

PRODUCT SPECIFICATIONS FOR D9

US Metric

Engine Model	Cat® C18
Engine Power - Net SAE J1349/ISO 9249	337 kW
Bore	145 mm
Stroke	183 mm
Displacement	18.1 l
Engine Power - Gross SAE J1995	363 kW
Engine Power - ISO 14396	357 kW
Emissions	U.S. EPA Tier 2 or Tier 3 equivalent
Note (1)	All engine ratings apply at 1,750 rpm.
Note (2)	No derating required up to 4570 m (15,000 ft) altitude.
Engine Model	Cat® C18
Bore	145 mm
Stroke	183 mm
Displacement	18.1 l
Engine Power - Gross SAE J1995	356 kW
Engine Power - ISO 14396	349 kW

Engine Power - Net SAE J1349/ISO 9249 328 kW

Emissions U.S. EPA Tier 4 / EU Stage V

Note (1) All Engine ratings apply at 1,750 rpm.

Note (2) No derating required up to 3658 m (12,000 ft) altitude.

**Fuel Tank
(Splash Fill)** 963 l

**DEF Tank (Tier 4
only)** 36 l

**Fuel Tank (Fast
Fill)** 939 l

Cooling System 81.3 l

**Engine
Crankcase*** 36 l

Powertrain 150 l

**Final Drives
(each)** 15 l

**Roller Frames
(each)** 45 l

Pivot Shaft Oil 30 l

**Hydraulic
System Tank** 89 l

Note *With oil filters.

Note 2 Biodiesel blends up to B20 (20% blend by volume) are acceptable when

blended with 15 ppm (mg/kg) 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-ULSTM or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.

Note 3 All non-road Tier 4 Final diesel engines are required to use only ultra-low sulfur diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less.

Note 4 Diesel Exhaust Fluid (DEF) used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

Operating Weight 49988 kg

Shipping Weight 38271 kg

Note (1) D9 Operation Weight includes hydraulic controls, blade tilt cylinder, coolant, lubricants, full fuel tank, ROPS, FOPS cab, SU Blade, Single-Shank Ripper, 610 mm (24 in) ES shoes and operator.

Note (2) D9 Operation Weight includes base machine chassis with cab, pivot shaft, roller frames, track and ROPS.

Pump Type Piston-type geared to flywheel

Pump Output - Steering 363 l/min

Fan Pump 80 l/min

Tilt Cylinder Flow - Rod End Flow 200 l/min

Tilt Cylinder Flow - Head End Flow 200 l/min

Lift Cylinder Relief Valve 26200 kPa

Setting

Tilt Cylinder Relief Valve Setting 19300 kPa

Ripper - Lift - Relief Valve Setting 26200 kPa

Ripper - Pitch - Relief Valve Setting 26200 kPa

Steering System - Pressure 40500 kPa

Tank Capacity 89 l

Note (1) Steering pump output measured at 1,750 engine rpm and 30 000 kPa (4,350 psi).

Note (2) Implement pump output measured at 1,750 engine rpm and 20 000 kPa (2,900 psi).

Note (3) Fan pump output measured at 1,750 engine rpm and 17 000 kPa (2,470 psi)

Shoe Type Extreme Service

Width - Shoe 610 mm

Shoes/Side 43

Grouser Height 84 mm

Pitch 240 mm

Ground Clearance 459 mm

Track Gauge 2250 mm

Length - Track on Ground	3470 mm
Ground Contact Area	4.23 m ²
Track Rollers/Side	8
Number of Carrier Rollers	1 per side (optional)
Steering Type	Differential
Brake Type	Spring Applied Wet Disc
Brake Diameter	393.7 mm
Brake Count	8
Air Conditioning	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430) the system contains 2.1 kg of refrigerant which has a CO2 equivalent of 3.003 metric tonnes.
ROPS	Rollover Protective Structure (ROPS) meets the following criteria ISO 3471:2008.
FOPS	Falling Object Protective Structure (FOPS) meets the following criteria ISO 3449:2005 LEVEL II.
Sound	The average dynamic spectator sound power level when ISO 6395:2008 is used to measure the value for a machine is 116 dB(A). The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds. NOTE: The dynamic sound power level uncertainty is +/-2 dB(A).
Sound (1)	The average dynamic operator sound pressure level when ISO 6396:2008 is used to measure the value for an enclosed cab is 78 dB(A). 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. NOTE: The dynamic operator sound pressure level uncertainty is +/-2 dB(A).

Sound (2)

Hearing protection may be needed when the machine is operated with an open operator station for extended periods, in a noisy environment, or with a cab that is not properly maintained.

1.0 Forward

3.5 km/h

2.0 Forward

6.3 km/h

3.0 Forward

11 km/h

1.0 Reverse

4.4 km/h

2.0 Reverse

7.8 km/h

3.0 Reverse

13.6 km/h

Type

Planetary powershift

Blade Capacity (SAE J1265)

13.6 m³

Blade Width (over end bits)

4350 mm

Blade Height

1934 mm

Maximum Digging Depth

606 mm

Ground Clearance at Full Lift

1422 mm

Maximum Tilt

940 mm

Blade Weight

4802 kg

Total Operating Weight*
(with blade and single-shank
ripper) 49988 kg

Note * Total Operating Weight includes: single tilt hydraulics, coolant, lubricants, full fuel tank, ROPS, FOPS cab, 610 mm (24 in) ES track shoes and the noted blade and ripper type.

Blade Capacity (SAE J1265) 16.6 m³

Blade Width (over end bits) 4680 mm

Blade Height 1934 mm

Maximum Digging Depth 606 mm

Ground Clearance at Full Lift 1422 mm

Maximum Tilt 1014 mm

Blade Weight 5450 kg

Total Operating Weight*
(with blade and single-shank
ripper) 50513 kg

Note *Total Operating Weight includes: single tilt hydraulics, coolant, lubricants, full fuel tank, ROPS, FOPS cab, 610 mm (24 in) ES track shoes and the noted blade and ripper type.

Maximum penetration force *
(shank vertical) 158 kN

Maximum penetration depth
(standard tip) 1231 mm

Pryout Force 332 kN

Maximum Clearance Raised - Under Tip, Pinned in Bottom Hole 882 mm

Number of Pockets 1

Weight 4854 kg

Total Operating Weight* (with SU Blade and noted ripper) 49988 kg

Note *Total Operating Weight includes: single tilt hydraulics, coolant, lubricants, full fuel tank, ROPS, FOPS cab, 610 mm (24 in) ES track shoes and the noted blade and ripper type.

Maximum penetration force * (shank vertical) 172 kN

Maximum penetration depth (standard tip) 1727 mm

Pryout Force 331 kN

Maximum Clearance Raised - Under Tip, Pinned in Bottom Hole 817 mm

Number of Pockets 1

Weight 4981 kg

Total Operating Weight* (with SU Blade and noted ripper) 50115 kg

Note *Total Operating Weight includes: single tilt hydraulics, coolant, lubricants, full fuel tank, ROPS, FOPS cab, 610 mm (24 in) ES track shoes and the noted blade and ripper type.

Maximum Penetration Force - Shank Vertical	154 kN
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Maximum Penetration - Standard Tip	798 mm
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Pry-Out Force - Multi-Shank Ripper with One Tooth	361 kN
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Maximum Clearance Raised - Under Tip, Pinned in Bottom Hole	879 mm
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Number of Pockets	3
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Weight	5550 kg
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Total Operating Weight* - With SU-Blade and Ripper	50684 kg
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Note	* Total Operating Weight includes: single tilt hydraulics, coolant, lubricants, full fuel tank, ROPS, FOPS cab, 610 mm (24 in) ES track shoes and the noted blade and ripper type.
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Winch Model	PA 140VS
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Weight*	1790 kg
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Oil Capacity	15 l
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Drum Width	320 mm
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Wire Cable Diameter - Recommended	28 mm
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Wire Cable Diameter - Optional	32 mm
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**Maximum Drum Capacity -
Recommended Cable Length** 78 m

**Maximum Drum Capacity -
Optional Cable Length** 62 m

**Wire Cable Ferrule Size -
Outside Diameter** 60 mm

**Wire Cable Ferrule Size -
Length** 70 mm

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

Note (2) Variable speed, hydraulically driven, dual braking system, three-roller fairlead.

Ground Clearance* 459 mm

Track Gauge 2250 mm

**Width - Without Trunnions - Standard
Shoe** 2870 mm

Width - Over Trunnions 3310 mm

Height - FOPS Cab* 3820 mm

Height - Top of Stack* 3876 mm

Height - ROPS/Canopy* 4000 mm

Drawbar Height (Center of Clevis)* 763 mm

Length - Track on Ground	3470 mm
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Overall Length - Basic Tractor	4910 mm
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Length - Basic Tractor - With Drawbar	5242 mm
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Length - Basic Tractor - With Winch	5545 mm
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Length - With SU-Blade**	6601 mm
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Length - With U-Blade	6967 mm
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Length - With Single-Shank Ripper	6529 mm
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Length - With Multi-Shank Ripper	6538 mm
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Overall Length - SU-Blade/SS Ripper	8219 mm
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Note (1)

*Includes grouser height for total dimensions on hard surfaces.

D9 STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

ROPS/FOPS, Sound-Suppressed Cab

High-Definition Primary Touchscreen Display

Visibility - Rearview Mirrors

Air Conditioner and Heater with Automatic Climate Control

Seatbelt, 76 mm (3 in) Retractable with Switch

Seat — Cloth with Air Suspension

Window Wipers with Wash — Low, High, Intermittent

Differential Steering — Power Turn

Entertainment Radio Ready (12V Power, Harness, Speakers)

Cab Glass — Single-Pane Tinted Safety

Cab Door — Right-Hand Swing

Access/Egress Lighting with Shutdown Timer

"Operator Not Present" Detection

Armrest — Adjustable

Interior LED Courtesy Lights

Interior Backlighting — Dimmable

Air Conditioning Condenser — Cab Mounted (Standard only on Tier 4 engine arrangements. Optional on Tier 2/3 versions. Tier 2/3 versions have underhood A/C condenser standard.)

Decelerator Pedal

Controls — Blade — Electronic

Controls — Ripper — Electronic

Park Brake — Electronic

Engine Speed Control Dial

Cab Access — Blade Pusharm Steps and Grab Handle

Fender Platform Guardrails

Site Communication Radio Mount

Four Fluids (Engine Oil, Coolant, Power Train, Fuel)

Continuous Fluid Level Monitoring — Four Fluids (Engine Oil, Power Train, Coolant, Fuel)

Slope and Side Slope Monitor

TECHNOLOGY

VIMS™

Automated Blade Assist (ABA) — When Equipped with Dual Tilt

Cat Product Link Elite (Cellular) (Where Allowed by Local Regulations)

POWER TRAIN

Aftercooler, air-to-air

Air filter, with precleaner

Aluminum bar plate radiator, 6 fpi

C18 Tier 4 Final and Stage IV: - 24-volt electric start - Clean Emissions Module

Coolant, extended life

Shift management: - Advanced Productivity Electronic Control System (APECS) - Enhanced AutoShift (EAS)

Engine idle shutdown timer

Ether starting aid, automatic

Fast fuel system

Fuel priming pump, key-on, electric

High speed oil change system, engine and power train

Muffler

Parking brake, electronic

Prescreener

Separator, water/fuel

Three planet, double-reduction planetary final drives

Torque converter

Transmission, electronic control (ECPC), (3F/3R speeds)

FLUIDS

Coolant — Extended Life, Standard (— 37° C / — 25° F)

UNDERCARRIAGE

Suspension-Type Undercarriage

Track Guide

Two-Piece Master Link

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Lifetime-Lubricated Rollers and Idlers
Hydraulic Track Adjusters
Equalizer Bar — Greased End Pin Bearings

HYDRAULICS

Electronically Controlled, Load-Sensing Dozer Lift and Tilt
Electronically Controlled, Load-Sensing Ripper Lift and Pitch
Electronically Enabled Blade, Quick Drop

ELECTRICAL

Alternator — 150-Amp
Batteries — 2 x 4, 200-Amp Hour, 12V
12V, 15-Amp Converter
Battery Isolation
Backup Alarm
Lights, Engine Compartment
Lights — Halogen — 8 Positions

SERVICE AND MAINTENANCE

Ecology Fluid Drains — All Compartments
Hinged Bottom Guards
High-Speed Oil Change — Engine and Transmission
S•O•SSM Fluid Sampling Ports
Diagnostic Connector
CapSureTM Hammerless Ripper Tip and Shank Protectors
Anchorage Points (10)

D9 OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Visibility – Camera – Ripper Tip View

Visibility — Dual Camera

Visibility — Four Cameras — 360-Degree View

Seat — Heated, Cooled, Adjustable Lumbar and Bolsters

Entertainment Radio — AM/FM, Aux Input and Bluetooth®

Cab Glass — Dual-Pane Laminated Impact Safety

Cab Glass — High-Pressure Safety (40 psi/275 kPa)

Window Sunscreen

Small Operator 5th Percentile Mounting Group

Cab Door — Left-Hand Swing

Cab Access — Powered Ladder

Cab Filter Powered Precleaner

TECHNOLOGY

AutoCarry™

Auto Ripper Control

Cat Product Link Elite Dual Mode (Cellular + Satellite)

Cat GRADE with 3D

POWER TRAIN

Coolant, arctic

Engine prelube

Exhaust, wrapped: – Insolated Clean Emissions Module

Final drives: – Cold weather – Guarded – Waste handling

Ground level DFF fill

Standard Level 2.0

Reversible cooling fan

FLUIDS

Coolant — Extended Life, Arctic (— 51° C / — 60° F)

High Ambient Lubrication Package

Arctic Lubrication Package

UNDERCARRIAGE

Undercarriage Arrangement — Abrasion

Undercarriage Arrangement — Waste Handling

Undercarriage Arrangement — Cold Weather

Front Striker Bars

Rubber Idler Guards

Track Links — Heavy Duty XL — DuraLink

Track Shoe — Anti-Packing Round Hole Carrier Roller

Carrier Roller

Carrier Roller — Cold Weather

HYDRAULICS

Dozer Blade Dual Tilt

Ripper Pin Puller

Guarded Tilt Cylinder Lines

ELECTRICAL

24V Electric Start, Dual Starters

Batteries — 4 x 200, 200-Amp Hour, 12V

Lights — Halogen — 12 Positions

Lights — LED — 14 Positions

Lights — High-Output LED — 14 Positions

Light — Warning Strobe

SERVICE AND MAINTENANCE

Sound-Reduction Sealed Bottom Guards

Ground-Level Fast Fuel Fill (Standard on Tier 4)

Sound Enclosure

Cat Autolube Grease System with Ground-Level Fill and Auto Shutoff

Hinged Quick-Access Door on Radiator Guard

REAR ATTACHMENTS

Ripper Ready

Winch Ready

Ripper — Single Shank

Ripper — Single-Shank Deep

Ripper — Multi Shank (three shank)

Counterweight

Striker Box (Waste)

Winch

Drawbar

BLADES

Semi-Universal (13.6 m³/17.8 yd³)

Semi-Universal Abrasion (13.6 m³/17.8 yd³)

Universal (16.6 m³/21.7 yd³)

Universal Abrasion (16.6 m³/21.7 yd³)

Semi-Universal Push Plate (13.6 m³/17.8 yd³)

SU Landfill (28.2 m³/36.8 yd³)

Universal Landfill (38.8 m³/50.8 yd³)

Woodchip (46.1 m³/60.3 yd³)

Coal (36.8 m³/48.2 yd³)

— Some blades only available through Cat Work Tools.

— SU Abrasion and U Abrasion are available with black paint on back side.

OTHER

Fire Suppression Ready

SPECIAL ARRANGEMENTS

High Debris

Stockpile

Waste Handling

Sound

Arctic

