# **D7E**Track-Type Tractor





Engine	
Engine Model	
01 1 1 5	

 Global Emissions
 U.S. Tier 4 Interim/EU Stage IIIB

 Net Power – ISO 9249
 175 kW
 235 hp

 Net Power – ISO 9249 (DIN)
 238 hp

 Net Power – SAE J1349
 175 kW
 235 hp

Cat<sup>®</sup> C9.3 ACERT™

**Drive Train** 

Type Electric Drive

### Weights

Operating Weight – STD SU	26 055 kg	57,441 lb	
Operating Weight – LGP S	28 525 kg	62,886 lb	
Shipping Weight – STD	21 955 kg	48,402 lb	
Shipping Weight – LGP	24 335 kg	53,649 lb	

#### **D7E Features**

#### **Electric Drive Powertrain**

The revolutionary electric drive system delivers excellent dozing efficiency and performance while consuming considerably less fuel and fewer parts to reduce lifetime owning and operating costs.

### **Operator Station**

Center post cab design offers more space, all-around visibility and reduced noise levels.

### **ACERT™** Engine Technology

Cat C9.3 engine with ACERT™ Technology powers an electric generator that efficiently converts mechanical energy into AC electrical current. The engine is integrated with a Cat aftertreatment solution to meet U.S. EPA Tier 4 Interim/ EU Stage IIIB emissions standards.

### **Grade Control Ready**

Deeply integrated wiring is installed at the factory to make it simple to add a Cat AccuGrade™ system for improved accuracy and increased productivity.

### **Serviceability**

Tilt cab provides easy access to drive system components, hydraulic pumps and lines. Grouped service points and large access doors facilitate easy daily maintenance.

#### **Sustainability**

Designed to do more work while consuming fewer resources.

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The Cat® D7E was designed to meet growing demand for powerful yet highly maneuverable track-type tractors. By adapting electric drive technology to the unique requirements of dozer applications, Caterpillar has developed an all-new class of tractor that delivers the best possible balance of heavy-dozing and fine-grading performance.

The innovative diesel-electric powertrain is also designed to burn considerably less fuel and consume fewer fluids and parts for reduced owning and operating costs. Improved productivity and efficiency means getting more work done while using fewer resources. The D7E meets U.S. Tier 4 Interim/EU Stage IIIB emission standards.

# **Powertrain**

## First-of-its-kind Electric Drive delivers power and efficiency

The electric generator, power inverter and propulsion module in the electric drive system replace traditional mechanical components such as a torque converter and transmission.

The Cat® C9.3 engine with ACERT™ Technology turns a powerful electric generator that efficiently converts mechanical energy into AC electrical current. Electrical current from the generator flows through specially armored cables and military grade connectors to a solid-state power inverter. Advanced electronics send AC current to the propulsion module to control the motors and provides DC current for the accessory systems.

The propulsion module delivers well-modulated torque via axles to the final drives. Consisting of state-of-the-art AC electric motors – and connected to the D7E updated differential steering system – the propulsion module has no moving electrical contacts and few moving mechanical parts.

All electrical components are fully sealed to safely operate in a wide range of dozing conditions. Liquid cooling ensures that the electric drive components deliver peak performance in extreme temperature conditions.

The D7E electric drive system is highly efficient at delivering engine power to the ground. Infinitely variable speed control, means there are no gears to shift. Operators can concentrate on the task and the job site, rather than on shifting gears and managing engine speed. Training is simplified as well.

A proven differential steering system combines with electric drive to make the D7E the only system that can perform locked-track pivot turns for better maneuverability. A dedicated D8-size steering pump delivers improved performance.

#### **Benefits**

- Fuel efficiency: 10 30 percent less fuel burned per hour.
- Reduced owning and operating costs: Fewer moving parts, longer drive train component life, reduced lifetime service and maintenance.
- Resourceful: Designed to use less fuel and fluids, and fewer replacement parts.
- Increased efficiency: Lower fuel usage per cubic yard of material moved.
- Increased productivity: More material moved per hour.
- Versatility: Power, smooth operation and maneuverability for a wide variety of applications.



# **Engine** ACERT™ Technology



The D7E features a Cat C9.3 ACERT engine and a Cat Clean Emissions Module aftertreatment to deliver the performance and efficiency that customers demand, while meeting U.S. EPA Tier 4 Interim/EU Stage IIIB emissions standards.

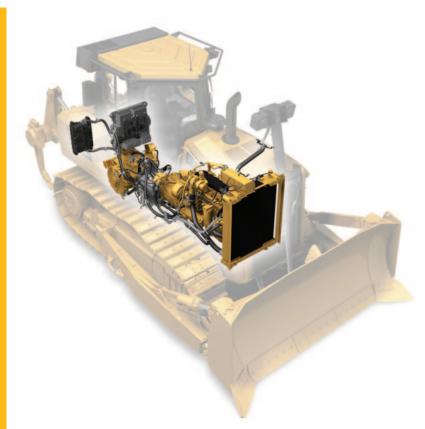
The efficient drivetrain allows the engine to operate in a tighter rpm range, 1,500 – 1,800 rpm, which helps extend engine life and improve fuel economy. The increased drivetrain efficiency also allows the machine to achieve greater performance at lower horsepower than previous models, adding even more to the D7E overall benefits.

### **Features**

- Serviceability: Electric priming pump and easier engine access make service easier.
- Leak Protection: Components are sealed, preventing leaks and protecting fluids from contamination.

# **Cooling System**Efficient and easy to service

The D7E cooling system uses a three-part radiator built with rugged, highly efficient aluminum bar cores for charged air, jacket water, and the separate circuit. Although the jacket water and separate circuit coolant operate at different temperatures, the radiator appears and acts as one integrated unit. Airflow is managed by a hydraulic variable speed demand fan, reducing power requirements and fuel consumption. A molded shroud ensures efficient air flow through the radiator and the fan utilizes lightweight, durable blades for high efficiency and quiet operation. A larger gap between fins reduces plugging, and the single-plane design allows for easier cleaning and service.







# **Emissions Technology**

Reliable, integrated solutions

### **Cat NOx Reduction System**

The Cat NOx Reduction System captures and cools a small quantity of exhaust gas, then routes it into the combustion chamber where it drives down combustion temperatures and reduces NOx emissions.

### **Aftertreatment Technologies**

To meet Tier 4 Interim/Stage IIIB emissions standards and beyond, Cat aftertreatment components have been designed to match application needs. System components include a **Diesel Oxidation Catalyst** (DOC), which uses a chemical process to convert regulated emissions in the exhaust system, and a **Diesel Particulate Filter** (DPF) that traps particulate matter that is carried into the exhaust stream.

The DOC, DPF and Cat Regeneration System are contained in a Caterpillar designed Clean Emissions Module (CEM) that protects the components, minimizes the aftertreatment footprint and simplifies maintenance. For high debris applications that require thermal shields on exhaust components, an optional insulated CEM is available for the D7E.

### **Cat Regeneration System**

The Cat Regeneration System is designed to work transparently, without any interaction needed from the operator. Under most operating conditions, engine exhaust is hot enough to oxidize soot through passive regeneration. If supplemental regeneration is needed, the Cat Regeneration System elevates exhaust gas temperatures to burn off soot in the Diesel Particulate Filter (DPF). This is a process that happens automatically, but the operator can initiate the cycle when convenient or interrupt regeneration as needed. A soot level monitor and regeneration indicator lights are integrated into the D7E dash display.

**Key Off Regeneration** – Optional Key Off Regeneration allows the operator to initiate a regeneration cycle after the key has been turned off. If a cycle takes place, the engine will complete regeneration, followed by a cool down period prior to shutting down.

**Delayed Engine Shutdown** – Delayed Engine Shutdown feature is available to allow the machine to cool immediately after a heavy work load or regeneration cycle.

**Engine Idle Shutdown Timer** – An optional Engine Idle Shutdown timer will sound a warning and shut down the engine after the machine has been idling for a pre-set period of time.

# **Operator Station**

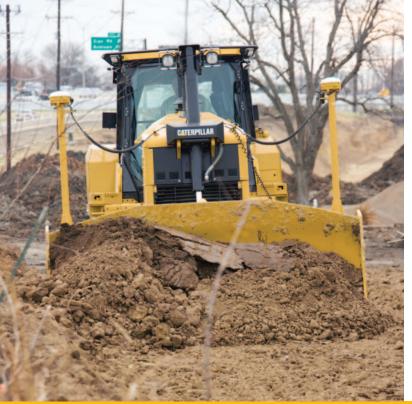
Unprecedented all-around visibility and comfort





The all new D7E cab is designed to maximize operator efficiency. From the operator's seat, the single center post aligns perfectly with the air intake, exhaust and lift cylinder, greatly enhancing forward visibility. The angled door provides more side glass area, enhancing sightlines to the blade and all around the job site. That helps operators work more confidently and productively all shift long and enhances job site safety.

- The cab offers more interior space, as well as wider, swing out doors for easier cab access.
- Ergonomic controls are fully adjustable and designed for low-effort comfort. Switches and controls for various systems are located within easy reach of the operator.
- A new standard Eco Reverse mode works during the reverse travel direction of the dozing cycle and during idle time to save even more fuel.
- Interior noise levels are reduced to a quiet 75 dB(A) (ISO 6396).
- A single-unit heating, ventilation and air conditioning (HVAC) system is self contained and powered by electrical current from the accessory power converter. It has no belts, needs no long refrigerant lines, and maintains maximum cooling efficiency even when the machine goes to idle.
- An integrated display screen provides a range of machine status information, plus safety, service and maintenance-related alerts. Built-in connections and mounts make for easy installation of a grade control system display.
- A speed recall feature allows operators to pre-set the desired forward and reverse travel speed, and then resume that speed simply by pressing a button.







# **Integrated Technologies**

Solutions to make work easier and more efficient

### **Grade Control Ready**

The D7E comes standard from the factory Grade Control Ready (GCR) including deeply integrated harnesses incorporated into the machine during assembly. This integration allows for an easy dealer installed AccuGrade™ Ready Option (ARO) and AccuGrade machine control and guidance system later as business requirements change, or for improved resale value. The machine dashboard also includes space to install an AccuGrade display.

### **AccuGrade Ready Option**

The D7E can be ordered from the factory with optional brackets and hardware installed, making the tractor ready to plug in the dealer installed AccuGrade machine control and guidance system The factory installed ARO simplifies the dealer installation of the AccuGrade components and integration into the machine helps protect components to enhance system robustness.

### **AccuGrade**

AccuGrade is a dealer installed machine control and guidance system which enables operators to cut and fill to grade with increased accuracy, minimizing the need for traditional stakes and grade checkers.

AccuGrade uses advanced Laser, Global Navigation Satellite System (GNSS) and/or Universal Tracking Station (UTS) technology, machine-mounted components and off-board hardware. This state-of-the-art machine control system provides precise elevation information on an in-cab display to achieve accurate blade positioning. By displaying real-time cut/fill information in the cab, operators can improve their efficiency and get to grade faster with fewer passes than ever before. The AccuGrade System significantly improves the productivity and accuracy of grading equipment – by as much as 50 percent over conventional methods.

### **Cat Product Link**

Remote monitoring with Product Link improves overall fleet-management effectiveness. Product Link is deeply integrated into machine systems. Events and diagnostic codes, as well as hours, fuel, idle time and other detailed information are transmitted to a secure web based application, VisionLink<sup>TM</sup>. VisionLink includes powerful tools to convey information to users and dealers, including mapping, working and idle time, fuel level and more.







# **Work Tools**

Designed for performance and versatility

#### Dozer Blades

The D7E features a robust, single lift cylinder design. The single cylinder delivers the same power as a dual-cylinder system, but with fewer than half the components. Blade stability is excellent, supported by L-shaped push arms.

Dozer blade capacity is the same as previous models, although the D7E blade enhances durability with thicker plating.

### **Blade Options**

- Universal Blade
- Semi-Universal Blade
- · Straight Blade
- Angle Blade

#### **Rear Attachments**

Distributed hydraulics and commonality among D7E rear Work Tools help maximize productivity and efficiency. A well-balanced machine design means counterweights are not needed when a rear work tool is not attached.

- **Ripper** The ripper on the D7E is placed closer to the machine for improved balance. The Ripper Auto Stow function allows the operator to automatically raise and position the ripper for the next pass. Cast-in ripper mounts mean the machine comes ready-to-pin from the factory, so a ripper can be mounted quickly and easily.
- **Winch** The hydraulically driven winch for the D7E features positive load control with variable speed, a dual braking system, a single lever control and a standard three roller fairlead.
- **Drawbar** The drawbar for the D7E is suited for a variety of applications, including disks, compactors, chopper wheels, pull-type scrapers and retrieving other equipment.

# **Serviceability and Customer Support**

### When uptime counts

### **Designed for Serviceability**

The D7E redefines serviceability. With easy access to service points and longer service intervals, the D7E can significantly reduce total owning and operating costs.

A tilt cab allows easy access to modular major components, such as generator, propulsion module, power electronics and hydraulics. The heating, ventilation and air conditioning (HVAC) system is self contained for improved performance, increased service intervals and ease of serviceability.

Service points are grouped on the left side of the machine for quick and easy routine maintenance. Ground-level sight gauges provide quick and easy inspection of fluid levels. Modular final drives can be easily accessed and serviced.

### **Ground Level Service Center**

The new ground level service center is accessible on the left hand fender without setting foot on the machine, giving easy access to the battery disconnect, remote engine shutdown and optional access light switches. It also houses an LED warning indicator showing that the powertrain and accessory systems are energized. When the systems are de-energized and safe for maintenance, the indicator turns off.

### **Renowned Cat Dealer Support**

From helping you choose the right machine to knowledgeable ongoing support, Cat dealers provide the best in sales and service. Manage costs with preventive maintenance programs like Custom Track Service, Scheduled Oil Sampling (S·O·S<sup>SM</sup>) analysis, and guaranteed maintenance contracts. Stay productive with best-in-class parts availability. Cat dealers can even help you with operator training to help you boost profits.

And when it's time for machine replacement, your Cat dealer can help you save even more with Genuine Cat Remanufactured parts. Receive the same warranty and reliability as new products at cost savings of 40 to 70 percent for powertrain and hydraulic components.





# Undercarriage

## Engineered for performance



The D7E features an advanced low drive undercarriage design for greater machine versatility in a wider range of applications. Enhanced visibility, especially to the sides, is only one of the many benefits of this highly efficient undercarriage system.

D10-size sprocket bearings offer added durability. Shock loads are directed through the roller frame to reduce wear and tear on the machine – and on the operator. The low drive undercarriage configuration also allows the cab to be tilted for convenient service access to the drivetrain system.

The Heavy Duty undercarriage system components are designed for extended wear life in abrasive conditions and rocky or uneven terrain. The Standard arrangement is designed for versatility and works in a variety of soil conditions. The LGP configuration increases track contact area and reduces ground pressure for improved stability and excellent flotation in soft ground conditions.

# Sustainability Resourceful in every way

The D7E is designed to maximize efficiency and productivity while conserving natural resources.

- Uses 10 30 percent less fuel per hour than previous models. Less fuel burned means reduced emissions.
- The D7E earned a 2009 Clean Air Excellence Award from the U.S. Environmental Protection Agency.
- More efficient 25 percent more material moved per liter/gallon of fuel.
- Fewer parts and longer component life, less fuel and fluids, means less to replace and less to dispose of.
- Major structures and components are built to be rebuilt, reducing waste and replacement costs.



## **D7E Track-Type Tractor Specifications**

Engine		
Engine Model	Cat® C9.3	ACERT™
Global Emissions	U.S. Tier 4 EU Stage	
Gross Power – SAE J1995	193 kW	259 hp
Gross Power – ISO 14396	191 kW	256 hp
Gross Power – ISO 14396 (DIN)		260 hp
Net Power – ISO 9249	175 kW	235 hp
Net Power – ISO 9249 (DIN)		238 hp
Net Power – SAE J1349	175 kW	235 hp
Bore	115 mm	4.5 in
Stroke	149 mm	5.9 in
Displacement	9.3 L	567 in <sup>3</sup>

- Ratings at 1,700 rpm.
- Net power advertised is the power available at the flywheel when engine is equipped with fan, air cleaner, and muffler.
- No derating required up to 3200 m (10,500 ft) altitude, beyond 3200 m (10,500 ft) automatic derating occurs.

Service	Refill	<b>Capacities</b>
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	•	
Fuel Tank	409 L	108 gal
Cooling System	87 L	22.5 gal
Engine Crankcase	30 L	8 gal
Powertrain	60 L	16 gal
Final Drives (each)	28 L	7 gal
Final Drive (LGP each)	34 L	9 gal
Pivot Shaft Compartment	7 L	1.8 gal
Hydraulic Tank	76 L	20 gal

Weights		
Shipping Weight	21 955 kg	48,402 lb
Operating Weight – STD SU	26 055 kg	57,441 lb
Operating Weight – LGP S	28 525 kg	62,886 lb
Shipping Weight – LGP	24 335 kg	53,649 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, ROPS/FOPS cab, drawbar and operator.

<b>Hydraulic Cont</b>	trols – Pur	np
Pump Output – Steering	312 L/min	82.4 gal/min
Pump Output – Implement	200 L/min	52.8 gal/min
Lift Cylinder Flow	190 L/min	42 gal/min
Ripper Cylinder Flow	190 L/min	42 gal/min
Pump Type	Piston, Var Displaceme	
Tilt Cylinder Flow  – Head End Flow	93 L/min	24.6 gal/min
Tilt Cylinder Flow	66 I /min	17.4 gol/min

Tilt Cylinder Flow 66 L/min 17.4 gal/min – Rod End Flow

### Hydraulic Controls – Main Relief Valve

Pressure Setting – 27 600 kPa 4,000 psi Steering

- Rated Implement Pump Speed 2,006 rpm.
- Rated Steering Pump Speed 2,516 rpm.

# Hydraulic Controls – Maximum Operating Pressure

Bulldozer	27 600 kPa 4,000 psi
Tilt Cylinder	27 600 kPa 4,000 psi
Ripper (Lift)	27 600 kPa 4,000 psi
Ripper (Pitch)	27 600 kPa 4,000 psi
Steering	41 000 kPa 5,950 psi

### Ripper

iiihhei		
Type	Multi-Shan	ık
Number of Pockets	3	
Overall Beam Width	2088 mm	82.2 in
Beam Cross Section	355 mm	14.0 in
Maximum Clearance Raised (under tip, pinned in bottom hole)	588 mm	23.1 in
Maximum Penetration	650 mm	25.6 in
Maximum Penetration Force	87.4 kN	19,639 lb
Pryout Force	234.4 kN	52,695 lb
Weight – with One Shank	1650 kg	3,572 lb
Each Additional Shank	150 kg	330 lb
Ramp Angle	26 Degrees	
Pocket Spacing	900 mm	35.4 in
Shank Gauge	1800 mm	70.9 in
Shank Section	72 mm × 22 2.8 in × 9.0	

### **D7E Track-Type Tractor Specifications**

Winch		
Winch Model	PA90	
Weight*	1520 kg	3,350 lb
Oil Capacity	12 L	3.2 gal
Winch and Bracket	1115 mm	93.9 in
Length		
Winch Case Length	1110 mm	43.7 in
Winch Case Width	826 mm	32.5 in
Increased Tractor	1032 mm	93.9 in
Length – STD		
Increased Tractor	1032 mm	93.9 in
Length – LGP		
Drum Diameter	318 mm	12.5 in
Drum Width	226 mm	8.9 in
Flange Diameter	610 mm	24 in
Drum Capacity –	62 m	203 ft
24 mm (1 in)		
Drum Capacity -	56 m	185 ft
29 mm (1.13 in)		
Ferrule Size	60 mm × 6	
(O.D. × Length)	$2.38 \text{ in} \times 2$	.56 in
Winch Drive	Hydraulic	
		Hydraulic
Winch Drive Control Installed Weight	Hydraulic Electronic/ 1520 kg	Hydraulic 3,350 lb
Winch Drive Control	Hydraulic Electronic/	Hydraulic
Winch Drive Control Installed Weight	Hydraulic Electronic/ 1520 kg	Hydraulic 3,350 lb
Winch Drive Control Installed Weight Winch Length	Hydraulic Electronic/ 1520 kg 1115 mm	Hydraulic 3,350 lb 43.9 in
Winch Drive Control Installed Weight Winch Length Overall Width	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm	Hydraulic 3,350 lb 43.9 in 43 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended)	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended)	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in 90,000 lb
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull Maximum Bare	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull Maximum Bare Drum Line Speed	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2 400.3 kN	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in 90,000 lb 70 ft/min
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull Maximum Bare Drum Line Speed Maximum Full	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in 90,000 lb
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull Maximum Bare Drum Line Speed Maximum Full Drum Line Pull	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2 400.3 kN 21 m/min 253.5 kN	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in 90,000 lb 70 ft/min 57,000 lb
Winch Drive Control Installed Weight Winch Length Overall Width Throat Clearance Rope Diameter (recommended) Cable Ferrule Size (O.D. × Length) Maximum Bare Drum Line Pull Maximum Bare Drum Line Speed Maximum Full	Hydraulic Electronic/ 1520 kg 1115 mm 1090 mm 218 mm 25 mm 60 mm × 6 2.38 in × 2 400.3 kN	Hydraulic 3,350 lb 43.9 in 43 in 8.6 in 1 in 5 mm .56 in 90,000 lb 70 ft/min

<sup>\*</sup> Basic winch weight, mounting arrangement, hydraulic and electrical system weight.

Standards	
ROPS/FOPS	SAE 1040, ISO 3471-1994/ ISO 3449-2005, SAE 5231
Brakes	ISO 10265 2008
Cab	ANSI/SAE J1166 OCT 98

- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT 98 is 77 dB(A), and as measured by ISO 6396: 2008 is 75 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
- Hearing protection may be needed when operating with an open cab (when not properly maintained or doors/windows open) for extended periods and noisy environment.
- The exterior sound pressure level for the standard machine measured at a distance of 15 meters according to the test procedures specified in SAE J88 APR 95, mid-gear-moving operation, is 80 dB(A).

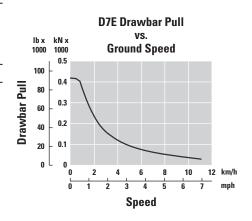
### **Drive Train** Туре Electric Drive AC Compressor 320 volts Nominal Input Voltage AC Compressor 12 amps Maximum Input Current Electric Water Pump 320 volts System Nominal Input Voltage Electric Water Pump 5 amps System Nominal Input Current AC Generator and 480 volts Propulsion Module

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

Voltage

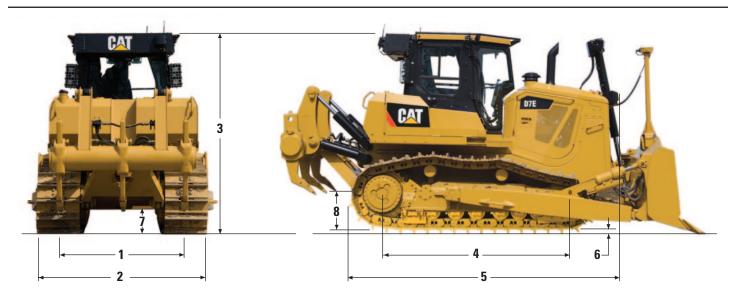
• Measured with water pump operating speed of 4,400 rpm. Measurement is 1 amp with the water pump operating speed of 2,100 rpm.

### **Drawbar Pull**



### **Dimensions**

### All dimensions are approximate



	STD		LGP		
1 Track Gauge	1981 mm	78 in	2286 mm	90 in	
2 Width of Tractor over Trunnions	2880 mm	113 in	3423 mm	135 in	
Width of Tractor without Trunnions (std. shoes)	2591 mm	102 in	3200 mm	126 in	
3 Machine Height from Tip of Grouser					
Top of Stack	3365 mm	132 in	3365 mm	132 in	
Top of Standard Cab	3392 mm	134 in	3392 mm	134 in	
From Ground Face of Shoe	3322 mm	131 in	3322 mm	131 in	
4 Length of Track on Ground	3016 mm	119 in	3450 mm	136 in	
5 Length of Basic Tractor	4608 mm	181 in	4608 mm	181 in	
With the following attachments add to basic tractor length:					
Ripper (with tip at ground line)	1391 mm	55 in	N/A		
Ripper (with tip fully raised)	1222 mm	48 in	N/A		
Winch	1032 mm	41 in	1032 mm	41 in	
Drawbar	270 mm	10.6 in	270 mm	10.6 in	
S Blade	977 mm	38 in	N/A		
SU Blade	1187 mm	47 in	N/A		
U Blade	1425 mm	56 in	N/A		
A Blade	1230 mm	48 in	1230 mm	48 in	
6 Height of Grouser	70 mm	2.75 in	70 mm	2.75 in	
7 Ground Clearance	472 mm	18.6 in	472 mm	18.6 in	
Ground Contact Area (std. shoes)	3.68 m <sup>2</sup>	5,698 in <sup>2</sup>	6.31 m <sup>2</sup>	9,792 in <sup>2</sup>	
Number of Shoes per Side	4	40		44	
Standard Shoe Width and Type	610 mm	24 in	915 mm	36 in	
	M	MS		MS	
Ground Pressure	69.5 kPa	10.1 psi	44.3 kPa	6.4 psi	
Pitch	215.9 mm	8.5 in	215.9 mm	8.5 in	
Track Rollers/Side	7	7		8	
Number of Carrier Rollers	2	2		2	
8 Drawbar Height (grouser tip to center of clevis)	719 mm	28 in	719 mm	28 in	

## **D7E Track-Type Tractor Specifications**

### **Bulldozer Specifications**

Blade						7A	
		<b>7S</b>	7 <b>S</b> U	7U	Straight	Angled 25°	7S LGP
Blade Capacity (SAE J1265)	m³	5.16	6.86	8.34	5.15	_	5.89
	$yd^3$	6.75	8.98	10.91	6.74	_	7.7
Width (over end bits)	mm	3904	3713	3988	4503	4120	4545
	ft	12.81	12.18	13.08	14.77	13.52	14.91
Height	mm	1363	1524	1553	1373	1373	1343
	ft	4.5	5	5.1	4.5	4.5	4.4
Digging Depth	mm	586	586	586	711	711	644
	in	23.1	23.1	23.1	28	28	25.4
Ground Clearance	mm	1108	1108	1108	1120	1120	1264
	in	43.6	43.6	43.6	44.1	44.1	49.8
Maximum Tilt	mm	1045	987	1085	695	695	785
	in	41.1	38.9	42.7	27.4	27.4	30.9
Weight*	kg	3504	3832	3806	3790	3790	3970
	lb	7,709	8,431	8,373	8,330	8,330	8,734

<sup>\*</sup> Weight includes cylinder mounting, lift cylinder and lines, blade, push arms, trunnions, and cylinder lines (Tilt).

### Undercarriage

Type	Heavy Duty Undercarriage					
Configuration	ST	ΓD	LGP			
Number of Rollers (each side)	•	7	8			
Number of Shoes (each side)	4	40 44		4		
Pitch	216 mm	8.5 in	216 mm	8.5 in		
Shoe Width	610 mm	24 in	915 mm	36 in		
Grouser Height (MS)	70 mm	2.75 in	70 mm	2.75 in		
Length of Track on Ground (Heavy Duty)	3016 mm	119 in	3450 mm	136 in		
Track Gauge	1981 mm	78 in	2286 mm	90 in		
Ground Contact Area (Heavy Duty)	3.68 m <sup>2</sup>	5,698 in <sup>2</sup>	6.31 m <sup>2</sup>	9,792 in <sup>2</sup>		
Ground Pressure (Heavy Duty)	69.5 kPa	10.1 psi	44.3 kPa	6.4 psi		
Ground Clearance	472 mm	18.6 in	472 mm	18.6 in		

### **D7E 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

Air Suspension Seat 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 Presence

Mirror, Rearview

Modular HVAC, Cab Mounted

Radio Ready, 12V

Seat Belt, Retractable 3" (76 mm)

Speed Recall Button Throttle Dial, Electronic Tilt Cab and Tilt Cab Jack Travel Control Pedal Wipers, Intermittent

**POWERTRAIN** 

Aftercooler

Air Cleaner, precleaner with strata tube

dust ejector

C9.3 ACERT Engine

Continuously Variable Speed Transmission

Coolant, Extended Life

Electronic Air Cleaner Service Indicator

Fan, Hydraulically Driven Demand with

High Ambient Capability
Final Drives, Double Reduction

Fuel Priming Pump, Electronic Auto Prime

DPF aftertreatment module Parking Brake, Electronic

Prescreener Starting Aid, Ether Turbocharger Water Separator UNDERCARRIAGE

Heavy Duty Track (610 mm/24" MS) Heavy Duty Track (914 mm/36" MS) (LGP)

Guards, End Track Guiding

Idler Guards Master Link

Rollers and Idlers, Lifetime Lubricated Sprocket Rim Segments, Replaceable Track Adjusters, Gas Spring Recoil,

Grease Track Adjust

OTHER STANDARD EQUIPMENT

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

## **D7E Optional Equipment**

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

610 mm, 660 mm, 914 mm (24", 26", 36")

Track Pads

AccuGrade Ready Installation Arrangement

Black Hood and Back of Blade Cold Weather Attachments

**Dual Tilt** 

Engine Coolant Heater, 240 V

Enhanced Clean Cab

Fast Fuel

Final Drive Clamshell Guards

Final Drive Flange Protection

Front and Rear Screens

Heated Seat

Heavy Duty Grill Door, Hinged

Lights

Basic (6) Lights

Premium (10) HID Lights

Multi-shank Ripper and Ripper Hydraulics

Powertrain Oil Change System

Rear Vision Camera Reversible Fan

Sound Suppression (Europe)

SU (Semi-universal), U (Universal), (S) Straight, and Angle Blades

Sweeps (without canopy)
Track Guide Guards

Turbine Precleaner

Waste (Landfill) Arrangements Winch Arrangement (PACCAR PA90)

Winch Hydraulics
Woodchip Arrangement

### **D7E Track-Type Tractor**

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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