



6030 AC

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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6030 AC Hydraulic Shovel Specifications

Electric Motor

Type	Squirrel cage induction motor
Output	1000 kW
Voltage	6.6 kV \pm 10% (other upon request)
Rated Current I_N	110 A (at 6.6 kV)
Frequency	50 Hz
Speed	1,500 min ⁻¹
Starting Current	350% of I_N (197% of I_N optional)

Low Voltage Electrical System

System Voltage	24 V
Batteries in Series/Parallel Installation	2 \times 210 Ah – 12 V each 210 Ah – 24 V

Operating Weights

6030 AC with TriPower™ Face Shovel Attachment (FS)		
Standard Track Pads	1000 mm	3 ft 3 in
Operating Weight*	294 300 kg	648,810 lb
Ground Pressure	21.9 N/cm ²	31.7 psi

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

Service Refill Capacities

Hydraulic Oil Tank Capacity	2820 L	745 gal
Total Volume of Hydraulic Oil	3300 L	872 gal
Pump Transmission Gearbox including Cooling Circuit	95 L	25 gal
Swing Gearbox	2 \times 38 L	2 \times 10 gal
Travel Gearbox	2 \times 94 L	2 \times 24.8 gal
Grease Tank Capacity	450 L	119 gal

Hydraulic System

Main Pumps	4 \times variable swash plate pumps	
Maximum Oil Flow	4 \times 543 L/min	4 \times 143 gal/min
Maximum Pressure, Attachment	310 bar	4,495 psi
Maximum Pressure, Travel	360 bar	5,220 psi
Swing Pumps	2 \times reversible swash plate double pumps	
Maximum Oil Flow	2 \times 426 L/min	2 \times 113 gal/min
Maximum Pressure	350 bar	5,075 psi

Hydraulic Oil Cooling

Oil Flow of Cooling Pumps	2 \times 459 L/min	2 \times 121 gal/min
Number of Fans	2	
Diameter of Fans	1220 mm	48 in
Fan Speed	Thermostatically controlled	
Cooling System	Fully independent	

Swing System

Swing Drives	2 compact planetary transmissions with axial piston motors
Parking Brakes	Wet multiple-disc brake, spring-loaded/hydraulically released
Maximum Swing Speed	5.0 rpm
Swing Ring	Triple-race roller bearing with sealed internal gearing
Swing Circuit	Closed-loop with torque control

6030 AC Hydraulic Shovel Specifications

Undercarriage

Travel Speed (2 stages)		
1st Stage – Maximum	1.4 km/h	0.9 mph
2nd Stage – Maximum	2.7 km/h	1.7 mph
Maximum Tractive Force	1637 kN	367,880 lbf
Gradeability of Travel Drives	50% approximate	
Track Pads (each side)	44	
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	6.5 m	21 ft 4 in
Internal Dimensions of Cab		
Length	2200 mm	7 ft 3 in
Width	1600 mm	5 ft 3 in
Height	2150 mm	7 ft 1 in
Operator Protective Guard (Top Guard)	ISO 10262:1998 Level II	

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.8 kg (6.2 lb) of refrigerant, which has a CO₂ equivalent of 4.004 t (4.4136 U.S. tons) per engine.

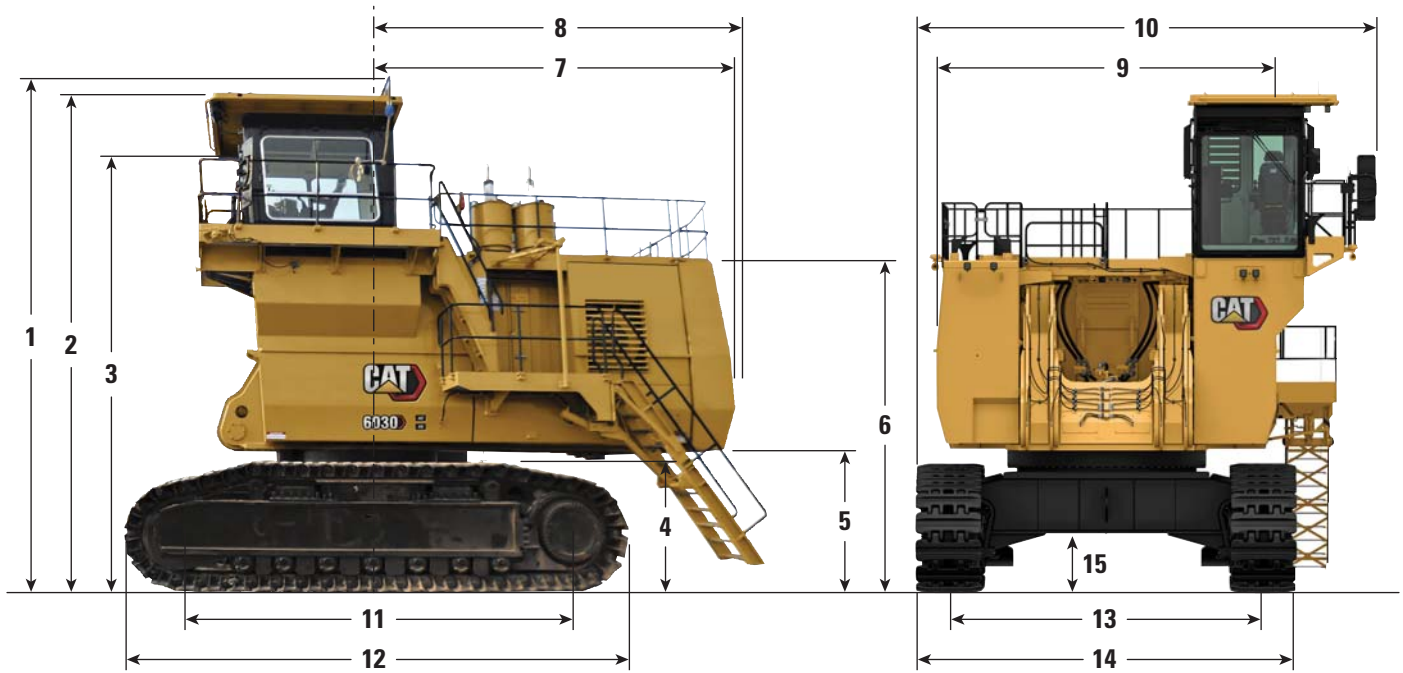
Optimal Pass Match with Cat Mining Trucks

	777G	785G	789
6030 AC	3	5	6

6030 AC Hydraulic Shovel Specifications

Dimensions

All dimensions are approximate.

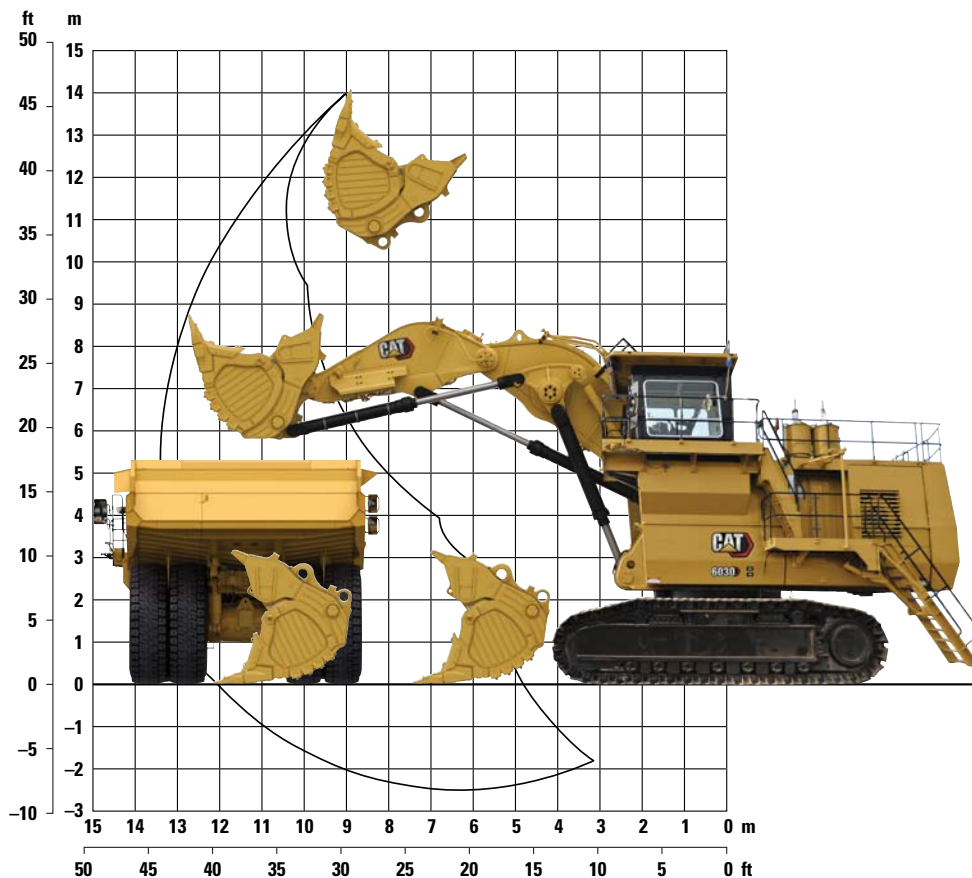


1 Height overall	8050 mm	26 ft 5 in
2 Height to Top Guard	7750 mm	25 ft 5 in
3 Operator Eye Level	6500 mm	21 ft 4 in
4 Height of Tracks	1940 mm	6 ft 4 in
5 Clearance under Counterweight	2170 mm	7 ft 1 in
6 Height to Top of Counterweight	4970 mm	16 ft 4 in
7 Tail Overhang	6330 mm	20 ft 9 in
8 Tail Swing Radius	6450 mm	21 ft 2 in
9 Width of Counterweight	5300 mm	17 ft 5 in
10 Width overall (@ 1000 mm [3 ft 3 in] standard pads)	7110 mm	23 ft 4 in
11 Length from Sprocket Center to Idler Center	6010 mm	19 ft 9 in
12 Crawler Length	7660 mm	25 ft 2 in
13 Track Gauge	4800 mm	15 ft 9 in
14 Width of Undercarriage (@ 1000 mm [3 ft 3 in] standard pads)	5800 mm	19 ft 8 in
15 Ground Clearance under Carbody Frame	880 mm	2 ft 11 in

6030 AC Hydraulic Shovel Specifications

Working Range – TriPower Face Shovel Attachment (FS)

All dimensions are approximate.



Boom	6.2 m	20 ft 4 in	Working Range	
Stick	4.4 m	14 ft 5 in	Maximum Digging Height	13.9 m 45 ft 7 in
Digging Forces (ISO)			Maximum Digging Reach	13.7 m 44 ft 11 in
Maximum Crowd Force	1298 kN	291,700 lbf	Maximum Digging Depth	2.5 m 8 ft 2 in
Maximum Crowd Force at Ground Level	1215 kN	273,050 lbf	Maximum Dumping Height	10.7 m 35 ft 1 in
Maximum Breakout Force	954 kN	214,390 lbf	Crowd Distance on Level	4.9 m 16 ft 1 in

Face Shovel Options

Type	Heavy Rock Bucket		Heavy Rock Bucket		Heavy Rock Bucket		Standard Rock Bucket	
Capacity Heaped 2:1 (ISO 7546)	12.0 m ³	15.7 yd ³	13.5 m ³	17.7 yd ³	15.0 m ³	19.6 yd ³	16.5 m ³	21.6 yd ³
Total Width	3935 mm	154.9 in	3935 mm	154.9 in	3935 mm	154.9 in	3935 mm	154.9 in
Opening Width	1706 mm	67.2 in	1706 mm	67.2 in	1706 mm	67.2 in	1706 mm	67.2 in
G.E.T. System	C95		C95		C95		C95	
Number of Teeth	6		6		6		6	
Wear Package	Heavy Duty – Abrasion		Heavy Duty – Abrasion		Heavy Duty – Abrasion		Heavy Duty – Impact	
Weight including Heaviest Tip Option	26 036 kg	57,400 lb	26 942 kg	59,397 lb	27 177 kg	59,915 lb	27 516 kg	60,662 lb
Rated Material Density (loose)	2.6 t/m ³	4,380 lb/yd ³	2.2 t/m ³	3,710 lb/yd ³	2.0 t/m ³	3,370 lb/yd ³	1.8 t/m ³	3,030 lb/yd ³

Additional bucket capacities and wear packages are available upon request.

6030 AC Standard and Optional Equipment

Standard and Optional Equipment

Standard and optional equipment may vary. 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)		✓	Pressurized low voltage switch cabinet:	✓	
Pressurized high voltage switch cabinet:	✓		– Motor Protection Relay (MPR)		
– Load breaking switches			– 24 V power supply		
– Main fuses			– Active power converter		
– Voltage transformers			– Phase reversal indication		
– Current transformer			– Circuit breakers		
– Voltage monitor for each phase			14 LED high-brightness working flood lights	✓	
– Vacuum contactors motor start/stop			11 LED service lights	✓	
Starting aid transformer		✓	2 electric horns (1 cab module, 1 oil cooler module)	✓	
Power factor correction		✓			
HYDRAULICS			UNDERCARRIAGE		
Cat pump managing system with:	✓		HD tracks with cast double-grouser track pads	✓	
– Electronic load limit control			800 mm (2 ft 7 in) wide track pads		✓
– Flow on demand			1000 mm (3 ft 3 in) wide track pads	✓	
– Automatic zero flow regulation			1200 mm (3 ft 11 in) wide track pads		✓
Pressure cut-off for main pumps	✓		Belly plate for additional undercarriage protection		✓
Cooling of pump transmission gear oil	✓		HD fixed axle rollers	✓	
Closed loop swing circuit	✓		HD fixed axle idlers	✓	
Pressure testing points	✓		Automatic hydraulic retarder valve	✓	
Full-flow high-pressure filters (100 µm), main pumps	✓		Acoustic travel alarm (forward and reverse)	✓	
High pressure filters (200 µm), closed swing circuit	✓		Hinged travel motor covers	✓	
Full-flow filters (10 µm), return circuit	✓		Hardened running surfaces of sprockets, idlers, rollers, pad links, teeth contact areas	✓	
Pressure filters swing charge circuit (40 µm)	✓		Fully hydraulic self-adjusting track tensioning system with piston accumulators	✓	
Pressure filters pilot circuit (6 µm)	✓		Slip ring in undercarriage	✓	
Transmission oil filters (40 µm)	✓		Cable guide with junction box at undercarriage	✓	
Boom float valves	✓		300 m (985 ft) trailing cable		✓
AUTOMATIC LUBRICATION SYSTEM					
Rectangular grease container, fill via service station	✓				
Lubricated pinion in swing ring	✓				
Grease filters (200 µm)	✓				

(continued on next page)

6030 AC 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
OPERATOR ENVIRONMENT			FRONT ATTACHMENT		
Single HVAC system	✓		TriPower Face Shovel attachment:	✓	
Dual HVAC system		✓	– Horizontal automatic constant-angle bucket guidance		
Pneumatically cushioned and multi-adjustable comfort seat with:	✓		– Vertical automatic constant-angle bucket guidance		
– Seat heating			– 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		
Independently adjustable seat consoles with integrated joysticks	✓		Guards for shovel cylinders at FS stick	✓	
Electronic-Hydraulic Servo Control	✓		Frontless base machine (no boom, no stick, no linkage or kinematics)		✓
FM/AM radio with USB and AUX input	✓		COLD WEATHER		
Fold-away auxiliary seat with 2-point safety belt	✓		Gear oil heater with thermostat		✓
Sliding side window	✓		Hydraulic oil heaters with thermostat		✓
Parallel intermittent wiper/washer	✓		SERVICE AND MAINTENANCE		
Roller blinds at all windows	✓		Hydraulic oil exchange interval – 10,000 hours	✓	
External sun shields at side and rear windows	✓		S·O·S SM sampling ports	✓	
Cat Board Control system (BCS2):	✓		Retractable ground level service station with quick couplings for:	✓	
– 305 mm (12 in) color touchscreen			– Pump transmission gear oil		
– On-screen documentation in .pdf			– Hydraulic oil		
– On-screen troubleshooting assistance			– Grease		
– On-screen graphic charts of logged data			SAFETY AND SECURITY		
– Fault memory of related conditions			Emergency stop switches: 1 in cab, 3 in motor module, 1 pull rope accessible from ground level	✓	
– USB interface for BCS screenshots			Operator Protective Guard (Top Guard)	✓	
66° ladder from engine bay to operator cab	✓		All-round safety glass	✓	
Powered 55° access ladder	✓		Armored windshield	✓	
Powered 45° access stairway		✓	Emergency egress harness kit	✓	
Two mirrors on LH side, one heated	✓		Operator presence switch	✓	
Camera monitoring system (two cameras and additional color display)		✓	MISCELLANEOUS		
Document storage	✓		ISO or ANSI decals	✓	

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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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