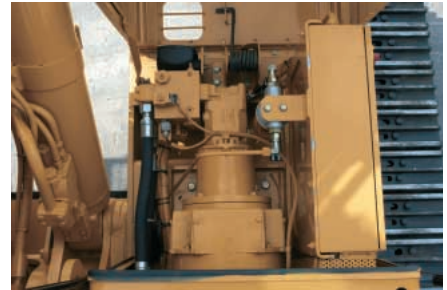


**Hydraulic Cab Riser.** Optional hydraulic cab riser provides up to 2.6 m (8'6") of additional operating height. There is easy access to the cab platform provided by handrails attached to the riser.

**Operator Controls.** The ability to modulate grapple open-close function is provided on the right side joystick. The rotate function is also modulated by using a slider switch mounted on the joystick.



**Cooling System.** External debris filters allow easy access for cleaning. This prevents clogging from dirt and dust entering the cooling system. The optional automatic reversing fan purges dirt and dust from the cooling system.



**Generator Set.** A 20 kW (26.8 hp) hydraulically driven generator set can power magnets up to 1.68 m (66") in diameter.

## 330D MH Two-Piece Caterpillar Front Linkage

*Caterpillar 330D Material Handler fronts are purpose designed and built for excellent reach, flexibility, and lift performance to meet all requirements of material handling applications.*

### **Cat® Two-Piece Front Linkage.**

Offers a maximum horizontal reach of 16 m (52'6") from swing center and maximum vertical reach of 16.9 m (55'5"). This front is an excellent match for the 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) grapple or a 1.68 m (66") magnet.

An optional 14.6 m (47'1") two-piece front linkage has a maximum vertical height of 15.8 m (51'11"). This front is an excellent match for the 1.15 m<sup>3</sup> (1.5 yd<sup>3</sup>) Orange Peel Grapple or the 1.68 m (66") Walker magnet.



### **Material Handling Booms and Sticks.**

Designed and built for performance and long service life.

### **Welded Box-Section Structures.**

Efficiently designed with thick, multi-plate fabrications in high stress areas, which allows structures to flex, dissipating stress and maximizing strength.

### **Stress Relieving Booms and Sticks.**

Maximizes strength and minimizes structure weight.



**Dual Stick Cylinders.** Provides excellent geometry for working close in to the machine or at full reach.

**Heavy Lift.** Provides additional lift capacity for handling of heavy, robust objects.

## Engine

*ACERT™ Technology meets U.S. EPA Tier 3 emission regulations, with exceptional performance capabilities and proven reliability.*



**Engine.** Six-cylinder, turbocharged engine built for power, reliability, and economy will allow the machine to consistently perform at high levels. The Cat® C9 engine is designed for low emissions and will meet EPA Tier 3 emissions requirements.

**Performance.** The 330D MH, equipped with the C9 engine with ACERT™ Technology, provides 9% more horsepower as compared to the C9 in the 330C MH.

### **Electronic Control Module.**

The Electronic Control Module (ECM) works as the “brain” of the engine’s control system, responding quickly to operating variables to maximize engine efficiency. Fully integrated with sensors in the engine’s fuel, air, coolant, and exhaust systems, the ECM stores and relays information on conditions such as RPM, fuel consumption, and diagnostic information.

### **Automatic Engine Control Speed.**

The two-stage, one-touch control maximizes fuel efficiency and reduces sound levels.

### **ADEM™ A4 Engine Controller.**

The ADEM™ A4 electronic control module manages fuel delivery to get the best performance per liter of fuel used. The engine management system provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It tracks engine and machine conditions while keeping the engine operating at peak efficiency.

## Structures

*The 330D MH structural components are the backbone of the machine's durability and provide for excellent stability.*



### **High and Square Undercarriage.**

Provides excellent over-the-side stability required to handle heavy loads and improve productivity.

Provides excellent ground clearance required to clear obstacles.

Stands up in the toughest applications.

Modified X-shaped, box-section carbody provides excellent resistance to torsional bending.

Upper structure weight and stresses are distributed evenly across the full length of the track roller frame.

**Robotic Welding.** Up to 95% of the structural welds are done robotically, which achieves up to three times the penetration of manual welds for improved durability.

**Heavy Duty Upper Frame.** The upper frame is specifically designed for the scrap and material handling applications. It is built of higher strength material and thicker steel sections to handle increased swing loads from the longer front and heavier counterweights used in material handling.

## Work Tools – Attachments

*A variety of grapples and magnets are available to maximize machine performance in material handling applications.*



**Walker Magnets.** The Walker 1.68 m (66") Lift Master magnet can be used with the 330D MH. These magnets have been designed and engineered for scrap processing applications. Ask your dealer salesperson for information on the Walker Magnet.



**Orange Peel Grapples.** The 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) and the 1.15 m<sup>3</sup> (1.5 yd<sup>3</sup>) Orange Peel Grapples are available attachments.

**Work Tool Selection.** When choosing a work tool, please consider the work tool application, the variation of the density of material to be handled and productivity requirements. Check with your Cat® dealer for more details on specifications, sizes, and other work tool types.



## Serviceability and Complete Customer Support

*Simplified service and maintenance features save you time and money. Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment.*

**Ground Level Service.** The design and layout of the 330D MH was made with the service technician in mind. Many service locations are easily accessible at ground level allowing critical maintenance to get done quickly and efficiently.

**Pump Compartment.** A service door on the right side of the upper structure allows ground-level access to the pump and pilot filter.

**Radiator Compartment.** The left rear service door allows easy access to the engine radiator, oil cooler, and air-to-air-after-cooler. A reserve tank and drain cock are attached to the radiator for simplified maintenance.

**Air Filter Compartment.** The air filter features a double-element construction for maximum cleaning efficiency. When the air cleaner plugs, a warning is displayed on the monitor inside the cab.

**Capsule Filter.** The hydraulic return filter, a capsule filter, is situated outside the hydraulic tank. The filter prevents contaminants from entering the system when hydraulic oil is changed and keeps the operation clean.

**Fan Guard.** Engine radiator fan is completely enclosed by fine wire mesh, reducing the risk of an accident.

**Diagnostic and Monitoring.** The 330D MH is equipped with S-O-S<sup>SM</sup> sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Cat® Electronic Technician (Cat® ET) service tool is located in the cab.

**Extended Service Interval.** The 330D MH service and maintenance intervals have been extended to reduce machine service time and increase machine availability.



**Cat® Dealer Maintenance.** Choose from your Cat® Dealer's wide range of maintenance services at the time you purchase your machine. Preventive Maintenance will help you to avoid unscheduled repairs and diagnostic programs such as Scheduled Oil Sampling and Technical Analysis are available.

**Product Support.** You will find nearly all parts at our dealer parts counter. Cat® Dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. You can also save money with remanufactured components.

**Machine Selection.** Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What production is needed? Your Cat® dealer can provide recommendations.

**Customer Support Agreements.** Cat® Dealers offer a variety of product support agreements, and work with customers to develop a plan that best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer's investment.

## Engine

Engine Model	Cat® C9 ACERT™	
Net Flywheel Power	200 kW	268 hp
Net Power – ISO 9249	200 kW	268 hp
Net Power – SAE J1349	188 kW	252 hp
Net Power – EEC 80/1269	200 kW	268 hp
Bore	112 mm	4.41 in
Stroke	149 mm	5.87 in
Displacement	8.8 L	537 in <sup>3</sup>

- The 330D MH meets the U.S. Tier 3 exhaust emissions requirements.
- Net Power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No engine power derating required below 2300 m (7,500 ft).

## Operating Specifications

Cab Riser – Fixed	1.96 m	6 ft 5 in
Cab Riser – Hydraulic	2.6 m	8 ft 6 in
Generator Set	20 kW	26.8 hp
Max. Reach – 6.1 m (20'0") Stick	14.6 m	47 ft 11 in
Max. Reach – 7.6 m (24'11") Stick	16 m	52 ft 6 in

## Hydraulic System

Maximum Flow (each of two pumps)	280 L/min	74 gal/min
Max. Pressure Implements	35 000 kPa	5,076 psi
Max. Pressure – Heavy Lift	36 000 kPa	5,221 psi
Max. Pressure Travel	33 784 kPa	4,900 psi
Max. Pressure – Swing	29 400 kPa	4,264 psi
Pilot System Max. Flow	43 L/min	11 gal/min
Pilot System Max. Pressure	3900 kPa	566 psi
Rotate Circuit for Grapple Max. Flow	49 L/min	13 gal/min
Rotate Circuit for Grapple Operating Pressure	13 790 kPa	2,000 psi
Generator Auxiliary Pump Max. Flow	159 L/min	42 gal/min
Generator Auxiliary Pump Max. Pressure	17 237 kPa	2,500 psi

## Weights

Operating Weight	44 627 kg	98,386 lb
Upper	11 782 kg	25,975 lb
Counterweight	8313 kg	18,327 lb
Undercarriage (includes carbody)	15 252 kg	33,625 lb
Two-Piece Front (with cylinders)	7259 kg	16,003 lb
Grapple/Adapter	2021 kg	4,456 lb

## Dimensions

Shipping Height – Cab Tipped	3600 mm	11 ft 10 in
Operating Width	3670 mm	12 ft 1 in
Shipping Length	12 850 mm	42 ft 2 in
Rear of carrier to end of boom	12 850 mm	42 ft 2 in

## Swing Mechanism

Swing Torque	141.1 kN-m	104,070 lb ft
Swing Speed	10 rpm	

## Track

Track Shoes	600 mm	24 in
Gauge	3600 mm	142 in
Shoes (each side)	49	
Rollers (each side)	9	
Overall Track Length	5020 mm	197.6 in

## Service Refill Capacities

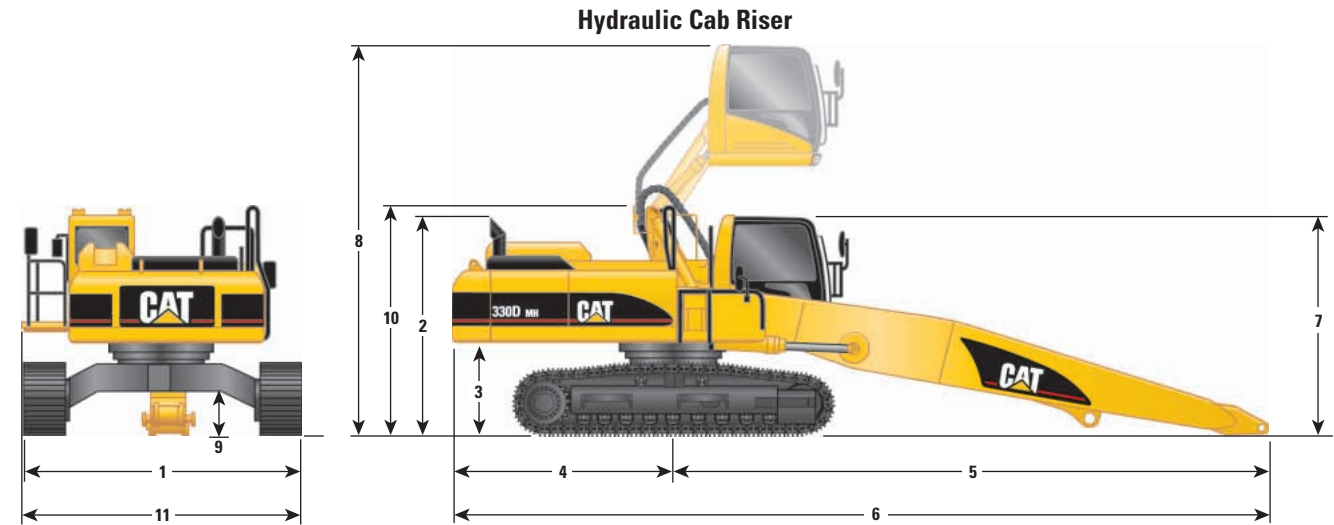
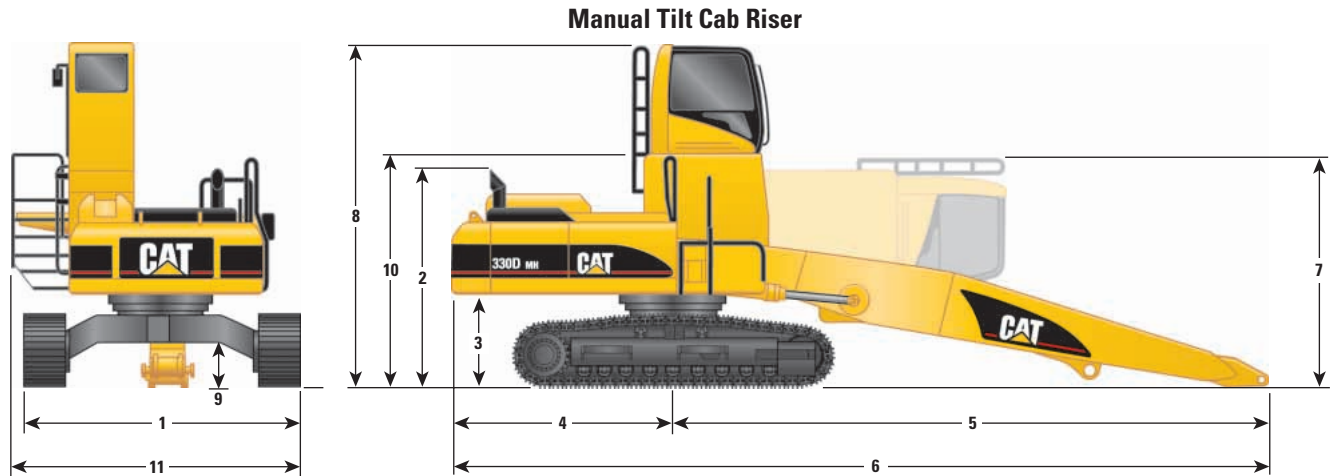
Fuel Tank	620 L	163.8 gal
Cooling System	40 L	10.6 gal
Engine Oil	40 L	10.6 gal
Swing Drive	19 L	5 gal
Final Drive (each)	8 L	2.1 gal
Hydraulic System (including tank)	410 L	108 gal
Hydraulic Tank	175 L	46 gal

## Drive

Maximum Drawbar Pull	294 kN	66,094 lb
Maximum Travel Speed	5 km/h	3.1 mph

# Dimensions

All dimensions are approximate.

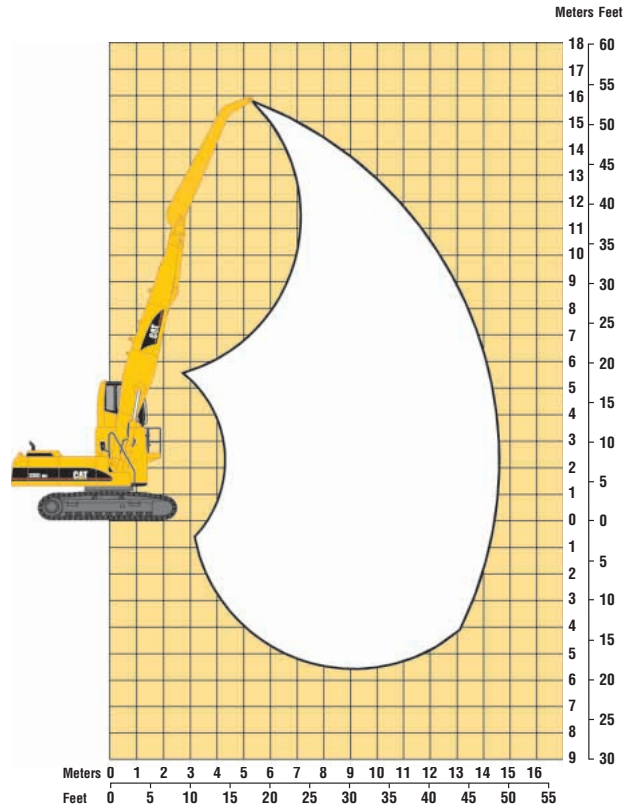


	Manual Tilt Cab Riser	Hydraulic Cab Riser
<b>1</b> Shipping Width	4267 mm (14'0")	4267 mm (14'0")
<b>2</b> Height to Top of Exhaust	3384 mm (11'1")	3384 mm (11'1")
<b>3</b> Counterweight Clearance	1474 mm (4'10")	1474 mm (4'10")
<b>4</b> Tail Swing Radius	3484 mm (11'5")	3484 mm (11'5")
<b>5</b> Swing Center to End of Boom	9197 mm (30'2")	9197 mm (30'2")
<b>6</b> Rear of Carrier to End of Boom	12 684 mm (41'7")	12 684 mm (41'7")
<b>7</b> Shipping Height – with ladder	3551 mm (11'8")	3557 mm (11'8")
Shipping Height to Top of Cab with FOGS		3557 mm (11'8")
<b>8</b> Operating Height – to top of cab	5317 mm (17'5")	
Operating Height – with FOGS	5477 mm (18'0")	
Operating Height with Cab Up to Top of Cab with FOGS		6153 mm (20'2")
<b>9</b> Ground Clearance	720 mm (2'4")	720 mm (2'4")
<b>10</b> Shipping Height – RH handrail	3567 mm (11'8")	3567 mm (11'8")
<b>11</b> Operating Width	4348 mm (14'3")	4267 mm (14'0")

# Working Ranges

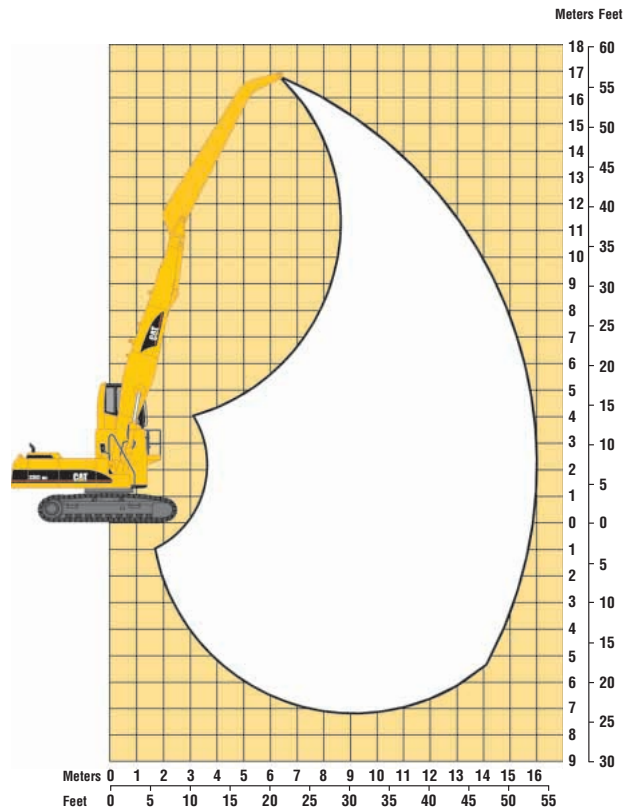
## Short Stick

Maximum reach	14.6 m	47'11"
Maximum height	15.8 m	51'11"
Maximum depth	-5.56 m	-18'3"



## Long Stick

Maximum reach	16.0 m	52'6"
Maximum height	16.9 m	55'5"
Maximum depth	-7.06 m	-23'2"





## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### BOOM

- 9.2 m (30'2") MH Boom
- Includes high pressure twig welded steel tubes

### ELECTRICAL

- 80 ampere alternator
- Working lights, cab mounted (two)
- Horn
- Light, storage box mounted

### OPERATOR ENVIRONMENT

- Bolt on FOGS capability
- Polycarbonate windows except laminated glass in retractable front windshield/tempered glass in removable lower windshield and sliding upper door window
- Rear window exit

- KAB 84/E4P suspension seat with adjustable armrest and 76 mm (3") retractable seat belt (cloth)

### Monitor

- Full graphic and full color display with language capability, warning information, filter, and fluid
- Working hour information
- Machine condition, error code and tool mode setting information
- Start up level check for hydraulic oil, engine oil, and engine coolant change information

### Pop-Up skylight, with sunscreen

### Windshield wiper/washers (upper/lower)

### Positive filtered ventilation

### Bi-level air conditioner with auto climate control heater and defroster

### Instrument panel and gauges

### Interior lighting

### Coat hook

### Ashtray with lighter

### Literature compartment

### Storage compartment suitable for a lunch box

### Neutral lever for all controls

### Pre-start monitoring system (alert if there is a shortage of hydraulic oil, engine oil, or engine coolant)

### Modulated grapple open-close controls using RH joystick

### Toggle switch in RH console to switch between magnet and grapple operation

### Travel control pedals with removable hand levers

### Platform next to cab for improved access

### Washable floor mat

### Sunscreen on windshield

### Beverage holder

### AM/FM Radio with two stereo speakers

### POWER TRAIN

- Cat® C-9 Diesel engine with 24V electric starting
- Emissions package to meet EPA Tier 3 requirements
- Radial seal air filter
- Automatic engine speed control with manual return to idle (not functional when hydraulic generator is in operation)
- Water separator in fuel line
- Power mode selector (2 modes)
- Two speed auto-shift travel
- Side by side cooling package
- Removable external debris filter covering air inlets (Hi-Ambient)
- Straight line travel
- Muffler
- Air precleaner
- Block Heater
- Electric priming pump

### UNDERCARRIAGE

- High square carbody
- Hydraulic track adjusters
- Track type undercarriage with grease lubricated seals
- Idler and rear section track guiding guards
- 600 mm (24") triple grouser shoes (49 sections)
- Heavy duty track rollers

### OTHER STANDARD EQUIPMENT

- Heavy duty upper frame with bottom guards
- Door locks, caps locks, and Caterpillar one key security system
- Mirrors (frame-right, cab-left)
- 8330 kg (18,375 lb) Material Handling Counterweight
- Automatic swing parking brake
- Fine swing control
- Travel alarm
- Ether and cold weather starting aids
- Secondary engine shut off switch
- Extra batteries/Heavy duty starter
- Cold Start receptacle
- Crosshead adapter
- Product Link ready

### HYDRAULIC SYSTEMS

- Fully pressurized hydraulic system
- Auxiliary pump and lines to drive generator
- Medium pressure auxiliary hydraulic circuit for powering rotating grapples (includes pump, valve with flow control and lines)
- High pressure grapple open/close hydraulic circuit, flow control on grapple open and shutoff valves at end of stick
- Regeneration circuit for boom and stick
- Boom and stick lowering check valve
- Heavy Lift Mode

## Optional Equipment

*Optional equipment may vary. Consult your Caterpillar dealer for details.*

One of two stick options MUST be chosen:

Stick, 7.6 m (24'11") Material Handling

Stick, 6.1 m (20'1") Material Handling

One of two cab riser options MUST be chosen:

1.9 m (6'5") manual tilt cab riser

2.6 m (8'6") hydraulic cab riser

Guard, falling objects

Fan, auto reversing

Exit, secondary rear window with an internal and external opening provisions mandatory for Province of British Columbia, Canada

20 kW (26.8 hp) hydraulic driven solid state genset

Magnet-Scrap Handling

1.68 m (66") Walker Lift Master Series

Grapple-four tine, Orange Peel

0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>)

1.15 m<sup>3</sup> (1.5 yd<sup>3</sup>)

# 330D MH Material Handler

For more complete information on Cat products, dealer services,  
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Featured machines in photos may include additional equipment.  
See your Caterpillar dealer for available options.

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