

D9

Large Bulldozer



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Applications	
Airfield Repair	Road Construction
Landing Zones	Security
Route Clearance	Obstacle Reduction
Mobility	Counter-mobility

Unrivaled dependability and performance for combat engineers.

Supplies, support and security are needed in remote and hazardous environments. The D9 is designed for today's complex engineering operations and supports the future by being integration-ready.

Modifications like electro-hydraulic controls deliver the efficiency and safety needed to support maneuverability in even the biggest and most complex ground operations. Designed and built to be unrivaled in power and reliability, the D9 navigates the harshest terrain, moving more and helping to get the job done more efficiently.

Electro-Hydraulic Controls for the Future of Engineering Operations

- Improves operator productivity with AutoCarry™ semi-autonomous blade control
- Requires less training, so operators at any experience level can effectively operate the equipment
- Built with drive-by-wire technology for easy control and service

For missions requiring as much protection as performance.

Reduce risk for operators with task-focused modifications like the Cat® remote control. Whether moving rubble to enable mobility or clearing explosive hazards, electro-hydraulic controls and integration-ready upgrades put more distance between engineers and threats, allowing operators to effectively utilize equipment while staying out of harm's way.

Military Modifications and Technology Solutions

Cat® Remote Control

- Portable operator console
- Range 1,312.34 ft/400 m LOS
- Frequency 900 MHz or 2.4 GHz
- Remote control indicator lights up and horn sounds during training
- Conceal mode for tactical operations



Easy-to-use instrument panel.

Blackout lights.

Convenient service access.

Military Modifications

- Semi-Universal (SU) blade with dual tilt capability
- Single-shank ripper
- HET trailer transportable
- Removable cab and ROPS for transport (unarmored, commercial cab only)
- NATO start receptacle
- Elevated sprocket undercarriage
- Fresh water fordable to 30 in/762 mm depth (standard)
- Rifle bracket
- CARC or special paint
- NATO-STANAG-4019 towing lugs
- Keyless engine start switch
- Fire extinguisher
- Military data plates
- Blackout lights
- Emergency retrieval features (electric park brake release for recovery, implement diversion feature, mechanical locking of blade and ripper in stowed position)
- Push block on back of ripper
- 24V power socket
- 280AMP alternator
- Armored 2-person CPK (optional)
- Machine Armor Protection (MAP) (optional)
- Remote control (optional)

Consult Caterpillar Defense for specific details on military modifications.



D9 fully armored with Crew Protection Kit (CPK) and Machine Armor Protection (MAP).

Armor Protection Solutions

The Armored D9 Dozer provides unsurpassed power and operational readiness – without sacrificing machine mobility – through its Machine Armor Protection (MAP) offerings.

Operators can depend on 360° protection inside the cab, an emergency egress hatch for quick exiting and swift rescues, and transparent armor for a wide view of the machine and surrounding areas. Count on the D9 to protect against unexpected ballistic threats and explosive hazards in the most war-torn, complex environments around the world.



Emergency egress hatch.

Armor Packages

- 2-Person Crew Protection Kit with Machine Armor Protection
- STANAG 4569 Annex A Level 3, Annex B Level 3A and 3B Machine Armor Protection
- STANAG 4569 Annex A Level 3+, Annex B Level 4A and 4B Crew Protection



Rear egress ladder.

Engineering Capabilities

Constructing obstacles, mitigating explosive threats or assuring the mobility of combat formations—engineers rely on the full range of work tool attachments for long-lasting strength and durability. From inside the cab or utilizing remote control capabilities, operators remain in complete control of the task.

Work Tool Attachments

Semi-Universal Blade
(with dual tilt capability)

Single-Shank Ripper



Support and Serviceability

Easy to maintain. Ready for work.

Proper maintenance of your dozer will keep it running at peak performance with minimal downtime. The D9 is engineered with easy-to-access maintenance points and a full range of systems to ensure operators and technicians are able to efficiently diagnose and maintain the machine.

<p>Advanced Modular Cooling System (AMOCS)</p> <p>Reduce repair costs and downtime with the AMOCS individual core modules. This system allows the removal of a single core without removing the entire radiator.</p>	<p>Monitoring Systems</p> <p>Maintain dozer readiness. Minimize the maintenance burden. On-board diagnostics allow operators to monitor engine and machine systems using electronic control modules (ECMs). The Cat Electronic Technician (ET) software allows technicians to view a complete range of equipment parameters and data logs.</p>
<p>Elevated Final Drive</p> <p>Get longer final drive and seal life, while ensuring quick and easy service. This exclusive modular design isolates the final drives from implement and ground-induced impact, abrasive materials and moisture.</p>	<p>Cooling Package</p> <p>Cores and fan are fully accessible for easy cleaning and maintenance.</p>



Additional Dozer Service Conveniences

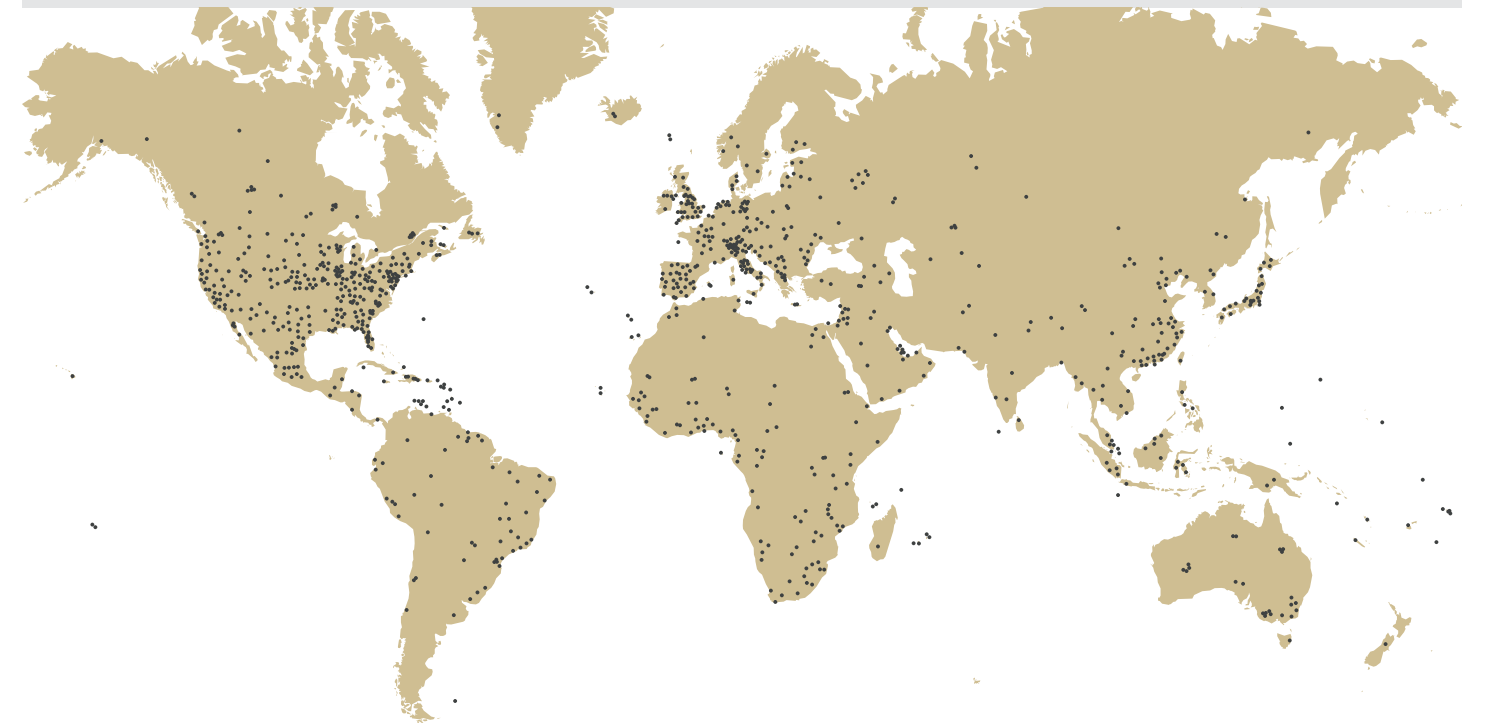
- Electric service center
- Easily visible sight gauges
- Left side engine grouped maintenance points
- Easy access to engine compartment
- Ecology drains for simple and clean fluid drainage
- Maintenance-free batteries
- Modular major components

Worldwide Service Capabilities

Cat dealer field service technicians have the experience and tools necessary to service your machine on-site. Field service trucks are fully loaded with state-of-the-art tools and diagnostic equipment, as well as specifications and schematics for every Cat machine. Technical experts at the dealership and the Caterpillar team are available to provide assistance to field service technicians. When on-site repair isn't enough, Cat dealerships are fully-equipped to service your bulldozer quickly.

Dealer Support

The Caterpillar global network of dealers is the best in the world at providing support to keep your bulldozer up and running. With over 99% of customer orders shipped the same day, Cat dealers are partners in support.



Operating Specifications

Engine	
MODEL	Cat® C18 ACERT
Bore (in/mm)	5.7 / 145
Stroke (in/mm)	7.2 / 183
Displacement (in³/L)	1,106 / 18.1
Engine Power	
Gross SAE J1995* (hp/kW)	448 / 334
ISO 14396 (hp/kW)	441 / 329
Net SAE J1349/ISO 9249 (hp/kW)	410 / 306

*Excludes all fan losses

Engine ratings apply at 1,833 RPM

Net power advertised is the power available at the flywheel when the engine is equipped with fan at max speed, air cleaner, muffler and alternator

No derating required up to 7,500 ft/2,286 m altitude. High altitude attachment is available for greater than 7,500 ft/2,286 m

Transmission	
Forward - 1st (mph/kph)	2.4 / 3.9
- 2nd (mph/kph)	4.2 / 6.8
- 3rd (mph/kph)	7.3 / 11.7
Reverse - 1st (mph/kph)	2.9 / 4.7
- 2nd (mph/kph)	5.2 / 8.4
- 3rd (mph/kph)	8.9 / 14.3
Forward – Drawbar Pull - 1st (lbf/N)	161,000 / 716 500
- 2nd (lbf/N)	90,000 / 400 500
- 3rd (lbf/N)	50,000 / 222 500

Undercarriage	
Shoe Type	Extreme Service
Width of Shoe (in/mm)	24 / 610
Shoes per Side	43
Grouser Height (in/mm)	3.3 / 84
Pitch (in/mm)	9.44 / 240
Ground Clearance (in/mm)	23.5 / 596
Track Gauge (in/mm)	88.6 / 2250
Length of Track on Ground (in/mm)	136.6 / 3470
Ground Contact Area (in²/m²)	6,569 / 4.24
Track Rollers per Side	8
Carrier Rollers per Side	1 (optional)

Positive pin retention track

Service Refill Capacities	
Fuel Tank (gal/L)	235 / 889
Cooling System (gal/L)	26.7 / 101
Engine Crankcase* (gal/L)	9 / 34
Power Train (gal/L)	43.3 / 164
Final Drives - each (gal/L)	3.9 / 15
Roller Frames (gal/L)	11.9 / 45
Pivot Shaft Compartment (gal/L)	7.9 / 30
Hydraulic System - Tank Oil only (gal/L)	23.5 / 89

* With oil filters

Hydraulic Controls - Pump	
Pump Type	Piston-type pump geared from flywheel
Pump Output - Steering (gpm/Lpm)	102 / 387
Pump Output - Implement (gpm/Lpm)	60 / 226
Tilt Cylinder Rod End Flow (gpm/Lpm)	37 / 140
Tilt Cylinder Head End Flow (gpm/Lpm)	50 / 188
Bulldozer Relief Valve Setting (psi/kPa)	3,800 / 26 200
Tilt Cylinder Relief Valve Setting (psi/kPa)	2,800 / 19 300
Ripper - Lift Relief Valve Setting (psi/kPa)	3,800 / 26 200
Ripper - Pitch Relief Valve Setting (psi/kPa)	3,800 / 26 200
Steering (psi/kPa)	5,875 / 40 500
Tank Capacity (gal/L)	23.5 / 89

Steering pump output measured at 1,800 rpm and 4,351 psi / 30 00 kPa

Implement pump output measured at 1,800 rpm and 2,900 psi / 20 00 kPa

Electro-hydraulic pilot valve assists operations of ripper and dozer controls
Standard hydraulic systems includes four valves

Complete system consists of pump, tank with filter, oil cooler, valves, lines, linkage and control levers

Weights / Height	
Operating Weight (lb/kg) without Armor	105,539 / 47 872
Operating Weight (lb/kg) (Fully Armored/Fully Assembled)	141,000 / 63 957
Weight (lb/kg) without Blade, Push Arms, Tilt Cylinders	125,300 / 56 835
Shipping Weight (lb/kg) without Armor	78,806 / 35 746
Height (in/mm)	162 / 4097

Operating Weight includes: hydraulic controls, blade tilt cylinder, coolant, lubricants, full fuel tank, ROPS, FOPS cab, SU-Blade, Single-Shank Ripper, 24 in / 610 mm ES shoes, and operator

Shipping Weight includes: base machine chassis with cab, pivot shaft, roller frames, track and ROPS

Bulldozer Blade Specifications	
Type	9SU
Blade Capacity - SAE J1265 (yd³/m³)	17.7 / 13.5
Width - Over End Bits (in/mm)	170 / 4310
Height (in/mm)	76 / 1934
Digging Depth (in/mm)	23.9 / 606
Ground Clearance (in/mm)	56 / 1422
Maximum Tilt (in/mm)	37 / 940
Weight* - without hydraulic controls (lb/kg)	15,130 / 6863
Total Operating Weight** - with Blade and Single-Shank Ripper (lb/kg) without Armor	105,539 / 47 872
Type	9U
Blade Capacity - SAE J1265 (yd³/m³)	21.4 / 16.4
Width - Over End Bits (in/mm)	183 / 4650
Height (in/mm)	76 / 1934
Digging Depth (in/mm)	23.9 / 606
Ground Clearance (in/mm)	56 / 1422
Maximum Tilt (in/mm)	39.9 / 1014
Weight* - without hydraulic controls (lb/kg)	16,288 / 7388
Total Operating Weight** - with Blade and Single-Shank Ripper (lb/kg) without Armor	106,836 / 48 460

* Includes blade installation arrangement, blade tilt cylinder, and blade lift cylinders

** Total Operating Weight includes: hydraulic controls, blade tilt cylinder, coolant, lubricants, full fuel tank, ROPS, FOPS cab, Blade, Single-Shank Ripper, 24 in / 610 mm ES shoes, and operator

Winch Specifications	
Winch Model	PA140VS (Variable Speed)
Weight* (lb/kg)	3,950 / 1790
Oil Capacity (gal/L)	4 / 15
Increased Tractor Length (in/mm)	21.9 / 557
Drum Width (in/mm)	12.6 / 320
Wire Cable Diameter (in/mm)	
Recommended	1.13 / 28
Optional	1.25 / 32
Maximum Drum Capacity (ft/m)	
Recommended Cable Length	257 / 78
Optional Cable Length	204 / 62
Wire Cable Ferrule Size - Outside Diameter (in/mm)	2.4 / 60
Wire Cable Ferrule Size - Length (in/mm)	2.8 / 70

Variable speed, hydraulically driven, dual braking system, three-roller fairlead.

* Weight shown is base winch only. Does not include mounting arrangement, control arrangement, oil, or wire rope. With counterweight: 8,150 lb / 3700 kg

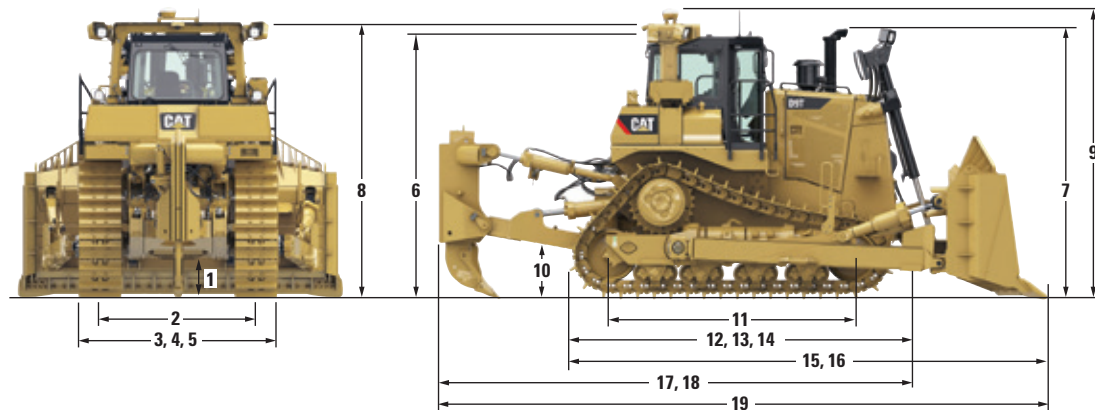
Single-Shank Ripper	
Type	Adjustable Parallelogram
	Standard • Deep
Overall Beam Width	NA
Number of Shank Holes	3
Maximum Clearance Raised - Under Tip, Pinned in Bottom Hole (in/mm)	34.7 / 882 • 32.2 / 817
Maximum Clearance Raised - Standard Tip (in/mm)	48.5 / 1231 • 68 / 1727
Maximum Penetration Force - Shank Vertical (lbf/kN)	35,520 / 158 • 38,667 / 172
Pry Out Force (lbf/kN)	74,637 / 332 • 74,412 / 331
Weight - 1 Shank (lb/kg)	9,464 / 4293 • 9,744 / 4420
Total Operating Weight* - with SU-Blade and Ripper (lb/kg) without Armor	105,539 / 47 872

Note: Single-shank ripping arrangement weight includes pin puller

- ### Standards
- ROPS (Rollover Protective Structure) offered by Caterpillar for the machine meets ROPS criteria SAE J1040 MAY94, ISO 3471:1994.
 - FOPS (Falling Object Protective Structure) meets ISO 3449:2005 Level II.

- ### Cab
- Operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 77 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
 - The exterior sound pressure level for the standard machine measured at a distance of 49 ft / 15 meters according to the test procedures specified in SAE J88 APR 95, mid-gear-moving operation, is 87 dB(A).

Dimensions (with full armor package)



1) Ground Clearance* (in/mm)	23.4 / 595
2) Track Gauge (in/mm)	88.6 / 2250
3) Width without Trunnions [Standard Shoe] (in/mm)	115.4 / 2931
4) Width over Trunnions (in/mm)	130.3 / 3309
5) Width of Basic Tractor [2 Person Cab] (in/mm)	126 / 3200
6) Height - FOPS Cab* (in/mm)	162 / 4097
7) Height - Top of Stack* (in/mm)	154.8 / 3932
8) Height to Top of Cab with Hatch Brackets [removable] (in/mm)	166 / 4198
9) Height to Top of Cab with R/C Lights [removable] (in/mm)	178 / 4505
10) Drawbar Height - Grouser Tip to Center of Clevis* (in/mm)	30 / 763
11) Length of Track on Ground (in/mm)	136.8 / 3474
12) Overall Length - Basic Tractor (in/mm)	193.3 / 4911
13) Length - Basic Tractor with Drawbar (in/mm)	206.4 / 5242
14) Length - Basic Tractor with Winch (in/mm)	218.3 / 5545
15) Length with SU-Blade** (in/mm)	259.9 / 6601
16) Length with U-Blade (in/mm)	274.3 / 6967
17) Length with Single-Shank Ripper (in/mm)	264.0 / 6706
18) Length with Multi-Shank Ripper (in/mm)	265.0 / 6731
19) Overall Length with SU-Blade and SS Ripper (in/mm)	323.6 / 8219

* Includes grouser height for total dimensions on hard surfaces

** Includes drawbar

Standard Equipment

Power Train

- Aftercooler, air-to-air
- Air filter, with precleaner
- Aluminum bar plate radiator, 6 fpi
- C18 with ACERT Technology – 24-volt electric start
- Controlled throttle shifting
- Coolant, extended life
- Engine idle shutdown timer
- Ether starting aid, automatic
- Fast fuel system
- Fuel priming pump, electric
- High speed oil change system, engine and power train
- Muffler
- Parking brake, electronic
- Prescreener
- Separator, water/fuel
- Shift Management
- Three planet, double-reduction planetary final drives
- Torque converter
- Transmission, electronic control (ECPC), (3F/3R speeds)

Electrical

- Alternator, 280-amp
- Alarm, backup
- Batteries, 6 maintenance free 12V
- Converter, 12V, 10 amp and 20 amp
- Diagnostic connector
- Horn, forward warning
- Lights, engine compartment
- Lighting system, 4 Halogen
- Starting receptacle

Safety and Security

- Anchorage points
- Heavy duty steps and handles
- Operator-Not-Present monitor system

Operator Environment

- Advisor-electronic monitoring system
- Air conditioner and heater
- Armrests, adjustable
- Cab, FOPS
- Deactivation switch, hydraulic controls
- Decelerator pedal
- Governor switch, electronic
- Hydraulic system, electronically controlled for bulldozer and ripper control
- Mirror, rearview
- Radio ready, entertainment (non-armored only)
- ROPS, rollbar
- Seat, air-suspension
- Seat belt, retractable 3 in/76 mm
- Wipers, intermittent

Undercarriage

- Equalizer bar end pin grease fittings, remote
- Rollers and idlers, lifetime lubricated
- Sprocket rim segments, replaceable
- Suspension-type undercarriage – Eight-roller tubular track roller frame
- Track adjusters, hydraulic
- Track guides
- Two-piece master links

Other Standard Equipment

- Oil cooler, hydraulic
- Lift and tie downs
- NATO start receptacle
- Fire extinguisher
- CARC paint
- Data plates and stencils
- Lubrication plate
- Shipping data plate
- Mount group, rifle
- Tow lugs
- Keyless start switch
- Remote control capable
- CD ROM parts book
- Ecology drains
- Fluid sampling ports
- Grade control ready
- Ground level service center
- Product link
- Vandalism protection (8 padlocks)
- VIMS 3G

Standard equipment may vary.
Consult Caterpillar Defense for details.

All dimensions are approximate and may vary with configuration.
Specific military service configurations are available upon request.