



6060 Electric

Hydraulic Shovel

Technical Specifications

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

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6060 Electric Hydraulic Shovel Specifications

Electric Motors

Type	2 × Squirrel cage induction motor	
Output (nominal rated)	2 × 1000 kW	
Voltage	6.0 kV ± 10%	
	6.6 kV ± 10%	
	7.2 kV ± 10%	
Rated Current I _N	6.0 kV	235 A
	6.6 kV	215 A
	7.2 kV	195 A
Frequency	50 Hz/60 Hz	
Speed	1,500 min ⁻¹ /50Hz; 1,800 min ⁻¹ /60Hz	
Maximum Starting Current	6.0 kV	480 A
	6.6 kV	545 A
	7.2 kV	482 A

Low Voltage Electrical System

Control System Voltage	24 V	
Batteries in Series Installation	2 × 210 Ah – 12 V each 210 Ah – 24 V	
Cab Heating Voltage	230 V	
Power Take Off	1 × single phase (10 A, 230 V, 2.23 kW)	
	1 × three phase (4 A, 400 V, 2.8 kW)	

Operating Weights

6060 Electric with TriPower™ Face Shovel Attachment (FS)		
Standard Track Pads	1400 mm	4 ft 7 in
Operating Weight*	580 000 kg	1,278,430 lb
Ground Pressure	25.7 N/cm ²	37.3 psi
Payload	61 000 kg	134,482 lb
6060 Electric Backhoe Attachment (BH)		
Standard Track Pads	1400 mm	4 ft 7 in
Operating Weight*	581 700 kg	1,282,430 lb
Ground Pressure	25.8 N/cm ²	37.4 psi
Bucket Payload	65 000 kg	143,300 lb

* Operating weights include: base machine, front attachment, standard track pads, standard rock bucket, and lubricants.

Service Refill Capacities

Hydraulic Oil Tank Capacity	7100 L	1,876 gal
Total Volume of Hydraulic Oil	9400 L	2,483 gal
Pump Transmission Gearbox including Cooling Circuit	2 × 103 L	2 × 27.2 gal
Pump Pre-Chambers at Pump Transmission Gearbox	2 × 14 L	2 × 3.7 gal
Swing Gearbox	4 × 38 L	4 × 10.0 gal
Travel Gearbox Planetary	2 × 120 L	2 × 31.7 gal
Travel Gearbox Spur Gear	2 × 19 L	2 × 5.0 gal
Travel Gearbox Brake Chambers	4 × 0.5 L	2 × .13 gal
Grease Tank Capacity	710 L	188 gal

Hydraulic System

Main Pumps	8x variable flow axial piston pumps	
Maximum Oil Flow	8 × 650 L/min	8 × 172 gal/min
Maximum Pressure, Attachment	320 bar	4,640 psi
Maximum Pressure, Travel	360 bar	5,220 psi
Swing Pumps	4 reversible swash plate pumps	
Maximum Oil Flow	4 × 352 L/min	4 × 93 gal/min
Maximum Pressure	350 bar	5,076 psi

Hydraulic Oil Cooling

Oil Flow of Cooling Pumps	4 × 488 L/min	4 × 129 gal/min
Number of Fans	4	
Diameter of Fans	4 × 1170 mm 4 × 46 in	
Fan Speed	Thermostatically controlled	
Cooling System	Fully independent	

Swing System

Swing Drives	4 compact planetary transmissions with axial piston motors	
Parking Brakes	Wet multiple-disc brake, spring-loaded/hydraulically released	
Maximum Swing Speed	3.8 rpm	
Swing Ring	Triple-race roller bearing with sealed internal gearing	
Swing Circuit	Closed-loop with torque control	

6060 Electric Hydraulic Shovel Specifications

Undercarriage

Travel Speed (2 stages)		
1st Stage – Maximum	1.1 km/h	0.68 mph
2nd Stage – Maximum	1.6 km/h	0.99 mph
Maximum Tractive Force	2942 kN	661,160 lbf
Gradeability of Travel Drives	21.2°/38.8%	
Track Pads (each side)	42	
Bottom Rollers (each side)	7	
Support Rollers (each side)	2 plus a skid plate in between	
Travel Drives (each side)	1 planetary transmission with 2 two-stage axial piston motors	
Parking Brakes	Wet multiple disc brake, spring loaded/hydraulically released	

Operator Environment

Operator's Eye Level – Approximately	7.6 m	24 ft 11 in
Internal Dimensions of Cab		
Length	2230 mm	7 ft 4 in
Width	1625 mm	5 ft 4 in
Height	2070 mm	6 ft 9 in
Operator Protective Guard (Top Guard)	ISO 10262:1998 Level II	
Dynamic Spectator Sound Power Level (L _{WA}) ISO 6395:2008	124 dB(A)	
Dynamic Operator Sound Pressure Level (L _{PA}), HVAC med ISO 6395:2008	73 dB(A)	

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 4.1 kg (9.03 lb) of refrigerant, which has a CO₂ equivalent of 5863 t (6,463 U.S. tons) per engine.

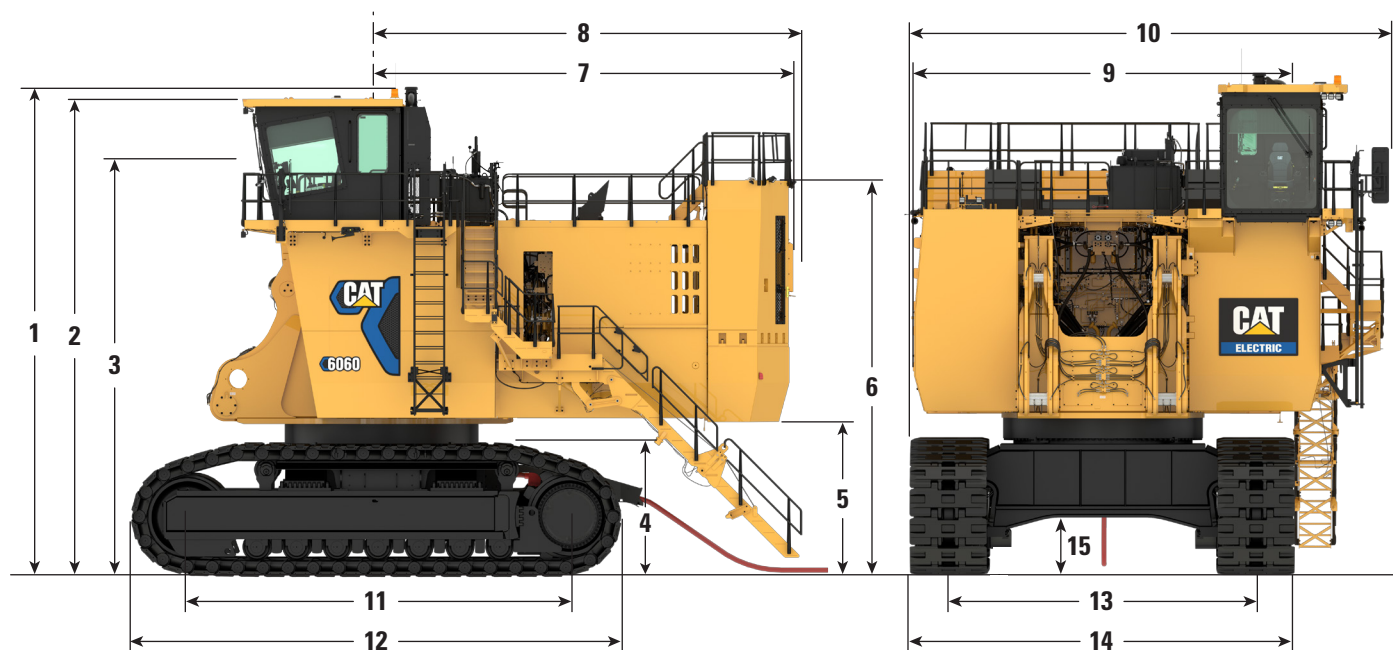
Optimal Pass Match with Cat Mining Trucks

Type	Cat 789	Cat 793	Cat 794 AC	Cat 795 – 796 AC/798 AC 798AC
Passes	3	4	5	6

6060 Electric Hydraulic Shovel Specifications

Dimensions

All dimensions are approximate.

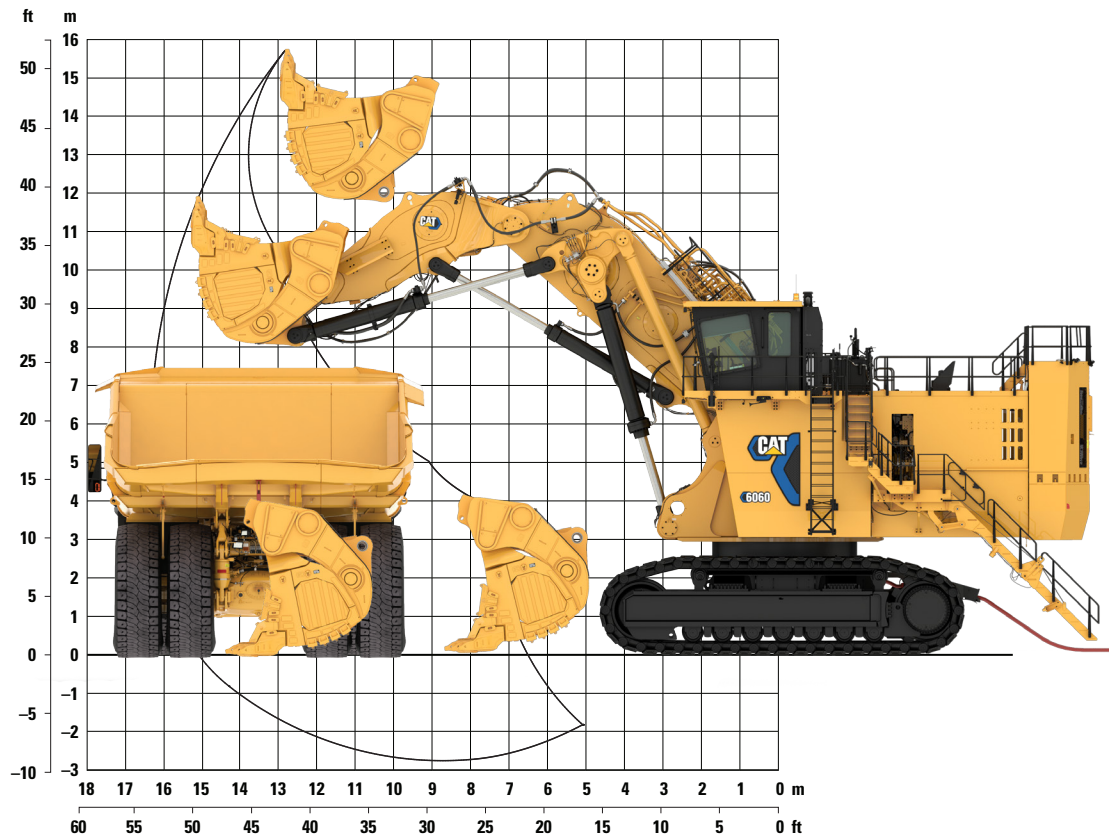


1 Height Overall	9110 mm	29 ft 11 in
2 Height to Top Guard	8860 mm	29 ft 1 in
3 Operator Eye Level	7850 mm	25 ft 9 in
4 Height of Tracks	2490 mm	8 ft 2 in
5 Clearance Under Counterweight	2810 mm	9 ft 3 in
6 Height to Top of Counterweight	7300 mm	23 ft 11 in
7 Tail Overhang	7700 mm	25 ft 3 in
8 Tail Swing Radius	7930 mm	26 ft 0 in
9 Width of Counterweight	7000 mm	23 ft 0 in
10 Width Overall @ 1400 mm (4 ft 7 in) standard pads	8700 mm	28 ft 7 in
11 Length from Sprocket Center to Idler Center	7180 mm	23 ft 7 in
12 Crawler Length	9220 mm	30 ft 3 in
13 Track Gauge	5600 mm	18 ft 4 in
14 Width of Undercarriage	7030 mm	23 ft 1 in
15 Ground Clearance Under Carbody Frame	950 mm	3 ft 1 in

6060 Electric Hydraulic Shovel Specifications

Working Range – TriPower Face Shovel Attachment (FS)

All dimensions are approximate.



Boom	8.0 m	26 ft 2 in	Working Range		
Stick	5.1 m	16 ft 9 in	Maximum Digging Height	15.6 m	51 ft 2 in
Digging Forces (ISO)			Maximum Digging Reach	16.5 m	54 ft 2 in
Maximum Crowd Force	2200 kN	494,410 lbf	Maximum Digging Depth	2.8 m	9 ft 2 in
Maximum Crowd Force at Ground Level	2115 kN	475,300 lbf	Maximum Dumping Height	11.6 m	38 ft 1 in
Maximum Breakout Force	1730 kN	388,780 lbf	Crowd Distance on Level	5.5 m	18 ft 1 in

Face Shovel Options

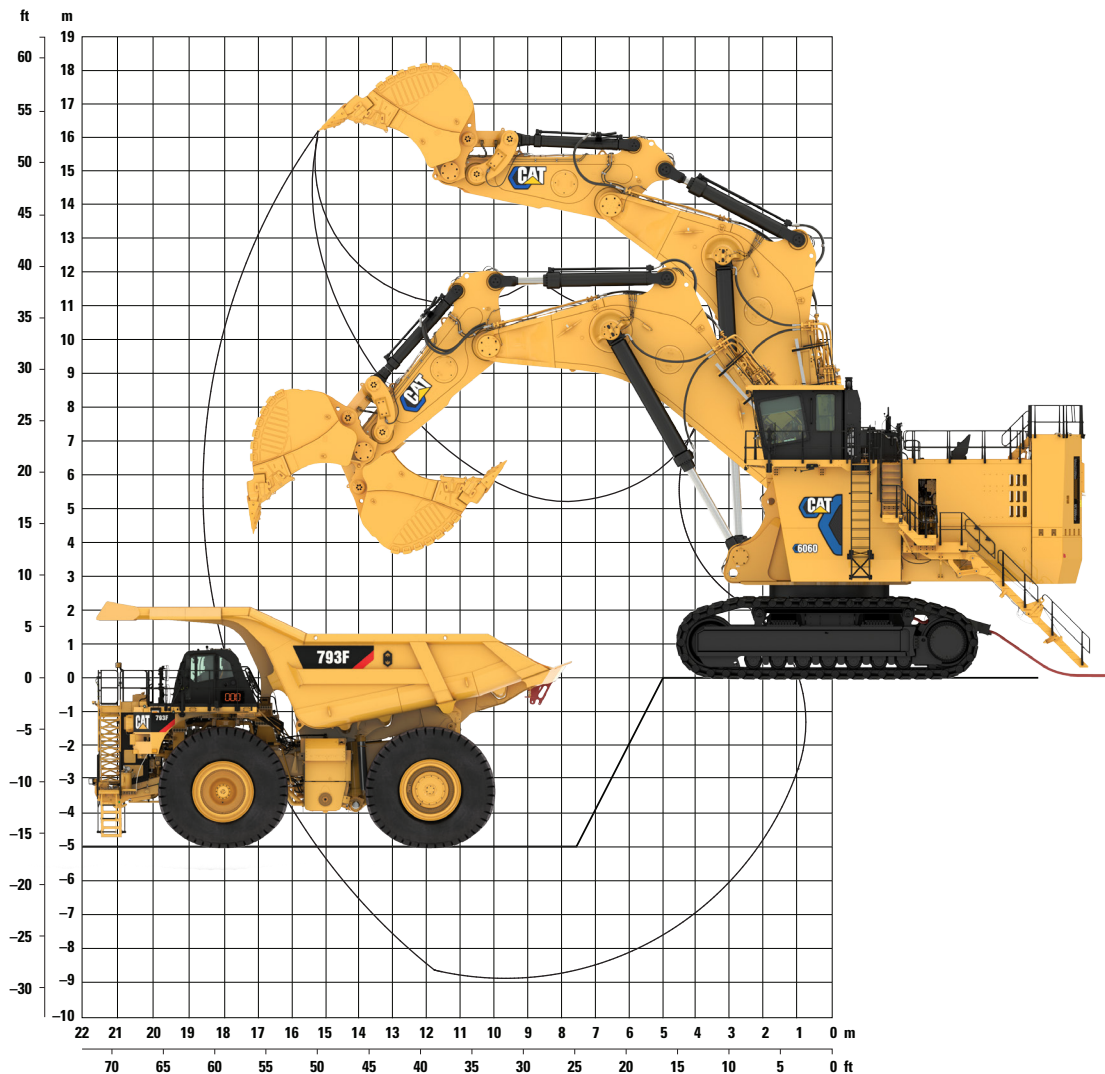
Bucket Classification	Capacity Heaped 2:1 (ISO 7546)		Total Width		Opening Width		Ground Engaging Tools (G.E.T.)	Teeth	Weight with Penetration Tips		Rated Material Density (loose)	
	m ³	yd ³	mm	in	mm	ft/in	System	Number	kg	lb	t/m ³	lb/yd ³
Heavy Rock	26.0	34.0	4766	187.6	2600	8'6"	CL1-W950	6	44 990	99,186	2.4	4,050
	28.0	36.6	4766	187.6	2600	8'6"	CL1-W950	6	45 896	101,183	2.2	3,710
	31.0	40.5	5562	219.0	2600	8'6"	CL1-W950	6	50 126	110,509	2.0	3,370
Standard Rock	34.0	44.5	5562	219.0	2600	8'6"	CL1-W950	6	50 301	110,895	1.8	3,030

Other bucket capacities and wear package options are available on request.

6060 Electric Hydraulic Shovel Specifications

Working Range – Backhoe Attachment (BH)

All dimensions are approximate.



Boom	10.5 m	34 ft 5 in	Working Range	
Stick	5.0 m	16 ft 5 in		
Digging Forces (ISO)				
Maximum Tearout Force	1316 kN	295,740 lbf	Maximum Digging Height	16.1 m 52 ft 10 in
Maximum Breakout Force	1223 kN	274,840 lbf	Maximum Digging Reach	19.0 m 62 ft 4 in
			Maximum Digging Depth	8.9 m 29 ft 2 in

Backhoe Options													
Bucket Classification	Capacity Heaped 1:1 (ISO 7451)		Total Outside Width		Inner Width		Ground Engaging Tools (G.E.T.)	Tips	Wear Package Type	Weight with Penetration Tips		Nominal Material Density at 100% Fill Factor	
	m³	yd³	mm	in	mm	in	System	Number		kg	lb	t/m³	lb/yd³
Heavy Rock	31.0	40.5	4761	187.4	4300	169.2	CL1-W900R	6	Extreme Duty – Abrasion	36 958	81,478	2.0	3,371
Standard Rock	36.0	47.0	4761	187.4	4300	169.2	CL1-W900R	6	Standard Duty – Impact	35 013	77,190	1.8	3,034
Light Rock	38.0	50.0	4761	187.4	4300	169.2	CL1-W900R	6	Light Duty – Impact	33 911	74,761	1.65	2,781

Other bucket capacities and wear package options are available on request.

6060 Electric Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
HIGH VOLTAGE ELECTRICAL SYSTEM			LOW VOLTAGE ELECTRICAL SYSTEM		
Electric Motor (6.6 kV – 50 Hz)		✓	2 batteries	✓	
Electric Motor (6.0 kV – 50 Hz)		✓	Lockable 24 V system isolator switch	✓	
Electric Motor (7.2 kV – 60 Hz)		✓	Low voltage switch cabinet:	✓	
Pressurized high voltage switch cabinet:	✓		– Motor Protection Relay (MPR)		
– Load break switch			– 24 V and 400 V power supply		
– Main, motor, and transformer fuses			– Active power converter		
– Voltage and current transformers			– Phase sequence indication		
– Vacuum contactors for motor control			– Circuit breakers		
– Ground fault detection			13 LED high-brightness working flood lights	✓	
– Auxiliary transformer			19 LED service lights	✓	
Power factor correction	✓		2 acoustic travel alarms – forward and reverse (power module, oil cooler module)	✓	
HYDRAULICS			2 electric horns (1 cab module, 1 oil cooler module)	✓	
Hydraulic Optimization	✓		UNDERCARRIAGE		
Cat® Hydraulic Hose Assemblies	✓		HD tracks with cast double-grouser track pads	✓	
Cat pump managing system with:	✓		1400 mm (4 ft 7 in) wide track pads	✓	
– Electronic load limit control			1600 mm (5 ft 3 in) wide track pads		
– Flow on demand			HD fixed axle carrier and load rollers	✓	
– Automatic zero flow regulation			HD fixed axle idlers	✓	
– Automatic oil flow reduction			Automatic hydraulic retarder valve	✓	
– Reduced oil flow at high hydraulic oil temperature			Hinged travel motor covers	✓	
Pressure cut-off for main pumps	✓		Hardened running surfaces of sprockets, idlers, rollers, pad links, teeth contact areas	✓	
Cooling of pump transmission gear oil	✓		Fully hydraulic self-adjusting track tensioning system with piston accumulators	✓	
Closed loop swing circuit	✓		Slip ring in undercarriage	✓	
Pressure testing points	✓		Cable guide with junction box at undercarriage	✓	
Full-flow high-pressure filters (100 µm), main pumps	✓		AUTOMATIC LUBRICATION SYSTEM		
High pressure filters (200 µm), closed swing circuit	✓		Rectangular grease container (fill via service arm)	✓	
Full-flow filters (10 µm), return circuit	✓		Lubricated pinion in swing ring	✓	
Pressure filters swing charge circuit (40 µm)	✓		Grease filters (200 µm)	✓	
Pressure filters pilot circuit (6 µm)	✓				
Transmission oil filters (40 µm)	✓				
Boom float valve (FS and BH)	✓				
Stick float valve (FS only)	✓				

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6060 Electric Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			FRONT ATTACHMENT		
Dual hydraulically driven HVAC system	✓		TriPower Face Shovel kinematics:		✓
In-floor window with removable grate	✓		– Horizontal automatic constant-angle bucket guidance		
Pneumatically cushioned and multi-adjustable comfort seat with:	✓		– Vertical automatic constant-angle bucket guidance		
– Heating and cooling			– Automatic roll-back limiter to prevent material spillage		
– Lumbar support			– Kinematic assistance to hydraulic forces		
– 2-point safety belt			– Constant boom momentum throughout the whole lift arc		
– Head and arm rests			– Crowd force assistance		
– Safety switch for automatic motion shutdown			– Guards for shovel cylinders at FS stick		
Independently adjustable seat consoles with integrated joysticks	✓		Backhoe attachment		✓
Electronic-Hydraulic Servo Control	✓		Service access holes from both sides in boom and stick (FS and BH)	✓	
Elevated full-size trainer seat with 2-point safety belt and laptop desk	✓		Boom and stick thermally stress relieved after welding	✓	
Additional fold-away auxiliary seat with 2-point safety belt	✓		Catwalks with rails at boom (FS and BH)	✓	
Three cup holders	✓		Wear Package (as per bucket selection)	✓	
USB Charging Port	✓		COLD WEATHER OPTIONS		
FM/AM radio with USB and AUX input	✓		Cold Weather Package:		✓
Parallel intermittent wiper/washer	✓		– Hydraulic oil heater with thermostat		
Roller blinds	✓		– Hydraulic oil cooler bypass valves		
Monitoring system with 254 mm (10 in) color touchscreen	✓		– Auxiliary preheating system for cab		
45° stairway from engine bay to operator cab	✓		– Recommended for temperatures below –10°C (14°F)		
Powered 45° access stairway	✓				
Heated mirror on left-hand side	✓				
Cat Vision 360 with 254 mm (10 in) HD color technology display	✓				
Level indicators for length and crosswise inclination	✓				
Document storage	✓				

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6060 Electric Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
SERVICE AND MAINTENANCE			SAFETY AND SECURITY		
Hydraulic oil exchange interval – 10,000 hours	✓		Emergency stop switches: 2 in cab, 5 in power module, 1 at ground-level service station, 1 pull rope accessible from ground level	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓		Operator Protective Guard (Top Guard)	✓	
Retractable ground-level service station with quick couplings for:	✓		All-round safety glass	✓	
– Pump transmission gear oil – left/right engines			Emergency egress ladder	✓	
– Hydraulic oil			Operator presence switch	✓	
– Grease			MISCELLANEOUS		
– Swing transmission gear oil			ISO or ANSI decals	✓	
Cat battery charging connector	✓				
Dirt wiper at swivel	✓				
Cat Electronic Technician service port	✓				
Indicator lights	✓				
CAT TECHNOLOGY					
Cat Payload	✓				
Cat Vision 360	✓				
Operator Assist: Enhanced Motion Control	✓				
Cat Product Link™ Elite	✓				
Cat Product Link Elite Dual Mode (Cellular and Satellite)		✓			
Cat Minestar™ Solutions Ready	✓				

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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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