

# 330D MH

## Waste Handler



### Engine

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

### Weights

Operating Weight	38 093 kg	83,980 lb
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### Operating Specifications

Max. Reach	9.4 m	31 ft
Cat® Cab Riser	2595 mm	102 in

## 330D MH Waste Handler

*The 330D MH Waste Handler incorporates many design features specifically for transfer station applications that will improve uptime and productivity.*

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### Front Linkage

- ✓ The 330D MH Waste Handler front linkage is designed to provide the excellent reach and durability necessary to meet the requirements of transfer station and demolition applications. **pg. 4**

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### Waste Handler Structures

- ✓ The 330D MH Waste Handler has many structural components that add strength to the machine to improve its durability. **pg. 5**

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### Waste Handler Guarding

- ✓ The 330D MH Waste Handler is equipped with special guarding, designed specifically for the challenges faced in waste handling applications. **pg. 6**

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### 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. The dealer will help you choose a plan that can cover everything from machine configuration to eventual replacement. **pg. 10**

*Heavy-duty boom and stick, heavy-duty upper frame, heavy counterweight, special guarding, D Series hydraulic performance, turbine precleaner, hydraulic cab riser and cooling system filter package lead to increased productivity and maximum uptime.*



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### Waste Handling Features

- ✓ The waste handler has been designed with many benefit adding features to enhance its performance in waste applications. **pg. 7**

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### Engine and Hydraulics

Caterpillar® designed engine and hydraulics work together to give the 330D MH Waste Handler an exceptional combination of speed and power required in waste and demolition applications. **pg. 8**

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### Work Tools

Mechanical and hydraulic work tools are offered by Caterpillar to maximize machine performance in waste and demolition applications. **pg. 9**



✓ *New Feature*

## Front Linkage

*The 330D MH Waste Handler front linkage is designed to provide the excellent reach and durability necessary to meet the requirements of transfer station and demolition applications.*



**Heavy-Duty Boom and Stick.** The heavy duty reach boom and heavy duty 3.2 m (10.5 ft) stick are more robust than the standard reach boom and stick. The “heavy-duty” features include thicker plates throughout the design to handle the increased loading experienced in transfer station applications.

The front linkage has a maximum horizontal reach of 9.4 m (31 ft) and maximum vertical pin height of 8.8 m (29 ft). Thus, the working range of the machine provides an excellent match for loading hauling units from a platform or from level ground.

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

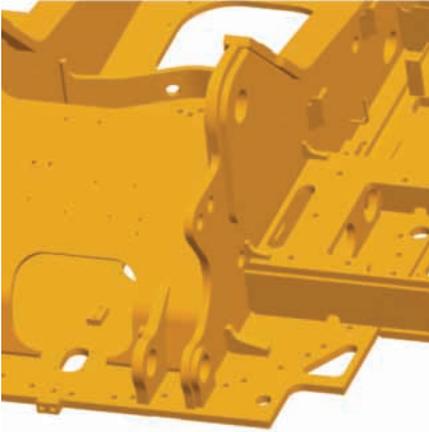
The boom and stick are designed and built for maximum durability and performance. Efficient design of welded box-section structures with thick, multi-plate fabrications and internal baffle plates in high stress areas maximizes strength and durability required for the loading conditions of transfer stations and demolition applications.

### **Stress Relieved Boom and Stick.**

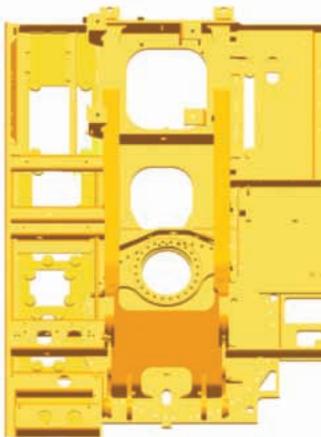
The boom and stick are stress relieved to maximize the strength of the weld joints. The process of stress relieving also allows for the structure weight to be minimized, allowing heavier payload capacity.

## Waste Handler Structures

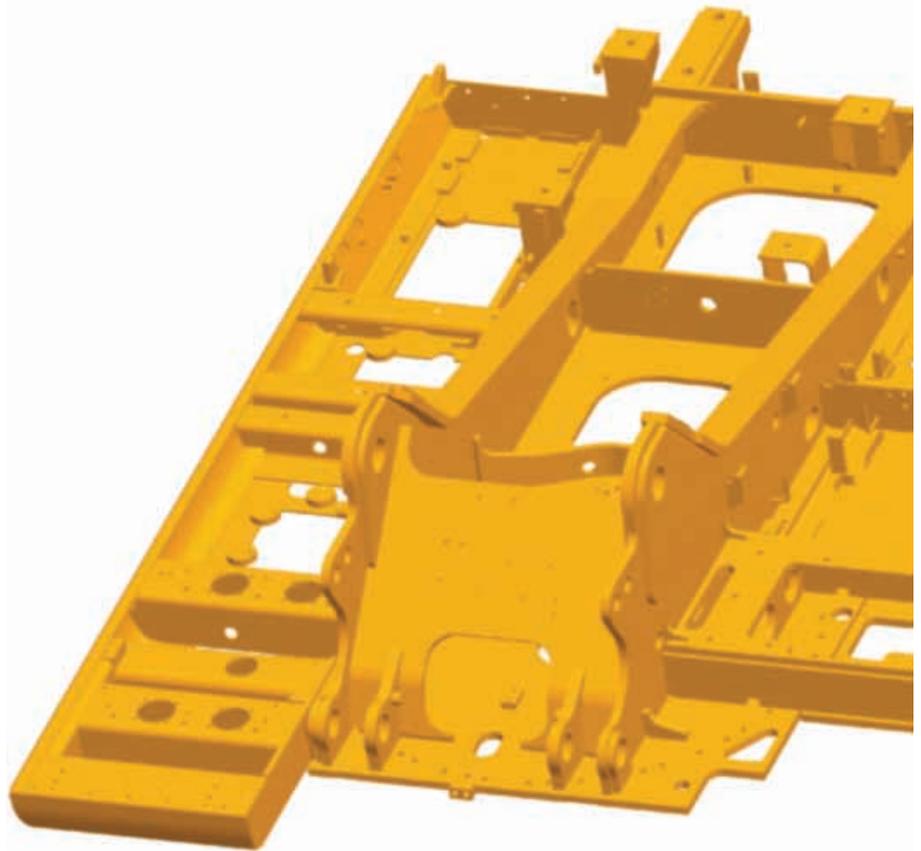
*The 330D MH Waste Handler has many structural components that add strength to the machine to improve its durability.*



**Heavy-Duty Upper Frame.** Upper box-section reinforcement on the upper frame provide additional strength for improved durability.



Horizontal mounting plate provides more surface area for swing drive and swing bearing mounting bolts to handle increased loading.



The heavy-duty upper frame has many specifically designed features for added strength and improved durability in waste handling applications. It is composed of higher strength material and thicker steel sections to handle the increased loading activity seen in waste transfer stations and demolition applications.

Boom tower double plates add thick steel reinforcements to handle the greater stresses caused by increased loading.

Box-section cylinder mounts allow for improved resistance against increased torsional loads and payloads.

## Waste Handler Guarding

*The 330D MH Waste Handler is equipped with special guarding, designed specifically for the challenges faced in waste handling and demolition applications.*



**Rubber Bumpers.** The rubber bumpers provide much needed guarding to protect the sheet metal of the machine from being damaged while maneuvering in tight areas.

**Swivel Guard.** The swivel guard, designed specifically for waste applications, protects the swivel from the wrapping of debris. This will allow more uptime through the decrease in maintenance associated with removing video tape and wire from the swivel.

**Swing Bearing Guard.** The swing bearing guard is a bolt on guard that protects the swing bearing from any damage by shielding it from any potential sources of wrapping such as video tapes and wire. It also prevents packing of debris around the swing bearing.

**Falling Object Guards.** The optional falling object guard protects the cab and front windshield from debris in transfer stations.

## Waste Handling Features

*The waste handler has been designed with many benefit adding features to enhance its performance in waste applications.*



### Trash Resistant Cooling System.

A Trash Resistant Cooling arrangement reduces cooling system maintenance and downtime when operating in environments with large amounts of airborne debris such as feeding shredders in scrap applications, waste transfer stations, demolition and forestry applications. This package will also help avoid costly engine and hydraulic repairs and downtime resulting from overheating caused by a plugged cooling system. This arrangement is standard on the 330D MH Waste Handler.

### Trash Resistant Cooling Features.

- Debris Filters – These stainless steel mesh filters trap debris before it enters the house, keeping it out of the radiator and oil cooler. These filters can be easily removed and cleaned. A second set of filters minimizes downtime, allowing the operator to keep working while the first set is cleaned.
- Hydraulic Automatic Reversing Fan.

**Cooling System.** The cooling fan is hydraulically driven and controlled by the ECM. The optimum fan speed is calculated based on the ambient temperature, coolant temperature and hydraulic oil temperature. This unique feature assists in the management of engine power and improves noise efficiency. The C9 delivered a completely new layout that separates the cooling system from the compartment. The auto reversing fan is controlled by the ECM and is adjustable.

**Heavier Counterweight.** The 330D MH Waste Handler has been outfitted with a counterweight that is 25% heavier than a standard 330D L counterweight for better stability while handling waste or demolition debris.

**Cab Riser.** The standard 2.6 m (8.5 ft) cab riser provides for elevated operating height to improve visibility while loading waste into a hauling unit and allows the operator to see over obstructions in the transfer station.

**Turbine Precleaner.** The standard turbine precleaner helps keep debris away from the cooling system by removing debris from the air intake.

The 330C MH Waste Handler is also equipped with the SyKlone Optimax dual stage engine precleaner which purges remaining debris from intake air, providing longer air filter and engine life.

### SyKlone Gideon Cab Air Precleaner.

This cab air precleaner extends cab air filter life, increases operator comfort by effectively eliminating dust and odor, and keeps evaporator and heater coils clean.

**Cab Mounted Beacon.** The cab mounted beacon flashes whenever the master disconnect is on.

**In-cab Master Disconnect.** An additional master disconnect switch is provided in the cab for easier operator access.

## Engine and Hydraulics

*Caterpillar designed engine and hydraulics work together to give the 330D MH Waste Handler an exceptional combination of speed and power required in waste and demolition applications.*



**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 Speed Control.**

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.

### **Hydraulic Cross Sensing System.**

Improves productivity with faster implement speed and quick, strong pivot turns.

**Fine Swing Control.** Fine swing control cushions swing start and stop for better implement control.

### **Hydraulic Cylinder Snubbers.**

The hydraulic cylinder snubbers at the rod-end of the boom cylinders and both ends of the stick cylinders cushion shock to improve cylinder life.

## Work Tools

*Mechanical and hydraulic work tools are offered by Caterpillar to maximize machine performance in waste and demolition applications.*



**Trash Grapple.** The Cat Work Tools trash grapple has been designed to meet the requirements of waste handling. Powered by the bucket cylinder, the trash grapple mechanically works to compact trash while placing it into the bed of the hauling unit. This helps to maximize the amount of waste that can be placed into one unit, maximizing efficiency.

## Complete Customer Support

*Cat® Dealer services help you operate longer with lower costs.*



**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 down time. 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 the best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer's investment.

**Operation.** Improving operating techniques can boost your profits. Your Cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your investment.

**Maintenance Services.** Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling, Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.

**Replacement.** Repair, rebuild, or replace? Your Cat Dealer can help you evaluate the costs involved so you can make the right choice.

**SAFETY.CAT.COM™.**

## 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	198 kW	266 hp
Net Power – EEC 80/1269	200 kW	268 hp
Bore	112 mm	4.4 in
Stroke	149 mm	5.87 in
Displacement	8.8 L	537 in <sup>3</sup>

## Operating Specifications

Max. Reach	9.4 m	31 ft
Cat Cab Riser	2595 mm	102 in
Max. Pin Height	8.8 m	29 ft

## 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 Travel	35 000 kPa	5,076 psi
Max. Pressure Swing	28 000 kPa	4,061 psi
Pilot System Max. Flow	43 L/min	11.4 gal/min
Pilot System Max. Pressure	4000 kPa	565.7 psi

## Weights

Operating Weight	38 093 kg	83,980 lb
Upper	13 848 kg	30,529 lb
Counterweight	7530 kg	16,600 lb
Undercarriage (includes carbody)	12 677 kg	27,948 lb
Two-Piece Front (with cylinders)	4039 kg	8,905 lb
Stick	1399 kg	3,085 lb
Boom	2640 kg	5,820 lb

## Dimensions

Operating Width	4403 mm	14 ft 5 in
Shipping Length	11 150 mm	36 ft 9 in
Tail Swing Radius	3500 mm	11 ft 6 in
Ground Clearance	450 mm	1 ft 6 in

## Swing Mechanism

Swing Torque	108.7 kN·m	80,142 lb ft
Swing Speed	10 rpm	

## Track

Track Shoes	800 mm	32 in
Track Gauge	2590 mm	8.5 in
Shoes (each side)	49	
Rollers (each side)	9	
Track Length	5020 mm	16 ft 6 in

## Service Refill Capacities

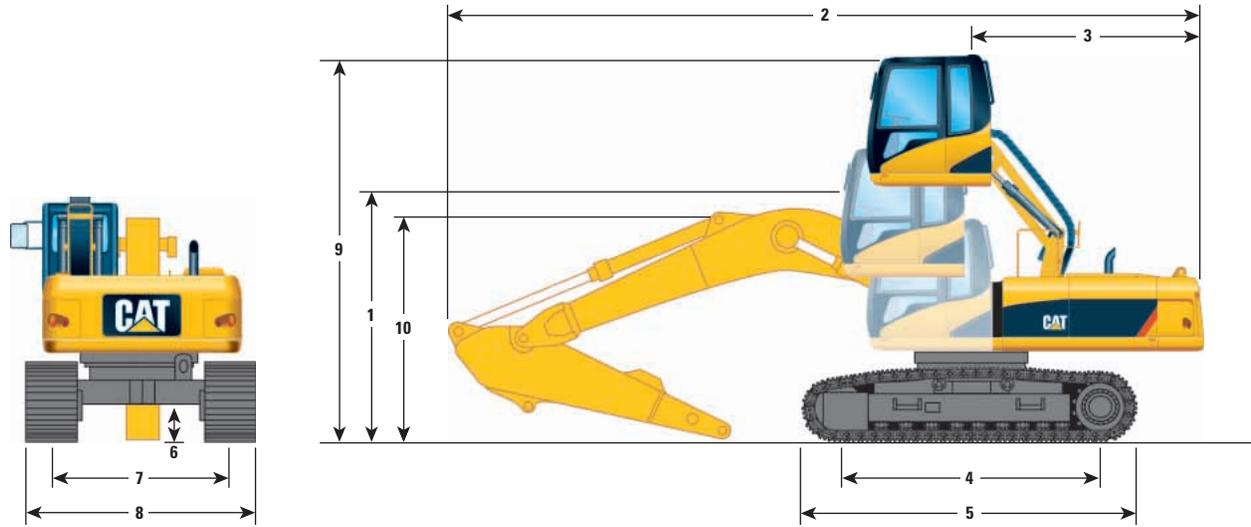
Fuel Tank	620 L	163.8 gal
Cooling System	40 L	10.6 gal
Engine Oil	40 L	10.6 gal
Swing Drive	19 L	5 gal
Final Drive (each)	8 L	2.1 gal
Hydraulic System (including tank)	410 L	108.3 gal
Hydraulic Tank	175 L	46.2 gal

## Drive

Maximum Drawbar Pull	300 kN	67,443 lb
Maximum Travel Speed	5 km/h	3.1 mph

## Dimensions

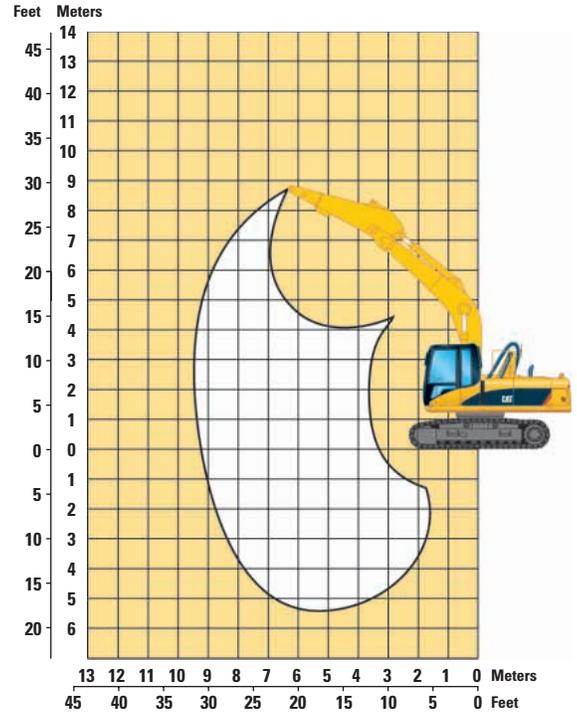
All dimensions are approximate.



<b>1</b> Shipping Height	3255 mm (10.7 ft)
<b>2</b> Shipping Length	11 130 mm (36.5 ft)
<b>3</b> Tail Swing Radius	3500 mm (11.5 ft)
<b>4</b> Length to Centers of Rollers	4040 mm (13.25 ft)
<b>5</b> Track Length	5020 mm (16.5 ft)
<b>6</b> Ground Clearance	510 mm (1.67 ft)
<b>7</b> Track Gauge	2590 mm (8.5 ft)
<b>8</b> Shipping Width with 600 mm (23.5 in) Shoes	3190 mm (10.5 ft)
<b>9</b> Cab Height (with cab in raised position)	5775 mm (18.9 ft)
<b>10</b> Cab Height (with cab in lower position)	3180 mm (10.4 ft)

# Working Range

Maximum height	8.9 m	29.18 ft
Maximum reach	9.45 m	31 ft



## 330D MH Waste Handler Lift Capacities

**CONFIGURATION** – HD Reach Boom, WH 3.2 D Stick  
D Family Bucket Linkage and No Grapple

**UNDERCARRIAGE** – Long  
**SHOES** – 600 mm (23.5 in) Triple Grouser



Load at  
Maximum Reach



Load Radius  
Over Front



Load Radius  
Over Side

Load Point Height	3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		9.0 m/30.0 ft		m ft		
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	
7.5 m 25.0 ft							*7600	*7600					
6.0 m 20.0 ft							*7700	*7700					
4.5 m 15.0 ft			*11 700	*11 700	*9400	*9400	*8200	7700	*7500	5800	*6500	5700	9.12 29.85
3.0 m 10.0 ft			*14 800	*14 800	*10 800	10 200	*9000	7400	*7900	5600	*6700	5300	9.40 30.83
1.5 m 5.0 ft			*17 000	14 500	*12 100	9700	*9700	7100	*8300	5500	*7100	5100	9.44 30.96
Ground Line			*17 800	14 000	*12 900	9400	*10 200	6900	*8400	5400	*7900	5200	9.23 30.27
-1.5 m -5.0 ft	kg	*12 800	*12 800	*17 400	14 000	*13 000	9200	*10 200	6800				
	lb	*29,000	*29,000	*37,700	30,000	*28,100	19,800	*22,000	14,600				
-3.0 m -10.0 ft	kg	*20 300	*20 300	*16 100	14 100	*12 300	9200	*9500	6800				
	lb	*46,000	*46,000	*34,900	30,300	*26,500	19,900	*20,300	14,800				
-4.5 m -15.0 ft	kg	*18 100	*18 100	*13 700	*13 700	*10 300	9500						
	lb	*39,000	*39,000	*29,300	*29,300	*22,000	20,500						

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard 2417. Rated loads are at 87% of hydraulic lifting capacity or 75% of tipping capacity over front and side. Lift Point is at stick end pin.

## Standard Equipment

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

### Electrical

- 65 ampere alternator
- Base machine light (frame)
- Lights, cab mounted (Two)
- Horn
- Pre-Start monitoring system – checks for low fluids (engine oil, coolant, hydraulic oil) prior to starting machine

### Operator Environment

- Air conditioner, heater, defroster with automatic climate control
- AM/FM radio with antenna and 2 speakers
- Ashtray with 24 volt lighter
- Beverage/cup holder
- Bolt-on Falling Object Guarding System (FOGS) capability
- Cab Glass
  - Openable and retractable two-piece front windshield
  - Sky-light, pop-up, polycarbonate
- Coat hook
- Floor mat
- Instrument panel and gauges
- Joysticks, console mounted, pilot operated
- Light – interior
- Literature compartment
- Monitor, full graphic color display
  - Multi-language capability
  - Warning, filter/fluid change, working hour information, Machine condition, error code, tool mode setting
  - Full time clock on monitor (no less than one week)
- Neutral lever (lock out) for all controls
- Polycarbonate side windows
- Positive filtered ventilation
- Pressurized cab
- Seat, suspension, with high back and head rest
- Seat belt, retractable (76 mm [3 in])
- Storage compartment suitable for lunch box cooler
- Sun shade (for skylight)
- Travel control pedals with removable hand levers
- Windshield wiper and washer (upper and lower)
- Hydraulic Cab Riser

### Engine/Power Train

- C9 with ACERT Technology
  - 2300 m (7,500 ft) altitude capability without derate
  - 24V electric starting
  - Air intake heater
  - U.S. EPA Tier 3 emission compliant
  - HEUI™ Injectors
  - Water separator in fuel line
  - Electric priming pump
  - Cold Weather Starting Package
    - Two additional maintenance free batteries
    - High capacity starter motor
    - Heavy-duty cable
    - Jump-start receptacle
    - Ether aid
    - Block heater
  - Engine SyKlone precleaner
- Cooling Package
  - High ambient, 52° C (126° F) with VSF
  - Radial seal air filter
  - Auto reversing fan
  - Automatic engine speed control with one-touch low idle
  - Two speed auto-shift travel
  - Filters on rear door for cooling
- Undercarriage
  - Grease lubricated track
  - Hydraulic track adjusters
  - Idler and center section track guards
  - Track shoes – 800 mm (32 in) triple grouser
  - Heavy-duty track rollers
  - Swing bearing guard
- Other Standard Equipment
  - Automatic swing parking brake
  - Auxiliary hydraulic valve
  - Counterweight with lifting eyes
  - Door locks, cap locks, and Caterpillar® one key security system
  - Fine swing control
  - Fully pressurized hydraulic system
  - Heavy lift
  - Mirrors (frame-right, cab-left)
  - S•O•S<sup>SM</sup> quick sampling valves for engine and hydraulic oil
  - Travel alarm
  - Wiring provision for Product Link
  - Heavy duty upper frame
  - Heavy counterweight (25% over standard)
  - Heavy duty swing bearing
  - Rubber bumpers
  - Swivel guard

## Optional Equipment

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

### Front linkage

#### Booms

Reach 6.5 m (21 ft 4 in) HD

#### Sticks

Reach 3.9 m (12 ft 10 in)

Reach 3.2 m (10 ft 6 in) HD with grapple bracket

#### Bucket Linkage

DB family w/lifting eye

#### Boom lowering control device

### Electrical

Power supply (12V – 10 Amp)

Power supply (12V – 20 Amp)

Beacon

Easy access electrical disconnect

### Guarding

Falling Object Guarding System (FOGS)

Track Guiding Guards

Sprocket end

### Operator Environment

Rear window, secondary exit

Precleaner arrangement

Seat, high back with air suspension and heater

Third pedal, straight travel

Cab air filter system

### Undercarriage

Track Shoes

800 mm (31.5 in) triple grouser

### Work Tools

Grapples (waste)

4.6 m<sup>3</sup> (6 yd<sup>3</sup>)

5.7 m<sup>3</sup> (7.5 yd<sup>3</sup>)

# 330D MH Waste Handler

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