



120

Motor Grader

Technical Specifications

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

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120 Motor Grader Specifications

Engine – Tier 3/Stage IIIA Equivalent

Engine Model	Cat C7.1	
Emissions	Brazil MAR-1 emission standards, U.S. EPA Tier 3 and EU Stage IIIA equivalent	
Base Net Power ISO 9249/SAE J1349	97 kW	130 hp
Base Net Power EEC 80/1269 (metric)	132 hp	
Power Range – Net	97-116 kW	130-156 hp
Power Range – Net (metric)	132-158 hp	
All Wheel Drive Range – Net	100-129 kW	135-173 hp
All Wheel Drive Range – Net (metric)	137-176 hp	
Bore	105 mm	4.1 in
Displacement	7.01 L	427.8 in ³
Stroke	135 mm	5.3 in
Engine RPM	2,000	
Number of Cylinders	6	
Torque Rise – ISO 9249	42%	
Maximum Torque – ISO 9249	822 N·m	606 lb-ft
Maximum Torque (All-Wheel Drive On)	828 N·m	611 lb-ft
Derating Altitude	4500 m	14,764 ft
Derating Altitude AWD	3000 m	9,842 ft
Maximum – Fan Speed	1,300 rpm	
Minimum – Fan Speed	600 rpm	
Ambient Capacity	50° C	122° F

- Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
 - ✓ 100% 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.

**For use of blends higher than 20% biodiesel, consult your Cat dealer.*

Engine – Tier 4 Final/Stage V

Engine Model	C7.1	
Emissions	U.S. EPA Tier 4 Final/ EU Stage V	
Base Net Power ISO 9249/SAE J1349 EEC 80/1269	104 kW	140 hp
Base Net Power ISO 9249/SAE J1349 EEC 80/1269 (metric)	142 hp	
Power Range – Net	104-123 kW	140-164 hp
Power Range – Net (metric)	142-167 hp	
All Wheel Drive Range – Net	108-141 kW	144-189 hp
All Wheel Drive Range – Net (metric)	146-192 hp	
Bore	105 mm	4.1 in
Displacement	7.01 L	427.8 in ³
Stroke	135 mm	5.3 in
Engine RPM	2,000	
Number of Cylinders	6	
Torque Rise – ISO 9249	42%	
Maximum Torque – ISO 9249	822 N·m	606 lb-ft
Maximum Torque (All-Wheel Drive On)	828 N·m	611 lb-ft
Derating Altitude	3000 m	9,842 ft
Derating Altitude AWD	1676 m	5,499 ft
Maximum – Fan Speed	1,300 rpm	
Minimum – Fan Speed	600 rpm	
Ambient Capacity	50° C	122° F

- 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).*

- Net Power is tested per ISO 9249, SAE J1349, and EEC 80/1269 Standards in effect at the time of manufacture.
- Net power advertised is the power available at rated speed of 2,000 rpm, measured at the flywheel when engine is equipped with fan, air cleaner, muffler, and alternator.
- VHP Plus is standard for the 120 and 120 all-wheel drive (AWD).
- Rated speed at 2,000 rpm.
- Biodiesel blends up to B30 (30% blend by volume) are acceptable when blended with 500 ppm (mg/kg) sulfur or less ULSD. B30 should meet ASTM D7467 specification (biodiesel blend 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.

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120 Net Power – Tier 3/Stage IIIA Equivalent

Gear	Non-AWD – kW (hp)	AWD Off – kW (hp)	AWD On – kW (hp)
Forward			
1st	97 (130)	100 (135)	101 (136)
2nd	97 (130)	100 (135)	101 (136)
3rd	101 (136)	104 (140)	107 (144)
4th	108 (145)	111 (149)	115 (155)
5th	112 (150)	124 (167)	128 (171)
6th	116 (156)	129 (173)	129 (173)
7th	116 (156)	129 (173)	129 (173)
8th	116 (156)	129 (173)	129 (173)
Reverse			
1st	97 (130)	100 (135)	101 (136)
2nd	97 (130)	100 (135)	101 (136)
3rd-6th	101 (135)	104 (140)	107 (144)

120 Net Power – Tier 4 Final/Stage V

Gear	Non-AWD – kW (hp)	AWD Off – kW (hp)	AWD On – kW (hp)
Forward			
1st	104 (139)	108 (145)	109 (146)
2nd	107 (143)	111 (149)	114 (153)
3rd	110 (148)	114 (153)	120 (161)
4th	119 (160)	122 (164)	122 (164)
5th	123 (165)	134 (180)	141 (189)
6th	123 (165)	134 (180)	141 (189)
7th	123 (165)	134 (180)	141 (189)
8th	123 (165)	134 (180)	134 (180)
Reverse			
1st	104 (139)	108 (145)	109 (146)
2nd	107 (143)	111 (149)	114 (153)
3rd-6th	110 (148)	114 (153)	120 (161)

Powertrain

Forward/Reverse Gears	8 Forward/6 Reverse
Transmission	Direct Drive Powershift Countershaft
High Idle Speed	2,000 rpm
Low Idle Speed	
Tier 3	800 rpm
Tier 4	1,030 rpm
Air Cleaner	Dry

Hydraulic System

Type	Closed – Center
Type Circuit	Parallel
Pump Type	Variable Displacement Piston
System Pressure	24 129 kPa 3500 psi
System Flow	0-200 L/min 0-53 gal/min

Operating Specifications

Top speed forward	48.3 km/h	30.1 mph
Top speed reverse	38.1 km/h	23.7 mph
Turning Radius, Outside Front Tires	7.4 m	291.3 in
Steering Range	50° Left and Right	
Articulation Angle	20° Left and Right	
Front Wheel Lean	18° Left and Right	
Total Oscillation	32°	
Front Wheel Lean*	16°	
Total Oscillation*	32°	
Forward		
1st	4.1 km/h	2.6 mph
2nd	5.6 km/h	3.5 mph
3rd	8.2 km/h	5.1 mph
4th	11.3 km/h	7.0 mph
5th	17.7 km/h	11.0 mph
6th	24.1 km/h	15.0 mph
7th	33.2 km/h	20.6 mph
8th	48.3 km/h	30.1 mph
Reverse		
1st	3.3 km/h	2.0 mph
2nd	6.1 km/h	3.8 mph
3rd	8.9 km/h	5.5 mph
4th	14.0 km/h	8.7 mph
5th	26.2 km/h	16.3 mph
6th	38.1 km/h	23.7 mph

*Joystick – STD only

- Machine speed measured at 2,150 rpm with 14.00R24 radial tires, no slip.

120 Motor Grader Specifications

Base Machine Weight – Tier 3/Stage IIIA Equivalent

Lever/Steering Wheel Weight	13 899 kg	30,642 lb
Front Axle:	3603 kg	7,943 lb
Rear Axle:	10 296 kg	22,698 lb
Joystick Weight	14 247 kg	31,409 lb
Front Axle:	3796 kg	8,368 lb
Rear Axle:	10 451 kg	23,041 lb
Lever/Steering Wheel All-Wheel Drive (AWD) Weight	14 459 kg	31,876 lb
Front Axle:	3893 kg	8,582 lb
Rear Axle:	10 566 kg	23,294 lb
Joystick All-Wheel Drive (AWD) Weight	14 807 kg	32,644 lb
Front Axle:	4086 kg	9,008 lb
Rear Axle:	10 721 kg	23,636 lb

Typically Equipped Machine Weight

Lever/Steering Wheel Weight*	15 803 kg	34,839 lb
Front Axle:	4359 kg	9,610 lb
Rear Axle:	11 444 kg	25,229 lb
Joystick Weight*	16 246 kg	35,816 lb
Front Axle:	4608 kg	10,159 lb
Rear Axle:	11 638 kg	25,657 lb
Lever/Steering Wheel All-Wheel Drive (AWD) Weight*	16 556 kg	36,499 lb
Front Axle:	4718 kg	10,401 lb
Rear Axle:	11 838 kg	26,098 lb
Joystick All-Wheel Drive (AWD) Weight*	16 806 kg	37,051 lb
Front Axle:	4898 kg	10,798 lb
Rear Axle:	11 908 kg	26,253 lb

*Typically equipped includes 3.7 m (12') blade, 14.00R24 tires, push plate, ripper, bottom guard, operator, and full fluids.

Major Component Weights

Moldboard (with cutting edge)		
3658 mm × 610 mm × 22 mm (12 ft × 24 in × 7/8 in)	670 kg	1,474 lb
4267 mm × 610 mm × 22 mm (14 ft × 24 in × 7/8 in)	782 kg	1,720 lb
Guards		
Transmission	105 kg	231 lb
Front Fender	50 kg	110 lb
	(AWD)/	(AWD)/
	93 kg (STD)	205 lb (STD)
Blade Extension		
LH and RH – 152.4 wide, 15.9 thick cutting edge (each)	113 kg	249 lb
LH and RH – 203.2 wide, 19 thick cutting edge (each)	127 kg	280 lb
Mid-Mount Scarifier Package	834 kg	1,835 lb
Front Lift Group	680 kg	1,496 lb
Push Plate	895 kg	1,969 lb
Rear Ripper	680 kg	1,496 lb
Front Scarifier	434 kg	956 lb

Base Machine Weight – Tier 4 Final/Stage V

Lever/Steering Wheel Weight	14 272 kg	31,464 lb
Front Axle:	3564 kg	7,856 lb
Rear Axle:	10 708 kg	23,608 lb
Joystick Weight	14 522 kg	32,015 lb
Front Axle:	3744 kg	8,253 lb
Rear Axle:	10 778 kg	23,762 lb
Lever/Steering Wheel All-Wheel Drive (AWD) Weight	14 832 kg	32,699 lb
Front Axle:	3854 kg	8,496 lb
Rear Axle:	10 978 kg	24,203 lb
Joystick All-Wheel Drive (AWD) Weight	15 082 kg	33,250 lb
Front Axle:	4034 kg	8,893 lb
Rear Axle:	11 048 kg	24,357 lb

Typically Equipped Machine Weight

Lever/Steering Wheel Weight*	16 271 kg	35,871 lb
Front Axle:	4372 kg	9,637 lb
Rear Axle:	11 899 kg	26,234 lb
Joystick Weight*	16 521 kg	36,422 lb
Front Axle:	4556 kg	10,044 lb
Rear Axle:	11 965 kg	26,378 lb
Lever/Steering Wheel All-Wheel Drive (AWD) Weight*	16 831 kg	37,106 lb
Front Axle:	4666 kg	10,287 lb
Rear Axle:	12 165 kg	26,819 lb
Joystick All-Wheel Drive (AWD) Weight*	17 081 kg	37,657 lb
Front Axle:	4846 kg	10,683 lb
Rear Axle:	12 235 kg	26,973 lb

Service Refill Capacities

Fuel Tank	246 L	65 gal
Circle Drive	7 L	1.8 gal
Engine Crankcase	18 L	4.8 gal
Cooling System	52.5 L	14 gal
Hydraulic System	97 L	25.6 gal
Diesel Exhaust Fluid Tank (Tier 4 only)	11 L	2.9 gal
Transmission and Differential Tandem	60 L	15.8 gal
	60 L	15.8 gal

Tandems

Oscillation Front Up	15°
Oscillation Rear Up	22°

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Service Brakes

Type System	Dual Circuit Hydraulic	
Type Brake	Multiple Oil Disc	
Number of Brakes	4	
Number of Disc Assemblies (each)	6	
Size (outer diameter)	270 mm	10.6 in
Size (inner diameter)	189 mm	7.4 in
Lining Area Per Brake	3504 cm ²	543.1 in ²

Parking Brake

Type System	Hydraulic Actuated
Type Brake	Multiple Oil Disc, Meets ISO 3450
Slope Holding Ability	30°
Secondary Brakes	Dual Circuit Control System, Applies Two Service Brakes

Moldboard

	Standard		Option 1		Option 2	
Width	3.7 m	12 ft	3.7 m	12 ft	4.3 m	14 ft
Height	610 mm	24 in	610 mm	24 in	686 mm	27 in
End Bit	152 mm	6 in	152 mm	6 in	152 mm	6 in
Cutting Edge	152 mm	6 in	203 mm	8 in	203 mm	8 in
Arc Radius	413 mm	16.3 in	413 mm	16.3 in	413 mm	16.3 in
Throat Clearance	120 mm	4.7 in	124 mm	4.9 in	89 mm	3.5 in

Drawbar Circle Moldboard

	Standard		Top Adjust	
Range of Motion				
Lift Cylinders	2		2	
Maximum Depth of Cut	775 mm	30.5 in	775 mm	30.5 in
Maximum Lift Above Ground	410 mm	16.1 in	410 mm	16.1 in
Throat Clearance	120 mm	4.7 in	120 mm	4.7 in
Circle Center Shift Cylinder				
Center Shift Right	656 mm	25.8 in	656 mm	25.8 in
Center Shift Left	656 mm	25.8 in	656 mm	25.8 in
Moldboard Side Shift Cylinder				
Side Shift Left	660 mm	26 in	660 mm	26 in
Side Shift Right	510 mm	20.1 in	510 mm	20.1 in
Blade Tip Cylinder				
Maximum Blade Tip Forward	40°		40°	
Maximum Blade Tip Backward	5°		5°	
Circle Drive	360° of Blade Rotation			
Link Bar	7 Positions to adjust the drawbar circle moldboard range of motion			
Drawbar Shoes	4 with replaceable wear strips			

Circle

Section	Rolled Ring Forging
Number of Teeth	64
Rotation	360°

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Blades – Tier 3/Stage IIIA Equivalent

Lever/Steering Wheel Weight

Blade Pull Adv. Base Gross Vehicle Weight (GVW)	9266 kg	20,429 lb
Blade Down Force Adv. Base GVW	6311 kg	13,914 lb
Blade Pull Adv. Typically Equipped GVW	10 299 kg	22,706 lb
Blade Down Force Adv. Typically Equipped GVW	7636 kg	16,834 lb
Blade Pull Adv. Max GVW	12 402 kg	27,341 lb
Blade Down Force Adv. Max GVW	10 895 kg	24,019 lb

Lever/Steering Wheel All-Wheel Drive (AWD) Weight

Blade Pull Adv. Base GVW	13 013 kg	28,689 lb
Blade Down Force Adv. Base GVW	6779 kg	14,945 lb
Blade Pull Adv. Typically Equipped GVW	14 900 kg	32,849 lb
Blade Down Force Adv. Typically Equipped GVW	8215 kg	18,112 lb
Blade Pull Adv. Max GVW	18 000 kg	39,683 lb
Blade Down Force Adv. Max GVW	10 831 kg	23,878 lb

Joystick Weight

Blade Pull Adv. Base GVW	9406 kg	20,737 lb
Blade Down Force Adv. Base GVW	6609 kg	14,571 lb
Blade Pull Adv. Typically Equipped GVW	10 474 kg	23,092 lb
Blade Down Force Adv. Typically Equipped GVW	8024 kg	17,689 lb
Blade Pull Adv. Max GVW	12 402 kg	27,341 lb
Blade Down Force Adv. Max GVW	10 895 kg	24,019 lb

Joystick All-Wheel Drive (AWD) Weight

Blade Pull Adv. Base GVW	13 326 kg	29,379 lb
Blade Down Force Adv. Base GVW	7114 kg	15,684 lb
Blade Pull Adv. Typically Equipped GVW	15 125 kg	33,345 lb
Blade Down Force Adv. Typically Equipped GVW	8529 kg	18,803 lb
Blade Pull Adv. Max GVW	18 000 kg	39,683 lb
Blade Down Force Adv. Max GVW	10 831 kg	23,878 lb

Blades – Tier 4 Final/Stage V

Lever/Steering Wheel Weight

Blade Pull Adv. Base GVW	9638 kg	21,247 lb
Blade Down Force Adv. Base GVW	6242 kg	13,762 lb
Blade Pull Adv. Typically Equipped GVW	10 710 kg	23,610 lb
Blade Down Force Adv. Typically Equipped GVW	7657 kg	16,881 lb
Blade Pull Adv. Max GVW	12 402 kg	27,341 lb
Blade Down Force Adv. Max GVW	10 895 kg	24,019 lb

Lever/Steering Wheel All-Wheel Drive (AWD) Weight

Blade Pull Adv. Base GVW	13 349 kg	29,429 lb
Blade Down Force Adv. Base GVW	6710 kg	14,794 lb
Blade Pull Adv. Typically Equipped GVW	15 148 kg	33,395 lb
Blade Down Force Adv. Typically Equipped GVW	8125 kg	17,912 lb
Blade Pull Adv. Max GVW	18 000 kg	39,683 lb
Blade Down Force Adv. Max GVW	10 831 kg	23,878 lb

Joystick Weight

Blade Pull Adv. Base GVW	9701 kg	21,386 lb
Blade Down Force Adv. Base GVW	6519 kg	14,372 lb
Blade Pull Adv. Typically Equipped GVW	10 769 kg	23,740 lb
Blade Down Force Adv. Typically Equipped GVW	7933 kg	17,490 lb
Blade Pull Adv. Max GVW	12 402 kg	27,341 lb
Blade Down Force Adv. Max GVW	10 895 kg	24,019 lb

Joystick All-Wheel Drive (AWD) Weight

Blade Pull Adv. Base GVW	13 574 kg	29,925 lb
Blade Down Force Adv. Base GVW	7024 kg	15,485 lb
Blade Pull Adv. Typically Equipped GVW	15 373 kg	33,891 lb
Blade Down Force Adv. Typically Equipped GVW	8438 kg	18,603 lb
Blade Pull Adv. Max GVW	18 000 kg	39,683 lb
Blade Down Force Adv. Max GVW	10 831 kg	23,878 lb

120 Motor Grader Specifications

Maximum Shoulder Reach Outside of Tires

Blade	3.7 m (12 ft)		4.3 m (14 ft)	
Right	1905 mm	75 in	2210 mm	87 in
Left	1742 mm	68.6 in	2180 mm	85.8 in

- An additional 300 mm (11.8 in) of reach can be achieved to the right or left by changing the side shift mounting bracket on the 4.3 m (14 ft) blade.

Standards

ROPS	ISO 3471:2008
FOPS	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering	ISO 5010:2007

Sound Standards

Sound	ISO 6395:2008 ISO 6396:2008
Spectator Sound Level – Non-AWD	105 dB(A)
Spectator Sound Level – AWD	106 dB(A)
Operator Sound Level – Joystick	71 dB(A)
Operator Sound Level – Lever/ Steering Wheel	75 dB(A)

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed. The machine was equipped with sound suppression system.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained. The machine was equipped with sound suppression system.

Tier 3/Stage IIIA/India Bharat Stage III, and India CEV Stage V, with LVR tandem for India/APD

Sound	ISO 6395:2008 ISO 6396:2008
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- The dynamic spectator sound power level is 107 dB(A). Measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed. The machine was not equipped with sound suppression.
- The dynamic operator sound pressure level is 75 dB(A). Measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained. The machine was not equipped with sound suppression.

Ripper

Ripping Depth Maximum	288 mm	11.2 in
Ripper Shank Holder	5	
Ripper Shank Holder Spacing	533 mm	20.8 in
Penetration Force	5119 kg	11,287 lb
Pryout Force	2029 kg	4,474 lb
Machine Length Increase, Beam Raised	900 mm	35.1 in

Mid Mount Scarifier

Front, V-Type: Working Width	1205 mm	47.4 in
Number of Shanks	11	
Shank Spacing	116 mm	4.5 in
Scarifying Width	1031 mm	40.2 in

Electrical

Starting System Type	Direct Electric
Heavy Duty Battery	
CCA at -18°	1,125 amp
Volts	12V
Quantity	2
Extreme Duty Battery	
CCA at -18°	1,400 amp
Volts	12V
Quantity	2
Standard Alternator	145 amps at 24V
Heavy Duty Alternator	150 amps at 24V

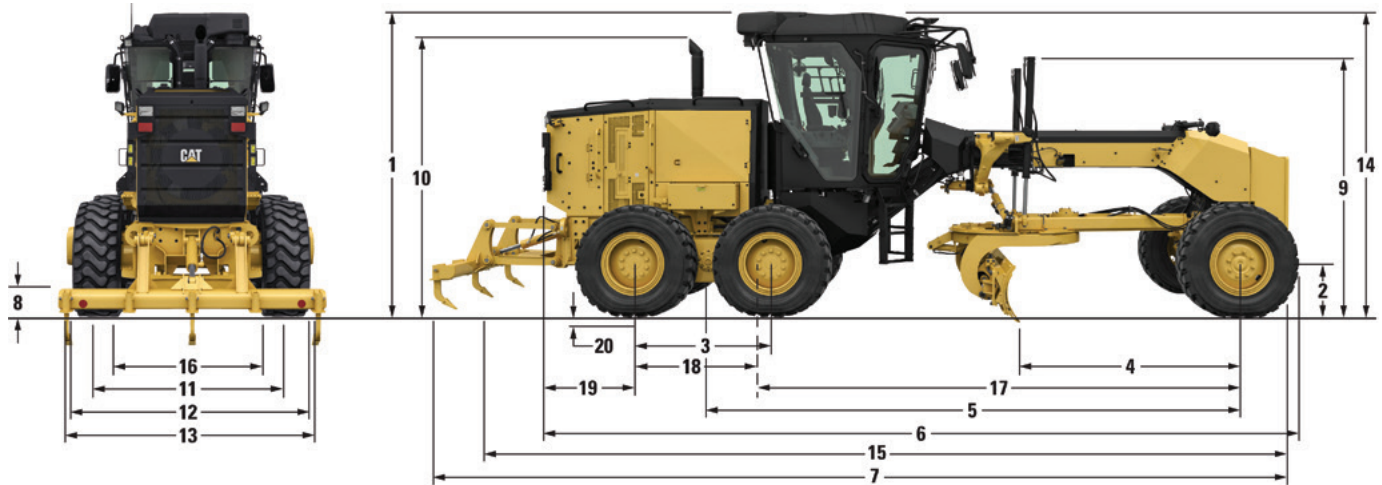
Electrical – Tier 3/Stage IIIA Equivalent Lever

Starting System Type	Direct Electric
Standard Duty Battery	Only offered on Levers
CCA at -18°	900 amp
Volts	12V
Quantity	2
Heavy Duty Battery	
CCA at -18°	1,125 amp
Volts	12V
Quantity	2
Extreme Duty Battery	
CCA at -18°	1,400 amp
Volts	12V
Quantity	2
Standard Alternator – Levers	115 amps at 24V
Standard Alternator – Joystick	145 amps at 24V
Heavy Duty Alternator	150 amps at 24V

120 Motor Grader Specifications

Dimensions

All dimensions are approximate.



1 Height – Top of Cab	3465 mm	136.4 in
2 Height		
Front Axle Center (Non AWD)	590 mm	23.2 in
Front Axle Center (AWD)	596 mm	23.5 in
3 Length – Between Tandem Axles	1510 mm	59.5 in
4 Length		
Front Axle to Moldboard (Non AWD)	2551 mm	100.4 in
Length – Front Axle to Moldboard (AWD)	2516 mm	99 in
5 Length		
Front Axle to Mid Tandem (Non AWD)	5945 mm	234 in
Front Awd Axle to Mid Tandem (AWD)	5910 mm	232.7 in
6 Length		
Front Tire to Rear of Machine (Non AWD)	8534 mm	336 in
Front Tire to Rear of Machine (AWD)	8499 mm	334.6 in
7 Length – Push Plate to Ripper	9838 mm	387 in
8 Ground Clearance at Rear Axle	349 mm	13.7 in

9 Height to Top of Cylinders	2895 mm	114 in
10 Height to Exhaust Stack	3185 mm	125.4 in
Height to Exhaust Stack (Tier 3)	2924 mm	115 in
11 Width – Tire Center Lines	2070 mm	81.5 in
12 Width – Outside Rear Tires	2491 mm	98 in
13 Width		
Outside Front Tires (Non AWD)	2495 mm	98.2 in
Outside Front Tires (AWD)	2638 mm	103.9 in
14 Maximum Height – with Attachments	3440 mm	135.4 in
15 Length – Push Plate to Raised Ripper	9583 mm	377 in
16 Width – Inside Rear Tires	1649 mm	64.9 in
17 Length		
Front Axle to Articulation Hitch (Non AWD)	5284 mm	208 in
Front Axle to Articulation Hitch (AWD)	5249 mm	206.7 in
18 Length – Rear Axle to Articulation Hitch	660 mm	26 in
19 Length – Rear Axle to Rear of Frame	1726 mm	68 in
20 Height – Tire Deflection at Performance Weight	45 mm	1.8 in

Optional Tire Arrangements

Rim Size	Wheel Group	Tires
9 × 24	Single-Piece	13.00-24
9 × 24	Single-Piece	14.00-24
10 × 24	Multi-Piece	13.00-24
10 × 24	Multi-Piece	14.00-24
10 × 24	Multi-Piece	14.00-24
13 × 25	Single-Piece	17.5R25
14 × 25	Multi-Piece	14.00R24
14 × 25	Multi-Piece	17.5R25
14 × 25	Multi-Piece	17.5-25

Note: Consult your dealer for individual tire width, size and brand.

120 Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
POWER TRAIN		
Cat C7.1 engine	✓	
Eco mode	✓	
Extreme duty starter		✓
50° C (122° F) ambient capacity	✓	
43° C (109° F) ambient capacity – all wheel drive	✓	
All-Wheel Drive (AWD)		✓
Differential lock/unlock	✓	
Engine idle shutdown timer	✓	
Hydraulic demand fan	✓	
Reversing fan		✓
Biodiesel capability up to B30	✓	
Transmission, autoshift*	✓	
*Optional on lever machines.		
MOLDBOARD		
Standard drawbar circle moldboard	✓	
Circle drive slip clutch	✓	
Top adjust drawbar circle moldboard		✓
Circle saver		✓
ELECTRICAL		
Sealed alternator	✓	
Reversing lights	✓	
Breaker panel	✓	
900 CCA standard duty batteries*	✓	
1,125 CCA heavy duty batteries	✓	
1,400 CCA extreme duty batteries		✓
Electric starter	✓	

*Available on T3 Lever machines only (1,125 and 1,400 CCA are optional).

(continued on next page)

120 Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Lever/Steering Wheel		Joystick	
	Standard	Optional	Standard	Optional
CAB				
Vinyl seat	✓		N/A	N/A
ROPS/FOPS	✓		✓	
Air suspension adjustable seat		✓	✓	
Leather heated/cooled seat		✓		✓
Seat belt, retractable	✓		✓	
Seat belt, indication		✓	✓	
203 mm (8 in) touchscreen monitor		✓	✓	
254 mm (10 in) hybrid information display	✓		N/A	N/A
Canopy cab (T3 lever only)		✓	N/A	N/A
Heating, ventilation, and air conditioning (HVAC) system		✓	✓	
Defrost fans		✓	✓	
Halogen lighting		✓		✓
Cup and bottle holders	✓		✓	
Implement lockout		✓	✓	
Adjustable control console	✓		✓	
Interior lights (dome lamp)	✓		✓	
LED lighting		✓		✓
Entertainment Radio Ready		✓	✓	
Coat hook	✓		✓	
USB/Auxiliary Radio		✓		✓
Joystick controls		N/A	✓	
Communication radio mounting		✓		✓
Steering wheel and lever controls	✓		N/A	
Heated mirrors		✓		✓
Electric throttle control	✓		✓	
Front windshield wiper	✓		✓	
Front windshield wiper (lower)		✓	N/A	N/A
Rear wiper		✓		✓
Rear window screen		✓		✓
Cab storage	✓		✓	
Side window wipers	N/A	N/A		✓
Slider side window		✓		✓

(continued on next page)

120 Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional
SAFETY AND SECURITY		
Parking brake	✓	
Back up alarm	✓	
Ground level fuel fill*		✓
Signaling/warning horn	✓	
Warning beacon		✓
Rearview mirror	✓	
Rearview camera		✓
Hydraulic brakes	✓	
Secondary steering system	✓	
Side view mirrors	✓	
Strategically placed walkways and grab rails	✓	
*Standard for North America and Europe.		
SERVICE AND MAINTENANCE		
Ground level DEF fill – Tier 4 Final/Stage V	✓	
Grouped location for engine oil and fuel filters	✓	
Extended Life Coolant	✓	
CAT TECHNOLOGY		
Cat Grade with Digital Blade Slope Meter		✓
Cat Grade with Cross Slope Indicate		✓
Cat Grade with Cross Slope		✓
Cat Grade Attachment Ready Option (ARO)		✓
Stable blade		✓
Product Link™*	✓	
Remote services		✓
*Optional on Lever models.		
GUARDS		
Front fenders*		✓
Rear fenders		✓
Front axle guard for all-wheel drive		✓
Transmission		✓
Cover, under cab platform		✓
*Not available for lever and steering wheel tandem machines.		
ATTACHMENTS		
Push block		✓
Ripper		✓
Scarifier		✓
Mid mount scarifier		✓
Front lift group		✓
Front blade		✓

120 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® C7.1 engine is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards or Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Cat U.S. EPA Tier 4 Final and EU Stage V 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
- Cat engines meeting Brazil MAR-1, equivalent to U.S. EPA Tier 3 and EU Stage IIIA, are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
 - ✓ 100% 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).

**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 (Global Warming Potential = 1430). The system contains 1.6 kg (3.5 lb) of refrigerant which has a CO₂ equivalent of 2.288 metric tonnes (2.522 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

Spectator Sound Level – Non-AWD (ISO 6395:2008)	105 dB(A)
Spectator Sound Level – AWD (ISO 6395:2008)	106 dB(A)
Operator Sound Level – Joystick (ISO 6396:2008)	71 dB(A)
Operator Sound Level – Lever/Steering Wheel (ISO 6396:2008)	75 dB(A)

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed. The machine was equipped with sound suppression system.

- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained. The machine was equipped with sound suppression system.

Tier 3/Stage IIIA/India Bharat Stage III, and India CEV Stage V, with LVR tandem for India/APD:

Spectator Sound Level (ISO 6395:2008)	107 dB(A)
Operator Sound Level (ISO 6396:2008)	75 dB(A)

- The dynamic spectator sound power level measurements are performed according to the dynamic test procedures that are specified in ISO 6395:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed. The machine was not equipped with sound suppression system.
- The dynamic operator sound pressure level measurements are performed according to the dynamic test procedures that are specified in ISO 6396:2008. The measurements were conducted at 70% of the maximum engine cooling fan speed, with the cab doors and the cab windows closed. The cab was properly installed and maintained. The machine was not equipped with sound suppression system.

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
 - Engine Idle Shutdown Timer reduces fuel burn, greenhouse gas emissions and unnecessary idle time by shutting down the machine after a pre-set idling period
 - Cat Grade helps reduce fuel burn and greenhouse gas emissions by enabling you to achieve grade faster and more accurately by automating blade actions
 - Cut maintenance costs up to 15% with extended service intervals next generation filters
 - Improve jobsite efficiency with lower operating costs with Product Link™ and VisionLink® insights



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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AEXQ2482-05 (04-2024)
Replaces AEXQ2482-04
Build Number 14B
(Afr-ME, Aus-NZ, Jpn,
CIS, Colombia, Eur,
S Am, N Am, Turkey)

