

Cat®
D1

MULCHER

FEATURES:

IMPROVED VISIBILITY
- A lower sloping hood line provides improved peripheral vision to the mulching head, allowing the operator to better assess the jobsite.

SEAT-MOUNTED CONTROLS
- Mounted on the air suspension seats, these controls isolate the machine vibration from the operator, reducing operator fatigue.

INTUITIVE OPERATOR INTERFACE
- Primary display is a 254 mm (10") touchscreen color monitor with backup camera.

PRESSURIZED CAB
- Heated and air-conditioned cab offers comfortable working environment resulting in less operator fatigue and improved productivity.

HINGED RADIATOR GRILL
- Allows for easy clean out of radiator without the need for tools.

TRACTOR PLATFORM
- Balanced and rugged for operating in rough terrain and soft underfoot conditions.
- Optional blade to provide machine application versatility.

LONG LIFE MULCHING HEAD
- New Cat® HM518 mulcher frame is designed for longer life using cladding material in high-wear areas.

HYDRAULICALLY CONTROLLED
- Mulcher conveniently operates with a hydraulically operated front door and adjustable push bar.

CLOSED LOOP HYDROSTATIC CIRCUIT
- Delivers efficient, high-performance power to the mulcher head, using less pump flow.

REVERSIBLE DRUM
- Easier operation and improved productivity.

DRUM SPEED BAR INDICATOR
- In-cab indicator, aids operator in managing ground speed and overall mulching productivity.

ENGINE
- Cat C3.6 diesel engine meets U.S. EPA Tier 4 Final/EU Stage V emission standards.

UNDERCARRIAGE
- Cat Heavy Duty (HD) track with 406 mm (16 in) or 635 mm (25 in) track shoes provides superior flotation and stability for wide range of operating conditions.

REVERSING FAN
- Auto-reversing fan changes air flow direction to purge debris from radiator and enclosures.

TURBINE PRECLEANER
- Improves engine air filter life by removing large debris particles.

IMPROVED FUEL ECONOMY
- The D1 features the lowest fuel consumption in this size class with the same great performance you've come to expect.

CAT®

D1 Mulcher Specifications

Specifications

Engine

Engine model	Cat C3.6	
Net power @ 2,200 rpm		
SAE J1349	77.6 kW	104 hp
ISO 9249/EEC 80/1269	77.6 kW	104 hp
Powertrain	Hydrostatic	
Displacement	3.6 L	220 in^3

- Net power is tested per ISO 9249:2007 and SAE J1349:2011 and, as advertised, is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.
- All non-road U.S. EPA Tier 4 Final, EU Stage V, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm EPA/10 ppm EU (mg/kg) sulfur or less.

Weights

Operating weight	10 586 kg	23,338 lb
Operating weight – LGP	10 981 kg	24,209 lb

- Specifications shown are for machine equipped with mulcher, cab Rollover Protective Structure (ROPS), back-up alarm, operator, coolant, lubricants and full fuel tank.

Cab

ROPS	ISO 3471:2008
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level II

Transmission

Drive pumps	1	
Track motors	2	
Relief valve settings	48 500 kPa	7,033 psi
Maximum travel speed – forward	9 km/h	5.6 mph
Maximum travel speed – reverse	10 km/h	6.2 mph

Undercarriage

Number of rollers (each side)	6	
Number of shoes (each side) –		
Heavy Duty (HD) track	43	
Shoe width	406 mm	16 in
Shoe width – LGP	635 mm	25 in
Length of track on ground	2248 mm	89 in
Length of track on ground – LGP	2248 mm	89 in
Track gauge	1495 mm	59 in
Track gauge – LGP	1725 mm	68 in
Ground pressure	44.5 kPa	6.45 psi
Ground pressure – LGP	29.9 kPa	4.3 psi

Service Refill Capacities

Fuel tank	195 L	51.5 gal
Crankcase and filter	10.5 L	2.8 gal
Final Drives, (each side)	10 L	2.6 gal
Final Drives, LGP (each side)	10 L	2.6 gal
Cooling system	19 L	4.2 gal
Transmission/hydraulic tank	90 L	23.8 gal
Diesel Exhaust Fluid (DEF) tank	19 L	4.9 gal

Hydraulic Controls

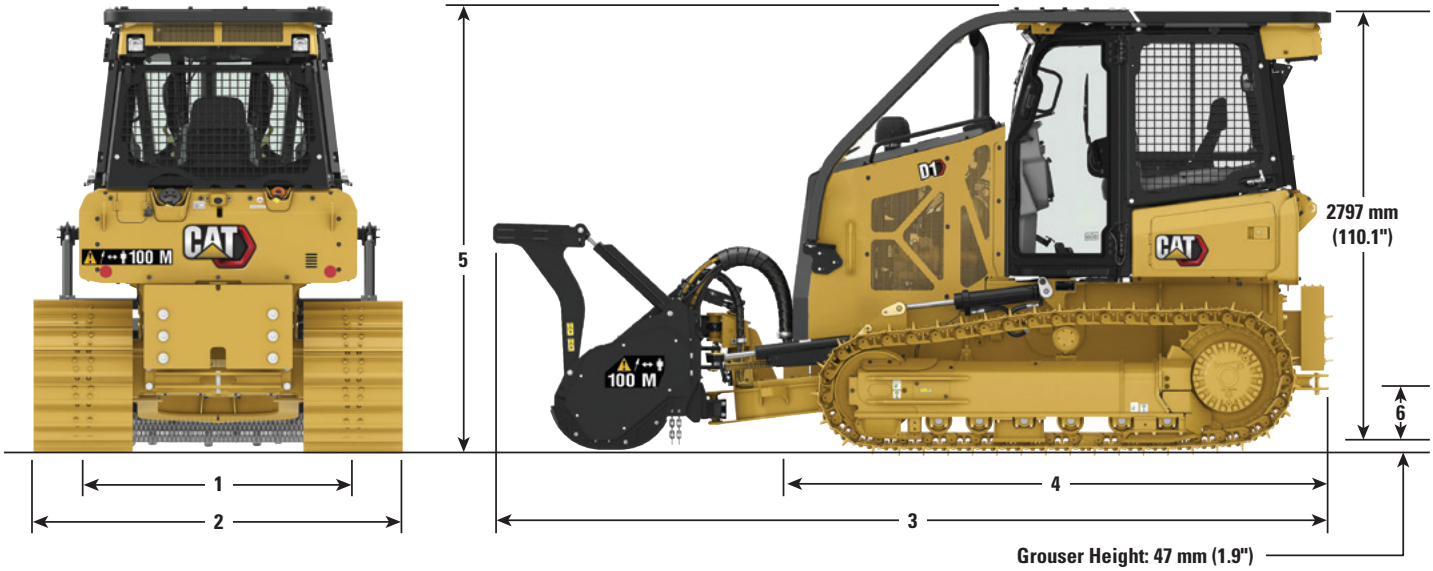
Pump output	65 L/min	17.2 gal/min
Relief valve settings	20 600 kPa	2,988 psi

Retrieval Winch

Weight	794 kg	1,747 lb
Winch drive	Hydraulic	
Control	Hydraulic	
Speed	Variable	
Winch length	905 mm	35.63 in
Overall width	709 mm	27.91 in
Drum diameter	203.2 mm	8 in
Drum width	245 mm	9.65 in
Throat clearance	141.4 mm	5.6 in
Rope diameter – recommended	16 mm	5/8 in
Rope diameter – optional	19 mm	3/4 in
Drum capacity – recommended cable	84 m	277 ft
Drum capacity – optional cable	59 m	195 ft
Maximum line pull – bare drum	14 583 kg	32,150 lb
Maximum line pull – full drum	9231 kg	20,350 lb
Maximum line speed – bare drum	15 m/min	50 ft/min
Maximum line speed – full drum	24 m/min	79 ft/min

Dimensions

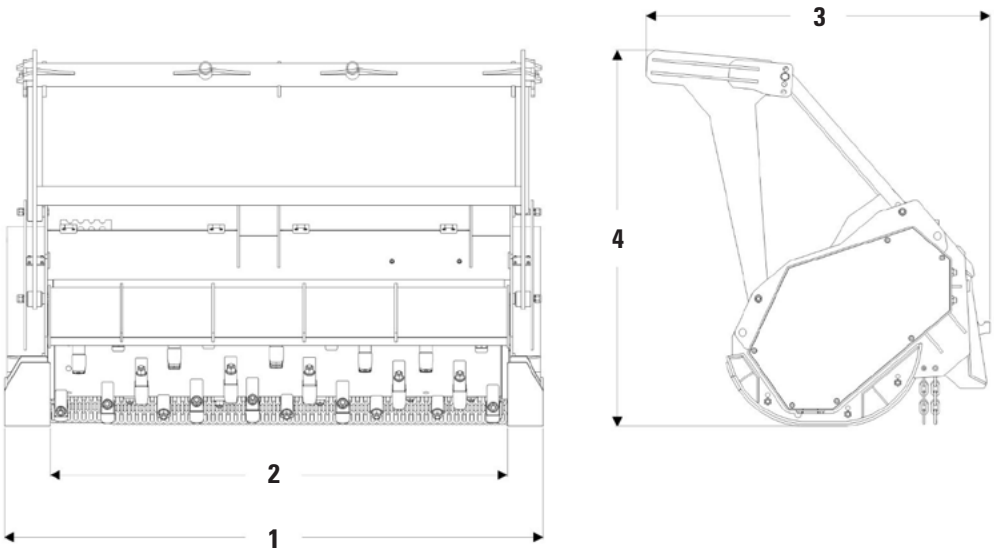
All dimensions are approximate.



	Standard		LGP	
1 Track gauge	1495 mm	58.9 in	1725 mm	67.9 in
2 Width of dozer (standard shoes, no mulcher)	1901 mm	74.8 in	2360 mm	92.9 in
3 Overall length (with blade)	4266 mm	168 in	4255 mm	167.6 in
4 Length of basic dozer (without mulcher)	3275 mm	128.9 in	3275 mm	128.9 in
5 Dozer height	2845 mm	112 in	2763 mm	108.8 in
6 Ground clearance	332 mm	13 in	332 mm	13 in

D1 Mulcher Specifications

Dimensions



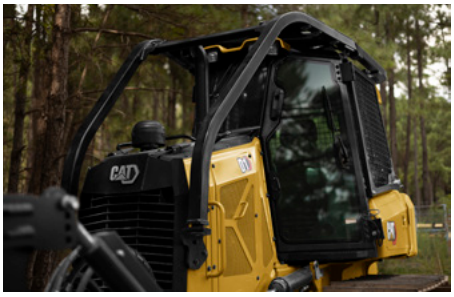
	HM518	
1 Overall width	2122 mm	84 in
2 Working width	1822 mm	72 in
3 Length	1354 mm	53 in
4 Overall height	1480 mm	58 in
Lift height	787 mm	31 in
Maximum tilt	368 mm	14.5 in
Maximum angle (either side)	25°	
Weight	1450 kg	3,197 lb
Drive method	Polychain belt	
Motor	Closed loop hydrostatic	
Optimum hydraulic flow	114 L/min	30 gal/min
Optimum hydraulic pressure	407 bar	5900 psi
Drum speed range	2,150-2,450 rpm	
Fixed teeth per drum	38	



HM518 Mulcher



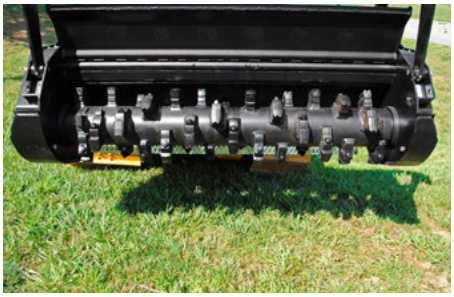
Single bolt carbide tooth retention



Sweeps and screens



Mounting point same as blade



72 inch drum



Bolt-on wear plates



Drum direction and speed bar



Rear guard and counterweight



Pressure gauge with color bars

D1 Mulcher Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
POWERTRAIN		
Cat C3.6 diesel engine	✓	
Turbocharged aftercooled	✓	
Aluminum bar plate cooling system (radiator, powertrain)	✓	
Air cleaner with pre-cleaner, automatic dust ejection and under-hood intake	✓	
Automatic traction control	✓	
Drive, auxiliary	✓	
Dual path, closed-loop hydrostatic transmission	✓	
Electric fuel pump	✓	
Fuel/water separator	✓	
Reversing fan	✓	
ELECTRICAL		
Alternator, 150 Amp, heavy duty	✓	
Alarm, backup	✓	
Batteries, heavy duty, maintenance free, 1,000 CCA	✓	
Diagnostic connector	✓	
Horn, electric	✓	
Four integrated front halogen lights, two rear halogen	✓	
Four integrated front LED lights, two rear LED		✓
Starter, electric, 12 volt heavy duty	✓	
UNDERCARRIAGE		
Heavy Duty (HD) Track	✓	
6 roller track frame	✓	
Track rollers, lifetime lubricated	✓	
Carrier rollers	✓	
Track adjusters, hydraulic	✓	
Guards, front/rear guiding	✓	
MULCHER HYDRAULICS		
Hydraulics, 4 valve (for use with retrieval winch or ripper)	✓	
Load sensing hydraulics	✓	
Single lever, three function control	✓	
Hydraulic pump and oil	✓	
Closed-loop hydrostatic circuit	✓	
Axial piston variable displacement pump and motor	✓	
GUARDS		
Guard, track guiding, center	✓	
Screen, rear, cab	✓	
Screen, side, cab	✓	
Sweeps, front	✓	
Sweeps, rear	✓	
Heavy duty crankcase guard	✓	
BLADES*		
VPAT XL blade		✓
VPAT LGP blade		✓
VPAT intermediate blade		✓

*Blades available to order at time of dozer purchase or post purchase through your Cat dealer.

	Standard	Optional
OPERATOR ENVIRONMENT		
ROPS/FOPS cab	✓	
Cab, polycarbonate windows and air conditioning	✓	
Seat, air suspended, cloth	✓	
Seatbelt, retractable 76 mm (3 in)	✓	
Foot pads, dash	✓	
Primary display, 254 mm (10") touchscreen color monitor with back up camera	✓	
Electronic Monitoring System with: – Gauges for engine coolant temperature, hydraulic oil temperature and fuel level – Travel speed limiter, electronic – Engine RPM and gear display – Hour meter, electric – Engine air cleaner service indicator, electronic – Water-in-fuel indicator, electronic – Mulcher drum speed and direction bar	✓	
Slope Indicate	✓	
Throttle switch, rotary	✓	
Controls, seat mounted, fore/aft adjustment	✓	
Armrests, adjustable	✓	
Mirror, rearview, inside	✓	
Single pedal combining deceleration and braking functions	✓	
Independent forward/reverse speed settings	✓	
Power port, 12 volt	✓	
Radio, AM/FM, Bluetooth®		✓
Coat hook	✓	
Storage compartment	✓	
Cup holder	✓	
Floor mat, rubber, heavy duty	✓	
OTHER		
Cat Product Link™ PL641 cellular	✓	
C-Frame, VPAT, hydraulic cylinders and lines	✓	
Lockable engine enclosures	✓	
Front pull device	✓	
Ecology drains (engine, powertrain and implement oil and engine coolant)	✓	
Scheduled oil sampling (SOS℠) ports (engine, powertrain implement oil)	✓	
Vandalism protection	✓	
Hinged radiator grill	✓	
Rearview camera	✓	
Counterweight, rear		✓
Winch, retrieval		✓
Heater, engine, coolant, 120 volt		✓
Starting aid, ether		✓
Extended life coolant, –50° C (–58° F)		✓
Extended life coolant, –37° C (–35° F)	✓	

D1 Mulcher Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat® C3.6 engine meets U.S. EPA Tier 4 Final and EU Stage V, and Japan 2014 emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

  Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf (Europe). See label or instruction manual for gas refrigerant identification. If machine is equipped with R134a (Global Warming Potential = 1430), the system contains 1.8 kg (4.0 lbs) of refrigerant, which has a CO_2 equivalent of 2.574 metric tonnes (2.873 tons). If machine is equipped with R1234yf (Global Warming Potential = 0.501), the system contains 1.7 kg (3.75 lbs) of refrigerant, which has a CO_2 equivalent of less than 0.001 metric tonnes (0.001 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - Barium < 0.01%
  - Cadmium < 0.01%
  - Chromium < 0.01%
  - Lead < 0.01%

Sound Performance

With cooling fan speed at 70% of the maximum value:

Guaranteed Exterior Sound Power (2000/14/EC ISO 6395:2008) – 109 dB(A)

Dynamic Operator Sound Pressure Level (ISO 6396:2008) – 76 dB(A)

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Eco mode minimizes fuel consumption for light applications
  - Save fuel with efficiency features such as engine idle shutdown
  - Extended maintenance intervals reduce fluid and filter consumption
  - Cut maintenance costs with extended maintenance intervals
  - Remote Flash and Remote Troubleshoot

Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	81.19%
Iron	8.48%
Nonferrous Metal	3.29%
Uncategorized	1.87%
Fluid	1.52%
Other	1.36%
Mixed Metal	0.87%
Plastic	0.64%
Mixed-Metal and Nonmetal	0.60%
Rubber	0.18%
Mixed Nonmetallic	0%
Total	100.00%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714 (Earth-moving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

  All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

  Because of variations of product configurations, the following values in the table may vary.

Recyclability – 98%

The data provided above was based on the product configuration as provided by the individual product group.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com**

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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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