

# D7E WH

## Waste Handler



### Electric Drive

The D7E is especially popular in Waste applications because of its productivity, maneuverability and demonstrated fuel efficiency. The Electric Drive system, powered by a Cat® C9.3 ACERT™ engine, is designed to deliver quantum leaps in improved productivity and fuel efficiency. The D7E is more productive\* – moving 10 percent more material per hour. Up to 30 percent better fuel economy, plus greater productivity, means you can move up to 35 percent more material per gallon/liter of fuel.

- Dedicated D8-size steering pump delivers responsive performance.
- Infinitely variable speed control means smooth operation with no gears to shift.
- Economy Mode automatically adjusts engine speed when machine is not under load to save you fuel. The operator's selected machine speed is maintained.
- Load-sensing hydraulics continuously adjust hydraulic power to maximize blade efficiency.
- Standard Traction Control reduces track slip.

\*All comparisons vs. D7R2.

### Operator Environment

A quiet, spacious cab with center-post design gives you outstanding visibility all around the machine. Operators can also enjoy added comforts like manually adjustable armrests and a heated/ventilated seat option. Cab-mounted heating, ventilation and air conditioning (HVAC) system provides efficient cooling.

Ergonomic controls are fully adjustable and designed for low-effort. Speed Recall allows operators to pre-set the desired forward and reverse travel speed, and then resume that speed simply by pressing a button. Implement Lock-Out prevents inadvertent operation of hydraulic attachments.

### Technology

- Cat Slope Indicate (S) shows cross slope and mainfall on the primary machine display.
- Stable Blade Control (S) complements operator input to automatically make instantaneous adjustments for smoother grading results with less effort.
- Cat AccuGrade™ (O) machine control and guidance option helps operators improve productivity and accuracy by as much as 50% over conventional methods.
- Remote monitoring with Product Link™/VisionLink® helps you manage your fleet more effectively and profitably.

(S) – Standard

(O) – Optional



# D7E WH Waste Handler Specifications

## Waste Handling Guarding and Seals

Cat Waste Handlers are designed and equipped from the factory to handle the unique challenges of landfill work.

Heavy duty hinged radiator guard helps protect fan and radiator. Designed to resist material penetration from straight-in and under the blade. Tight mesh helps prevent material entry during reversing fan purge cycle.

- Radiator door swings fully open, even with blade attached, for easier cleanout.
- Final drive clamshell seals – multi-layer final drive seal protection comprised of heavy-duty cast guards, stepped labyrinths and Kevlar seals to protect final drives/ Duo-Cone™ seals.
- Rear striker bars deflect debris from traveling up the track and damaging components like fenders or fuel and hydraulic tanks.
- Cab door screens protect the lower half of the glass doors from demolition debris, while allowing good visibility to the blade.
- Folding ladder enhances access for manual refueling and cleaning the rear window.
- Idler and pivot shaft seal guards prevent damage caused by wrapping wire or waste contaminants.
- Chassis and bottom guarding protect against impact loads. Hinged belly guard for easier cleaning access.
- Guarding provides added protection from damage to fuel tank, hydraulic tank and battery box.
- Crankcase guards help protect power train components from contact damage or debris.
- Chassis sealing – extensive rubber, foam, and steel sealing components prevent debris from entering engine and transmission compartments.
- Dozer blade hydraulic line protection with a rotating sleeve design protects lines while shedding debris.
- Precleaner with screen promotes longer air filter life.
- Insulated Cat Clean Emissions Module.
- Laminated Thermal Shields – lowers skin temperature of exhaust components and provides cooling to the turbobearings.
- Standard black hood and lift cylinder cut glare.
- Bracket on the back of the machine keeps a shovel handy for quick undercarriage cleanouts.

## Optional Waste Handling Attachments

- Enhanced clean air module increases cab air pressure to help keep dust out and provide additional air filtration, greatly increasing cab air filter life.
- LED lights for optimum visibility in low light.
- Cab roof-mounted strobe light indicating the machine is operational.
- Rear vision camera display in the front of the cab helps the operator more easily see behind the machine for greater safety.

## Cooling System

Rugged, three-part cooling system features a highly efficient aluminum bar plate radiator. Single-plane design allows easier cleaning and wide fin spacing helps reduce plugging. In cooler conditions, the hydraulic demand fan reduces speed to conserve power, save fuel and decrease sound levels. Automatic reversing fan efficiently removes debris from the cooling cores without the operator leaving the cab.

## Undercarriage

D7E waste handlers are offered in two track shoe widths. The 660 mm (26 inch) shoe has greater compacting and shredding characteristics and higher ground pressure. The 914 mm (36 inch) shoe provides greater flotation in soft underfoot conditions. Trapezoidal hole shoes are recommended for trash applications. The shoe is specially designed to shed waste that can otherwise contribute to accelerated internal track wear.

## Blade

A wide, straight landfill blade easily handles heavy or bank materials. It features a ½ inch wear plate on the moldboard and an integrated 610 mm (24 in) trash rack. With the rack, this blade has a capacity of 12.3 m<sup>3</sup> (16.1 yd<sup>3</sup>). Ask your Cat dealer about other blade options.

## Rear Attachments

Multi-shank rippers with integrated striker bars can make short work of loosening and preparing cover material. Cast-in ripper mounts allow a ripper to be mounted quickly and easily.

## Emissions Technology

The D7E meets U.S. EPA Tier 4 Final/EU Stage IV/ Korea Tier 4 emission standards. Emissions reduction technology on the D7E is designed to be transparent, with no action required from the operator. Regeneration runs automatically in the background while you work. Selective Catalytic Reduction utilizes Diesel Exhaust Fluid (DEF), which can be conveniently refilled when you refuel. A gauge on the dash shows your fluid level. When the machine is turned off, a pump will automatically purge the DEF lines to help prevent freezing. A symbol on the dash and a light/symbol on the Ground Level Service Center indicate when the purge is complete and that it is safe to turn off the electrical disconnect. If the engine/aftertreatment temperatures are high, a Delayed Engine Shutdown will activate automatically to cool the machine and then purge the lines. For complete aftertreatment information, please refer to your machine's Operation and Maintenance Manual.

**Cat EMSolutions** (Equipment Management Solutions) lets you take control of your fleet with a solution specific to your equipment management needs. Comprehensive, technology-enabled equipment management – combined with the knowledge and expertise of your Cat dealer – can provide ways to help you achieve gains that go straight to your bottom line.

## Service and Support

The D7E is designed with easy access to service points, fewer moving parts and longer service intervals to help you reduce total owning and operating costs.

- Tilt cab allows easy access to modular major components.
- Ground-level sight gauges and grouped service points for quick and easy routine maintenance.
- Modular final drives can be easily accessed for maintenance.
- Optional high-speed oil change attachment.
- Ground level service center gives easy access to battery disconnect, hour meter, remote engine shutdown and access light switches.
- LED warning indicator shows that the power train and accessory systems are energized. Indicator turns off when the systems are de-energized and safe for maintenance.

For more information about the D7E, please see your dealer or visit [www.cat.com](http://www.cat.com).

# D7E WH Waste Handler Specifications

## Engine

Engine Model	Cat C9.3 ACERT	
Global Emissions	Tier 4 Final/Stage IV/ Korea Tier 4	
Engine Power (Maximum)		
SAE J1995	201 kW	270 hp
ISO 14396	198 kW	266 hp
ISO 14396 (DIN)	270 hp	
Net Power (Rated)		
ISO 9249/SAE J1349	178 kW	238 hp
ISO 9249/SAE J1349 (DIN)	241 hp	
Net Power (Maximum)		
ISO 9249/SAE J1349	187 kW	251 hp
ISO 9249/SAE J1349 (DIN)	254 hp	
Bore	115 mm	4.5 in
Stroke	149 mm	5.9 in
Displacement	9.3 L	567 in <sup>3</sup>

- Rated power occurs at 1,700 rpm. Maximum power occurs at 1,600 rpm.
- Net power advertised is the power available at the flywheel when engine is equipped with fan at maximum speed, air cleaner, muffler and alternator.
- No derating required up to 2286 m (7,500 ft) altitude, beyond 2286 m (7,500 ft) automatic derating occurs.
- All nonroad U.S. EPA Tier 4 Interim and Final, European Union (EU) Stage IIIB and IV, and Korea Tier 4 diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (EPA)/10 ppm (EU) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (EPA)/10 ppm (EU) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214. Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your O&MM for further specific fuel recommendations.
- DEF used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

## Service Refill Capacities

Fuel Tank	430 L	113.5 gal
DEF Tank	18 L	4.75 gal
Cooling System	87 L	22.5 gal
Engine Crankcase	30 L	8 gal
Power Train	60 L	16 gal
Final Drives (each)	28 L	7 gal
Roller Frames (each)	42 L	11 gal
Pivot Shaft Compartment	7 L	1.8 gal
Hydraulic Tank	76 L	20 gal

## Weights

Shipping Weight	26 968 kg	59,456 lb
Operating Weight – LGP S WHA	31 515 kg	69,478 lb
Operating Weight – LGP U WHA	32 411 kg	71,455 lb

- Shipping Weight includes lubricants, coolant, ROPS/FOPS cab, standard track and 10% fuel.
- Operating Weight includes blade, lubricants, coolant, full fuel tank, standard track, striker box and operator.

## Drive Train

Type	Electric Drive
AC Compressor Nominal Input Voltage	320 Volts
AC Compressor Maximum Input Current	12 Amps
AC Generator and Propulsion Module Voltage	480 Volts

- Nominal current dependent on heat/humidity loading on HVAC unit.

# D7E WH Waste Handler Specifications

## Standards

ROPS/FOPS	<ul style="list-style-type: none"> <li>• Rollover Protective Structure (ROPS) meets the following criteria: ISO 3471:2008</li> <li>• Falling Object Protective Structure (FOPS) meets the following criteria: ISO 3449:2005 Level II</li> </ul>
Brakes	<ul style="list-style-type: none"> <li>• Crawler Machine Brake Requirements meets the following criteria: ISO 10265:2008</li> </ul>
	<ul style="list-style-type: none"> <li>• The declared dynamic operator sound pressure level is 76 dB(A) when “ISO 6396:2008” is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds. The cab was properly installed and maintained. The measurement was conducted with the cab doors and the cab windows closed.</li> <li>• Hearing protection may be needed when the machine is operated with an open operator station for extended periods or in a noisy environment. Hearing protection may be needed when the machine is operated with a cab that is not properly maintained, or when the doors and windows are open for extended periods or in a noisy environment.</li> <li>• The declared exterior sound power level is 110 dB(A) when the value is measured according to the dynamic test procedures and the conditions that are specified in “ISO 6395:2008.” The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds.</li> <li>• The whole body vibration information is available in HEGQ3339 “Driving Down Vibration” available from your local Cat dealer. The hand/arm vibration of this machine is below 2.5 m/sec<sup>2</sup> (8.2 ft/sec<sup>2</sup>).</li> </ul>

## Bulldozer Specifications

Blade	7S LGP	7U LGP
Blade Capacity (SAE J1265)	19.1 m <sup>3</sup> 25 yd <sup>3</sup>	22.9 m <sup>3</sup> 30 yd <sup>3</sup>
Width (over end bits)	4594 mm 15.1 ft	4698 mm 15.4 ft
Height	2425 mm 8 ft	2432 mm 8 ft
Digging Depth	631 mm 24.8 in	693 mm 27.3 in
Ground Clearance	1292 mm 50.9 in	1336 mm 52.6 in
Maximum Tilt	785 mm 30.9 in	784 mm 30.9 in
Weight*	4026 kg 8,875 lb	5282 kg 11,645 lb

\*Weight includes cylinder mounting, lift cylinder and lines, blade, push arms, trunnions, trash rack and cylinder lines (Tilt).

## Undercarriage

Type	Heavy Duty Undercarriage	
Configuration	LGP	
Number of Rollers (each side)	8	
Number of Shoes (each side)	44	
Pitch	216 mm	8.5 in
Shoe Width	915 mm	36 in
Grouser Height (MS)	70 mm	2.75 in
Length of Track on Ground (Heavy Duty)	3450 mm	136 in
Track Gauge	2286 mm	90 in
Ground Contact Area (Heavy Duty)	6.31 m <sup>2</sup>	9,792 in <sup>2</sup>
Ground Pressure (Heavy Duty) – ISO 16754	44.4 kPa	6.4 psi
Ground Clearance	472 mm	18.6 in

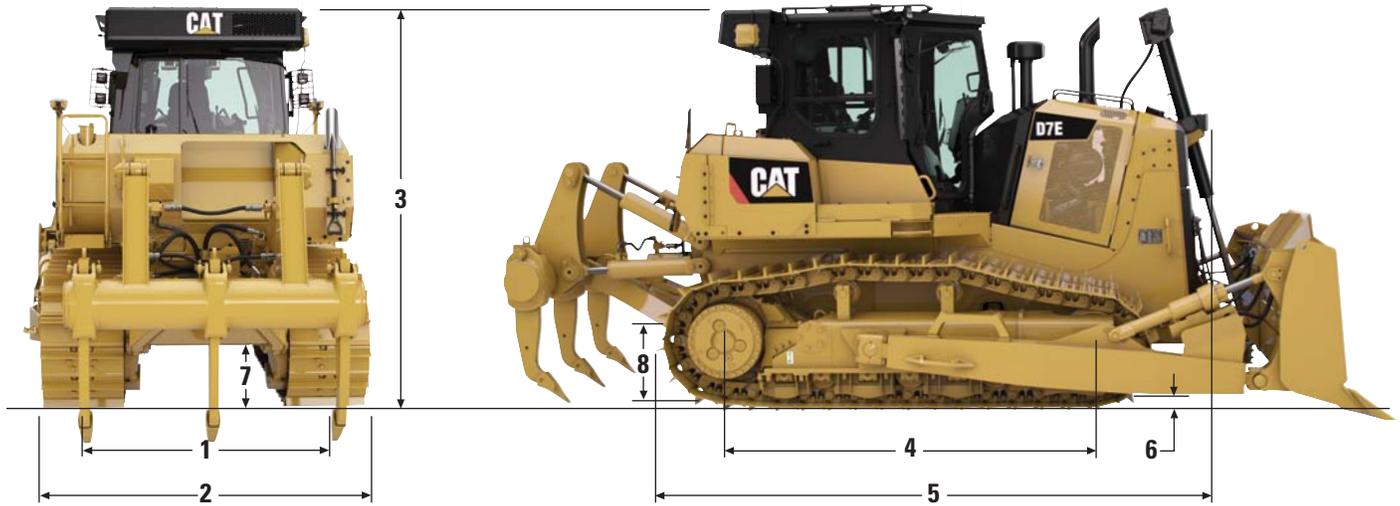
## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.2 kg of refrigerant which has a CO<sub>2</sub> equivalent 1.716 metric tonnes.

# D7E WH Waste Handler Specifications

## Dimensions

All dimensions are approximate



	<b>LGP</b>	
<b>1</b> Track Gauge	2286 mm	90 in
<b>2</b> Width of Tractor over Trunnions	3423 mm	135 in
Width of Tractor without Trunnions (std. shoes)	3200 mm	126 in
<b>3</b> Machine Height from Tip of Grouser		
Top of Stack	3365 mm	132 in
Top of Standard Cab	3392 mm	134 in
From Ground Face of Shoe	3322 mm	131 in
<b>4</b> Length of Track on Ground	3450 mm	136 in
<b>5</b> Length of Basic Tractor	4608 mm	181 in
With the following attachments add to basic tractor length:		
Ripper (with tip at ground line)		N/A
Ripper (with tip fully raised)		N/A
Drawbar	270 mm	10.6 in
S Blade	1360 mm	53.5 in
U Blade	1947 mm	76.6 in
<b>6</b> Height of Grouser	70 mm	2.75 in
<b>7</b> Ground Clearance	472 mm	18.6 in
Ground Contact Area (std. shoes)	6.31 m <sup>2</sup>	9,792 in <sup>2</sup>
Number of Shoes per Side		44
Standard Shoe Width (Moderate Service)	915 mm	36 in
Ground Pressure	44.3 kPa	6.4 psi
Pitch	215.9 mm	8.5 in
Track Rollers/Side		8
Number of Carrier Rollers		2
<b>8</b> Drawbar Height (grouser tip to center of clevis)	719 mm	28 in

## Standard Equipment

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

### ELECTRICAL

- Accessory Power Converter (APC)
- Alarm, Backup
- Batteries, Heavy Duty
- Converter, 24V to 12V, 10 Amp
- Heater, Engine Coolant, 120V
- Horn, Forward Warning
- Product Link

### OPERATOR ENVIRONMENT

- Enhanced Clean Cab
- Air Suspension Seat
- Cab Door Screens
- Armrest, Adjustable
- Bidirectional Shift Switch
- Center Post Cab, ROPS/FOPS
- Continuously Variable Speed Control
- Differential Steering
- Electro-Hydraulic Controls
- Electronic Monitoring System
- Foot Supports, Dash
- Hour Meter, Electronic
- Machine Isolation, Operator Not Present
- Mirror, Rearview
- Modular HVAC, Cab Mounted
- Radio Ready, 12V
- Seat Belt, Retractable 76 mm (3")
- Speed Recall Button
- Throttle Dial, Electronic
- Tilt Cab and Tilt Cab Jack
- Travel Control Pedal
- Wipers, Intermittent

### POWER TRAIN

- Final Drive Flange Protection Guards
- Final Drive Clamshell Guard
- Engine Thermal Shields
- Heavy Duty Final Drive Flange Guards
- Aftercooler
- Air Cleaner, Precleaner with Strata Tube Dust Ejector
- C9.3 ACERT Engine – Meets Tier 4 Final/Stage IV/Korea Tier 4 emission standards
- Continuously Variable Speed Transmission
- Coolant, Extended Life
- Drains, Ecology, Power Train

- Electronic Air Cleaner Service Indicator
- Fan, Hydraulically Driven Demand
- Final Drives, Double Reduction
- Fuel Priming Pump, Electronic
- Parking Brake, Electronic
- Starting Aid, Ether
- Water Cooled Turbocharger, Wastegated
- Water Separator
- Reversing Fan

### UNDERCARRIAGE

- Heavy Duty Track (660 mm/26" MS Trap)
- Heavy Duty Track (914 mm/36" MS Trap)
- Guards, End Track Guiding
- Idler Guards
- Master Link
- Idler Seal Guards, Kevlar Design
- Track Roller Frame Debris Guard
- Rollers and Idlers, Lifetime Lubricated
- Sprocket Rim Segments, Replaceable
- Track Adjusters, Gas Spring Recoil,
- Grease Track Adjust
- Guard Group, Track Guide

### OTHER STANDARD EQUIPMENT

- Fenders, Heavy Duty
- Chassis Guarding on Mainframe
- Seal Guard Group
- Crankcase Guard Group
- Fuel Tank Guards
- Dozer Lines Guards
- Black Hood and Dozer Lift Cylinder
- Screen, Grill Door
- CD ROM Parts Book
- Engine Enclosures, Perforated
- Front Tow Hook
- Grade Control Ready
- Guards, Hinged Bottom
- Hood, Perforated
- Hydraulics, Load Sensing, Dozer Lift and Tilt
- Oil Cooler, Hydraulic
- S·O·S<sup>SM</sup> Sampling Ports
- Radiator Doors, Louvered, Double Hinged
- Vandalism Protection for Fluid Compartments and Battery Box
- Insulated Clean Emissions Module

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## Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

- AccuGrade Ready Installation
- Arrangement
- Back of Blade, Black
- Cold Weather Attachments
- Engine Coolant Heater, 240V
- Fast Fuel
- Heavy Duty Final Drive Flange Guards
- Rear Screen
- Heated Seat
- Lights
  - Basic (6) Lights
  - Premium (10) HID and Halogen Lights
- Power Train Oil Change System
- Rear Vision Camera
- Rear Striker Box or Multi-shank Ripper with Striker Bar and Ripper Hydraulics
- Sound Suppression (Europe)
- Track Guide Guards
- Landfill Bulldozer Blades – with Trash Racks
  - LGP S
  - LGP U
- Heavy Duty Track (660 mm/26" ES Trap)
- Heavy Duty Track (914 mm/36" ES Trap)

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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