



# D9

## Dozer

# Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

## Table of Contents

<b>Specifications</b> .....	<b>2</b>
Engine – U.S. EPA Tier 2/3 Equivalent .....	2
Engine – U.S. EPA Tier 4 Final/EU Stage V .....	2
Fluid Capacities .....	2
Weights .....	2
Hydraulic Controls .....	2
Undercarriage .....	3
Steering and Brakes .....	3
Air Conditioning System .....	3
Standards .....	3
Transmission .....	4
Drawbar Pull vs. Track Speed .....	4
Blade .....	4
Ripper .....	4
Winch .....	5
Track Links and Shoes .....	5
Dimensions .....	6
<b>Standard and Optional Equipment</b> .....	<b>7</b>

# D9 Dozer Specifications

## Engine – U.S. EPA Tier 2/3 Equivalent

Engine Model	Cat® C18	
Bore	145 mm	5.7 in <sup>3</sup>
Stroke	183 mm	7.2 in <sup>3</sup>
Displacement	18.1 L	1,106 in <sup>3</sup>
Engine Power		
Gross SAE J1995	363 kW	487 hp
ISO 14396	357 kW	479 hp
Net SAE J1349/ISO 9249	337 kW	452 hp

- Emissions U.S. EPA Tier 2 or Tier 3 equivalent.
- All engine ratings apply at 1,750 rpm.
- No derating required up to 4570 m (15,000 ft) altitude.

## Fluid Capacities

Fuel Tank (Splash Fill)	963 L	254 gal
DEF Tank (Tier 4 only)	36 L	9.5 gal
Fuel Tank (Fast Fill)	939 L	248 gal
Cooling System	81.3 L	21 gal
Engine Crankcase*	36 L	10 gal
Power Train	150 L	40 gal
Final Drive – Each	15 L	4 gal
Roller Frames – Each	45 L	12 gal
Pivot Shaft Compartment	30 L	8 gal
Implement Hydraulic System	89 L	24 gal

\*With oil filters.

- 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-ULS™ 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.
- 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.
- 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.

## Engine – U.S. EPA Tier 4 Final/EU Stage V

Engine Model	Cat C18	
Bore	145 mm	5.7 in <sup>3</sup>
Stroke	183 mm	7.2 in <sup>3</sup>
Displacement	18.1 L	1,106 in <sup>3</sup>
Engine Power		
Gross SAE J1995	356 kW	477 hp
ISO 14396	349 kW	468 hp
Net SAE J1349/ISO 9249	328 kW	440 hp

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

- All engine ratings apply at 1,750 rpm.
- No derating required up to 3658 m (12,000 ft) altitude.

## Weights

Operating Weight	49 988 kg	110,225 lb
Shipping Weight	38 271 kg	84,373 lb

- D9 Operating 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.
- D9 Shipping Weight includes base machine chassis with cab, pivot shaft, roller frames, track and ROPS.

## Hydraulic Controls

Pump Type	Piston-type geared to flywheel	
Steering Pump Output	363 L/min	96 gal/min
Fan Pump	80 L/min	21 gal/min
Tilt Cylinder Rod End Flow	200 L/min	53 gal/min
Tilt Cylinder Head End Flow	200 L/min	53 gal/min
Lift Cylinder Relief Valve Setting	26 200 kPa	3,800 psi
Tilt Cylinder Relief Valve Setting	19 300 kPa	2,799 psi
Ripper Lift Relief Setting	26 200 kPa	3,800 psi
Ripper Pitch Relief Setting	26 200 kPa	3,800 psi
Steering System Pressure	40 500 kPa	5,874 psi
Tank Capacity	89 L	24 gal/min

- Steering pump output measured at 1,750 engine rpm and 30 000 kPa (4,350 psi).
- Implement pump output measured at 1,750 engine rpm and 20 000 kPa (2,900 psi).
- Fan pump output measured at 1,750 engine rpm and 17 000 kPa (2,470 psi).

## Undercarriage

Shoe Type	Extreme Service	
Width of Shoe	610 mm	24.0 in
Shoes/Side	43	
Grouser Height	84 mm	3.3 in
Pitch	240 mm	9.4 in
Ground Clearance	459 mm	18.1 in
Track Gauge	2250 mm	88.6 in
Length of Track on Ground	3470 mm	136.6 in
Ground Contact Area	4.23 m <sup>2</sup>	45.6 ft <sup>2</sup>
Track Rollers/Side	8	
Number of Carrier Rollers	1 (opt)	

## Steering and Brakes

Steering Type	Differential	
Brake Type	Spring Applied Wet Disc	
Brake Diameter	393.7 mm	15.5 in
Brake Count	8	

## Air Conditioning System

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 CO<sub>2</sub> equivalent of 3.003 metric tonnes.

## Standards

### ROPS/FOPS

- Rollover Protective Structure (ROPS) meets the following criteria ISO 3471:2008.
- Falling Object Protective Structure (FOPS) meets the following criteria ISO 3449:2005 LEVEL II.

### Sound

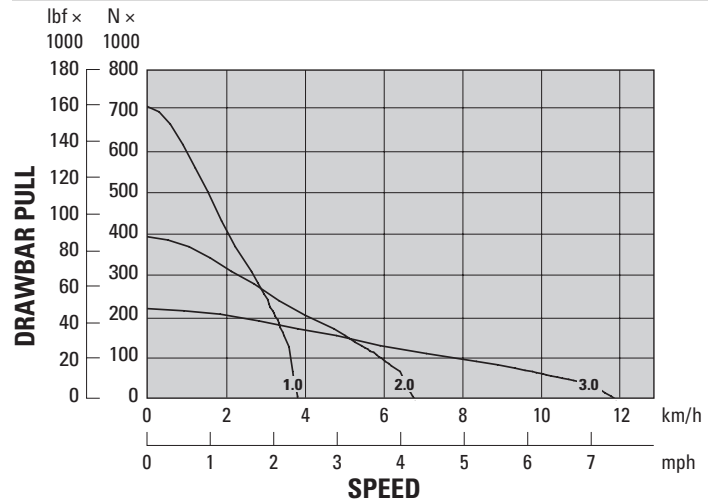
- The average dynamic spectator sound power level when “ISO 6395:2008” is used to measure the value for a machine is 116 dB(A). The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds. NOTE: The dynamic sound power level uncertainty is ±2 dB(A).
- 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).
- 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.

# D9 Dozer Specifications

## Transmission

1 Forward	3.5 km/h	2.2 mph
2 Forward	6.3 km/h	3.9 mph
3 Forward	11.0 km/h	6.8 mph
1 Reverse	4.4 km/h	2.7 mph
2 Reverse	7.8 km/h	4.8 mph
3 Reverse	13.6 km/h	8.4 mph
Type	Planetary powershift	

## Drawbar Pull vs. Track Speed



## Blade

	Semi-Universal		Universal	
Blade Capacity (SAE J1265)	13.6 m <sup>3</sup>	17.8 yd <sup>3</sup>	16.6 m <sup>3</sup>	21.7 yd <sup>3</sup>
Blade Width (over end bits)	4376 mm	172.3 in	4648 mm	183.0 in
Blade Height	1934 mm	76.1 in	1934 mm	76.1 in
Maximum Digging Depth	606 mm	23.9 in	606 mm	23.9 in
Ground Clearance at Full Lift	1422 mm	56.0 in	1422 mm	56.0 in
Maximum Tilt	940 mm	37.0 in	1014 mm	39.9 in
Blade Weight	4802 kg	10,587 lb	5450 kg	12,016 lb
Total Operating Weight* (with blade and single-shank ripper)	49 988 kg	110,205 lb	50 513 kg	111,362 lb

\*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.

## Ripper

	Single Shank		Single Shank Deep		Multi Shank	
Maximum Penetration Force (shank vertical)	158 kN	35,520 lbf	172 kN	38,667 lbf	154 kN	34,621 lbf
Maximum Penetration (standard tip)	1231 mm	48.5 in	1727 mm	68.0 in	798 mm	31.4 in
Pryout Force (M.S. with one tooth)	332 kN	74,637 lbf	331 kN	74,412 lbf	361 kN	81,156 lbf
Maximum Clearance Raised (under tip pinned in bottom hole)	882 mm	34.7 in	817 mm	32.2 in	879 mm	34.6 in
Number of Pockets	1		1		3	
Weight	4854 kg	10,701 lb	4981 kg	10,981 lb	5550 kg	12,136 lb
Total Operating Weight* (with SU Blade and noted ripper)	49 988 kg	110,205 lb	50 115 kg	110,485 lb	50 684 kg	111,739 lb

\*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.

## Winch

Winch Model	PA 140VS	
Weight*	1790 kg	3,950 lb
Oil Capacity	15 L	4 gal
Drum Width	320 mm	12.6 in
Wire Cable Diameter		
Recommended	28 mm	1.13 in
Optional	32 mm	1.25 in
Maximum Drum Capacity		
Recommended Cable Length	78 m	257 ft
Optional Cable Length	62 m	204 ft
Wire Cable Ferrule Size – Outside Diameter	60 mm	2.4 in
Wire Cable Ferrule Size Length	70 mm	2.8 in

\*Weight shown is base winch only. Does not include mounting arrangement, control arrangement, oil, or wire rope.

With counterweight: 3700 kg (8,150 lb).

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

## Track Links and Shoes

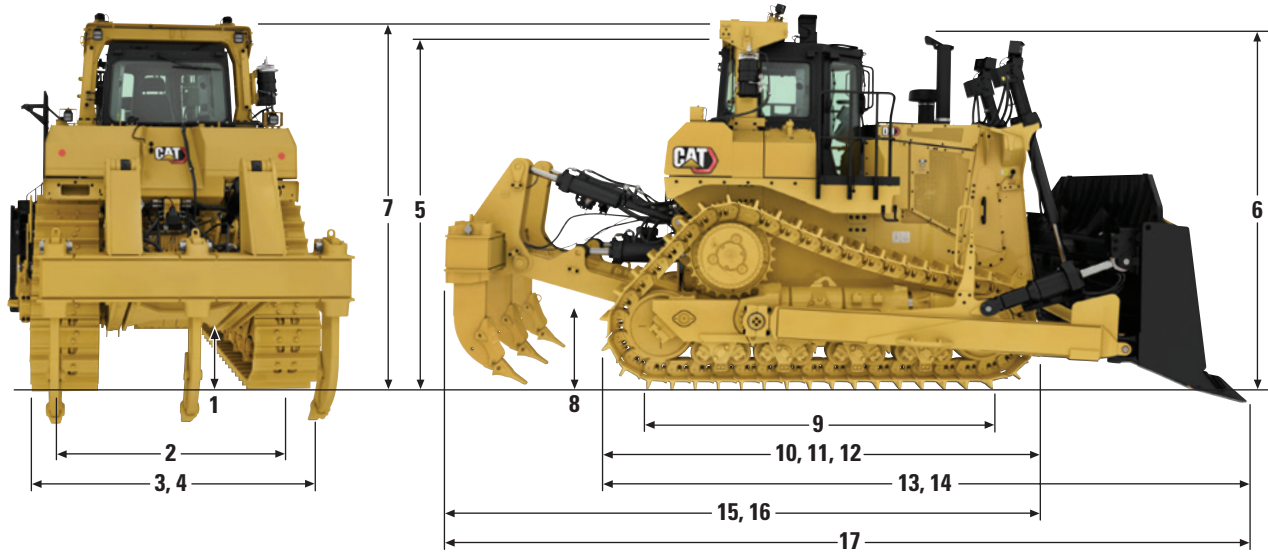
Common track link and track shoe offering shown below. Additional arrangements available; some will be offered through parts system only.

	Moderate Service	Extreme Service	Super Extreme Service	Round Hole
<b>Heavy Duty</b>				
560 mm (22")		✓		
610 mm (24")		✓		
610 mm (24")		✓		✓
610 mm (24")			✓	
610 mm (24")			✓	✓
685 mm (27")		✓		
685 mm (27")		✓		✓
685 mm (27")			✓	
760 mm (30")	✓			
760 mm (30")	✓			✓
<b>Heavy Duty, Extended Life with DuraLink™ (HDXL)</b>				
610 mm (24")		✓		
685 mm (27")		✓		
760 mm (30")	✓			
760 mm (30")	✓			✓
<b>General Duty</b>				
610 mm (24")		✓		
685 mm (27")		✓		

# D9 Dozer Specifications

## Dimensions

All dimensions are approximate.



	<b>D9</b>	
<b>1</b> Ground Clearance	459 mm	18.1 in
<b>2</b> Track Gauge	2250 mm	88.6 in
<b>3</b> Width without Trunnions (standard shoe)	2870 mm	113.0 in
<b>4</b> Width over Trunnions	3310 mm	130.3 in
<b>5</b> Height (FOPS cab)	3820 mm	150.4 in
<b>6</b> Height (top of stack)	3876 mm	152.6 in
<b>7</b> Height (ROPS)	4000 mm	157.5 in
<b>8</b> Drawbar Height (center of clevis)	763 mm	30.0 in
<b>9</b> Length of Track on Ground	3470 mm	136.6 in
<b>10</b> Overall Length – Basic Tractor	4910 mm	193.3 in
<b>11</b> Length – Basic Tractor with Drawbar	5242 mm	206.4 in
<b>12</b> Length – Basic Tractor with Winch	5545 mm	218.3 in
<b>13</b> Length with SU Blade	6601 mm	259.9 in
<b>14</b> Length with U Blade	6967 mm	274.3 in
<b>15</b> Length with SS Ripper	6529 mm	257.0 in
<b>16</b> Length with MS Ripper	6538 mm	257.4 in
<b>17</b> Overall Length (SU/SS)	8219 mm	323.6 in

# D9 Dozer Standard and Optional Equipment

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>OPERATOR ENVIRONMENT</b>					
ROPS/FOPS, Sound-Suppressed Cab	✓		Armrest – Adjustable	✓	
High-Definition Primary Touchscreen Display	✓		Interior LED Courtesy Lights	✓	
Visibility – Rearview Mirrors	✓		Interior Backlighting – Dimmable	✓	
Visibility – Camera – Ripper Tip View		✓	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.)	✓	
Visibility – Dual Camera		✓	Decelerator Pedal	✓	
Visibility – Four Cameras – 360-Degree View		✓	Controls – Blade – Electronic	✓	
Air Conditioner and Heater with Automatic Climate Control	✓		Controls – Ripper – Electronic	✓	
Seatbelt, 76 mm (3 in) Retractable with Switch	✓		Park Brake – Electronic	✓	
Seat – Cloth with Air Suspension	✓		Engine Speed Control Dial	✓	
Seat – Heated, Cooled, Adjustable Lumbar and Bolsters		✓	Cab Access – Blade Pusharm Steps and Grab Handle	✓	
Window Wipers with Wash – Low, High, Intermittent	✓		Cab Access – Powered Ladder		✓
Differential Steering – Power Turn	✓		Fender Platform Guardrails	✓	
Entertainment Radio Ready (12V Power, Harness, Speakers)	✓		Site Communication Radio Mount	✓	
Entertainment Radio – AM/FM, Aux Input and Bluetooth®		✓	Cab Filter Powered Precleaner		✓
Cab Glass – Single-Pane Tinted Safety	✓		Four Fluids (Engine Oil, Coolant, Power Train, Fuel)	✓	
Cab Glass – Dual-Pane Laminated Impact Safety		✓	Continuous Fluid Level Monitoring – Four Fluids (Engine Oil, Power Train, Coolant, Fuel)	✓	
Cab Glass – High-Pressure Safety (40 psi/275 kPa)		✓	Slope and Side Slope Monitor	✓	
Window Sunscreen		✓	<b>CAT TECHNOLOGY PRODUCTS</b>		
Small Operator 5th Percentile Mounting Group		✓	VIMSTM	✓	
Cab Door – Right-Hand Swing	✓		Automated Blade Assist (ABA) – When Equipped with Dual Tilt	✓	
Cab Door – Left-Hand Swing		✓	AutoCarry™		✓
Access/Egress Lighting with Shutdown Timer	✓		Auto Ripper Control		✓
“Operator Not Present” Detection	✓		Cat Product Link Elite (Cellular) (Where Allowed by Local Regulations)	✓	
			Cat Product Link Elite Dual Mode (Cellular + Satellite)		✓
			Cat GRADE with 3D		✓

(continued on next page)

# D9 Dozer Standard and Optional Equipment

## Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
<b>POWER TRAIN</b>			<b>FLUIDS</b>		
Cat C18 Engine – U.S. EPA Tier 4 Final, U.S. EPA Tier 2 or 3 Equivalent, or EU Stage V	✓		Coolant – Extended Life, Standard (–37° C/–25° F)	✓	
Air-to-Air Aftercooler	✓		Coolant – Extended Life, Arctic (–51° C/–60° F)		✓
Air Filters – With Electronic Service Indicator	✓		High Ambient Lubrication Package		✓
High-Performance Aluminum Single-Plane Cooling Module	✓		Arctic Lubrication Package		✓
Stator Clutch Torque Converter – Electronic Control	✓		<b>UNDERCARRIAGE</b>		
Powershift Transmission – Three-Speed Electronic Shift	✓		Undercarriage Arrangement – Abrasion		✓
Enhanced Auto Shifting (EAS)	✓		Undercarriage Arrangement – Waste Handling		✓
Auto Engine Idle Shutdown	✓		Undercarriage Arrangement – Cold Weather		✓
Hydraulic Cooling Fan – Automatic Reversing		✓	Front Striker Bars		✓
Abrasion-Resistant Cooling Fan		✓	Rubber Idler Guards		✓
Precleaner – Strata™ Cap Dust Ejector	✓		Suspension-Type Undercarriage	✓	
Precleaner – Turbine		✓	Track Guide	✓	
Thermal Manifold and Turbo Shields		✓	Two-Piece Master Link	✓	
Starting Aid – Engine Heater Group (120V or 240V)		✓	Lifetime-Lubricated Rollers and Idlers	✓	
Starting Aid – Automatic Ether		✓	Hydraulic Track Adjusters	✓	
Fuel Heater		✓	Equalizer Bar – Greased End Pin Bearings	✓	
Fuel Cooler (Tier 4 Only)		✓	Track Links – Heavy Duty XL – DuraLink		✓
Fuel Priming Pump – Automatic	✓		Track Shoe – Anti-Packing Round Hole		✓
Fuel Water Separator	✓		Carrier Roller		✓
High-Capacity Secondary Fuel Filter (Tier 2/3 Only)		✓	Carrier Roller – Cold Weather		✓
Final Drive Seal – Guarded		✓	<b>HYDRAULICS</b>		
Final Drive Seal – Waste		✓	Electronically Controlled, Load-Sensing Dozer Lift and Tilt	✓	
Final Drive Seal – Cold Weather		✓	Electronically Controlled, Load-Sensing Ripper Lift and Pitch	✓	
Radiator – Aluminum Bar Plate	✓		Dozer Blade Dual Tilt		✓
Engine Oil Prelubrication System		✓	Electronically Enabled Blade, Quick Drop	✓	
Radiator – Sandblast Protection		✓	Ripper Pin Puller		✓
			Guarded Tilt Cylinder Lines		✓

*(continued on next page)*



# D9 Dozer Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
<b>ELECTRICAL</b>			<b>REAR ATTACHMENTS</b>		
24V Electric Start, Dual Starters		✓	Ripper Ready		✓
Alternator – 150-Amp	✓		Winch Ready		✓
Batteries – 2 × 4, 200-Amp Hour, 12V	✓		Ripper – Single Shank		✓
Batteries – 4 × 200, 200-Amp Hour, 12V		✓	Ripper – Single-Shank Deep		✓
12V, 15-Amp Converter	✓		Ripper – Multi Shank (three shank)		✓
Battery Isolation	✓		Counterweight		✓
Backup Alarm	✓		Striker Box (Waste)		✓
Lights, Engine Compartment	✓		Winch		✓
Lights – Halogen – 8 Positions	✓		Drawbar		✓
Lights – Halogen – 12 Positions		✓	<b>BLADES</b>		
Lights – LED – 14 Positions		✓	Semi-Universal (13.6 m <sup>3</sup> /17.8 yd <sup>3</sup> )		✓
Lights – High-Output LED – 14 Positions		✓	Semi-Universal Abrasion (13.6 m <sup>3</sup> /17.8 yd <sup>3</sup> )		✓
Light – Warning Strobe		✓	Universal (16.6 m <sup>3</sup> /21.7 yd <sup>3</sup> )		✓
<b>SERVICE AND MAINTENANCE</b>			Universal Abrasion (16.6 m <sup>3</sup> /21.7 yd <sup>3</sup> )		✓
Ecology Fluid Drains – All Compartments	✓		Semi-Universal Push Plate (13.6 m <sup>3</sup> /17.8 yd <sup>3</sup> )		✓
Hinged Bottom Guards	✓		SU Landfill (28.2 m <sup>3</sup> /36.8 yd <sup>3</sup> )		✓
Sound-Reduction Sealed Bottom Guards		✓	Universal Landfill (38.8 m <sup>3</sup> /50.8 yd <sup>3</sup> )		✓
High-Speed Oil Change – Engine and Transmission	✓		Woodchip (46.1 m <sup>3</sup> /60.3 yd <sup>3</sup> )		✓
Ground-Level Fast Fuel Fill (Standard on Tier 4)		✓	Coal (36.8 m <sup>3</sup> /48.2 yd <sup>3</sup> )		✓
S·O·S <sup>SM</sup> Fluid Sampling Ports	✓		<ul style="list-style-type: none"> <li>• Some blades only available through Cat Work Tools.</li> <li>• SU Abrasion and U Abrasion are available with black paint on back side.</li> </ul>		
Diagnostic Connector	✓		<b>OTHER</b>		
Sound Enclosure		✓	Fire Suppression Ready		✓
Cat Autolube Grease System with Ground-Level Fill and Auto Shutoff		✓	<b>SPECIAL ARRANGEMENTS</b>		
CapSure™ Hammerless Ripper Tip and Shank Protectors	✓		High Debris		✓
Anchorage Points (10)	✓		Stockpile		✓
Hinged Quick-Access Door on Radiator Guard		✓	Waste Handling		✓
			Sound		✓
			Arctic		✓



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)

© 2020 Caterpillar  
All rights reserved

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

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Corporate Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEXQ2868-01 (08-2020)  
Replaces AEXQ2868  
Build Number: 07A  
(Global)

