6060 6060 Engine: 2 x Cat® 3512E Engine output (HRC and LRC): Operating Weight: 2256 kW / 3,023 hp FS 598 800 kg / 1,320,110 lbs BH 600 500 kg / 1,323,860 lbs 61 tonnes / 67 tons **Bucket Payload:**





CAT[®] **6060**

HYDRAULIC MINING SHOVEL



WORKS HARDER. LASTS LONGER.

The next generation Cat® 6060 Hydraulic Mining Shovel combines everything you love about the 6060 with everything you demand from Caterpillar to deliver a shovel that not only produces, but that works harder, lasts longer, operates more efficiently and delivers greater profitability to your operation.

With its rated payload of 61 tonnes (67 tons), the 6060 was the first shovel in the mining industry tailor-made for mines using 240-ton (218-tonne) haul trucks, providing an efficient 4-pass solution to meet production capacity in these environments.

Today's 6060 remains the ideal shovel for these applications, with improvements and enhancements in durability and reliability to deliver the uptime you demand. The result is higher productivity and lower overall owning and operating costs.

100% CAT INTEGRATION

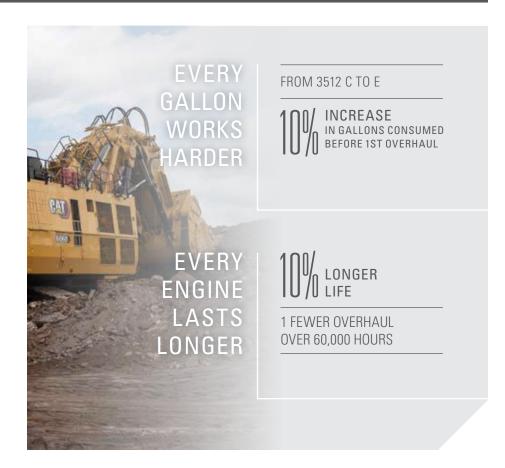
FUEL REDUCTIONS

- » Up to 15% in FS applications
- » Up to 5% in BH applications

LOWER LIFECYCLE COSTS

MORE ROBUST AND DURABLE

- » 30-tonne weight increase
- » Zero impact on performance





HIGH-PERFORMING ENGINES

The durable and proven Cat 3512E engines offer unsurpassed performance and have been proven to withstand the challenging conditions found at mine sites across the globe. Delivering high power output, proven reliability, and excellent fuel efficiency, 3512E engines keep the 6060 producing, while maintaining a low cost of operation.

FASTER FACE SHOVEL OPERATION

The 6060'S unique TriPower™ face shovel design has been proven to deliver safer, easier and faster face shovel operation. Generating superior mechanical leverage and control, our FS configured hydraulic mining shovels utilize a unique boom design that employs rotatable triangular rockers. This design facilitates quicker cycle times, increased effective lifting force, constant boom momentum, automatic constant bucket angle, and automatic roll-back limitation.



UNIQUE TWIN ENGINE CONCEPT

The 6060's twin engine concept delivers greater uptime and increased productivity. Up to 65% of full production can still be achieved with a single engine thanks to the shovel's continued ability to exert maximum digging forces, lower the front attachment without requiring engine power, and recuperate energy via its closed-loop swing circuit. The shovel can move away from high walls, blast zones or other safety hazards when in need of engine repair with single-engine operation. By comparing one engine and associated hydraulic network to the other engine, troubleshooting is expedited and simplified, therefore generating more uptime and more productivity.

FASTER BOOM MOVEMENT

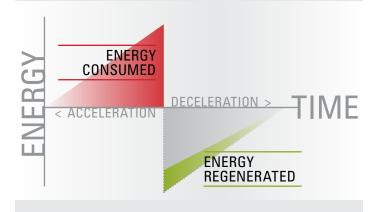
Cycle times are reduced thanks to the use of float valves rather than engaging pumps to lower the boom. This facilitates faster boom movements and allows other operating functions such as bucket curl and stick in/out to occur simultaneously.



CAPTURED ENERGY

The Closed-loop Swing System delivers faster cycle times and improved energy efficiency, while also generating less heat. Kinetic energy captured during the swing motion is fed back into the system during deceleration, providing more power to drive the main and auxiliary pumps. The system:

- + Uses pumps to decelerate
- + Uses energy instantaneously
- + Creates less heat
- + Lowers engine load factor
- + Reduces fuel consumption



PROTECTING AND EXTENDING THE LIFE OF HYDRAULIC COMPONENTS

OPTIMIZED COOLING

The Independent Oil Cooling system is a more efficient means of cooling that protects and extends the life of hydraulic components. The system is independent of return oil, achieving efficiency through the utilization of dedicated pumps that provide cooling capacity as needed, whether the engine is idling or under load. That means optimum oil temperature is being maintained, even while your operator waits for the next truck to load. Competitive hydraulic shovels provide cooling only when the machine is working and the engine is under load. Additional efficiency is achieved via our thermostatically controlled radiator fan speed.

- + Independent from return oil / machine movement
- + Continuous cooling keeps oil at optimal temperature
- + Temperature controlled



FULL INTEGRATION:

THE CATERPILLAR ADVANTAGE

Today's 6060 is fully Caterpillar, building on its performance to give you the productivity you demand from the manufacturer you trust for reliability and durability.

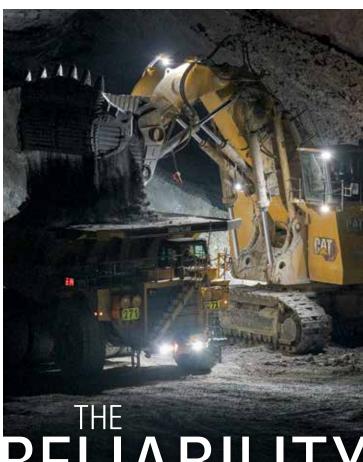
PROVEN AND VALIDATED ELECTRONICS

The integration of proven and validated Cat electronics delivers additional performance and reliability advantages. Intuitive, informative onboard electronics help operators be more productive. Common designs and componentry streamline maintenance. Connectivity features and integrated Cat MineStar™ Health offerings help you adopt a proactive approach to maintenance to keep your shovel on the job.

HIGHER UPTIME

The Caterpillar advantage also means higher uptime for your operation. Parts are stocked around the world for fast, efficient service. Service literature is easy to read and understand so technicians have the information they need to perform maintenance and repairs as quickly as possible. And like all Cat equipment, the 6060 is backed by the Cat dealer network for a seamless level of unparalleled support.





RELIABILITY TO MATCH THE PERFORMANCE

The next generation Cat 6060 has been improved and enhanced to be more durable and reliable — delivering the uptime you demand. The result is higher productivity and lower overall owning and operating costs.

IMPROVED STRUCTURES

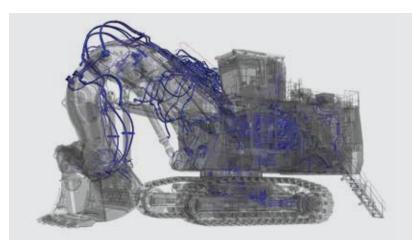
Today's 6060 lasts longer than ever, with significant improvements in the structures to deliver greater durability. We've increased the weight up to 30 tonnes without impacting performance, and a new and enlarged slew ring delivers higher hours and 33% longer service life. We've also strengthened the superstructure and increased the thickness in a number of locations.

LONGER LIFE COMPONENTS

Reliability of the 6060 is exceeding expectations thanks to a number of added features that improve life of the engine and components. A new undercarriage features long-life components, frame and electronics. We've introduced new idlers with duo cone seals and steel-backed bronze bearings. New HD rollers exceed the expected life of legacy rollers with no overheating, and lifetime lubrication reduces maintenance. We've also improved track pads and track tensioning.

REDUCED DOWNTIME

The 3512E engine platform increases durability. Maintenance downtime is reduced thanks to exchange intervals for engine oil and engine filters that have been increased from 500 to 1,000 hours.



VISUALIZING HOSE PERFORMANCE

Virtual design and validation of improvement opportunities included a rigorous hose audit performed by Cat engineers that has yielded excellent results. In addition to being better organized and routed to streamline service, the hoses are performing well — working more than 10,000 hours without a single major hydraulic leak.

Spend more time loading & less time servicing

The latest update to the 6060 eliminates a number of small issues that can add up to reduced availability. There's more room in the service compartment and we've streamlined maintenance by better organizing and routing hoses and other components. Hoses can be built locally using all Cat material. And an in-cab portal provides easy access to Cat Electronic Technician, helping dealer service personnel more easily diagnose and prevent issues.

SERVICE STATION

The ground-level service station provides easy access to functions such as coolant, hydraulic oil, slew gear box oil, grease, diesel and engine oil. The service station features an emergency shutoff, Cat battery charging connector and indicator lights for full fuel tanks. Swing and travel functions are disabled when the service station is lowered.

- + Retractable
- + Comfortable height
- + Improved access to all functions
- + Fast fill connections

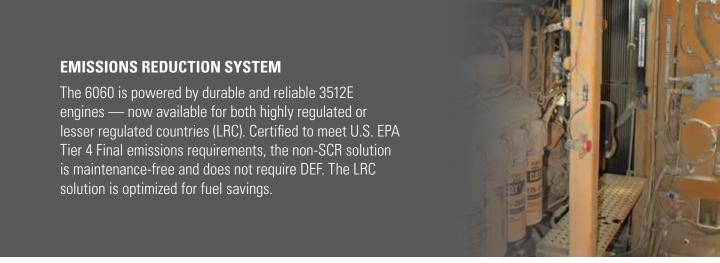




SUPERSTRUCTURE ACCESS

Clear arrangement of components on the superstructure grants easy access and serviceability for coolant expansion tanks, air intake filters, oil tank breather, HVAC unit, grease tank, exhaust, and starter and battery isolator. We've also provided easy access to the slew gearboxes, rotary distributor, high pressure swing filters and travel spool valves. Oil cooler accessibility enables easy cleaning and maintenance.





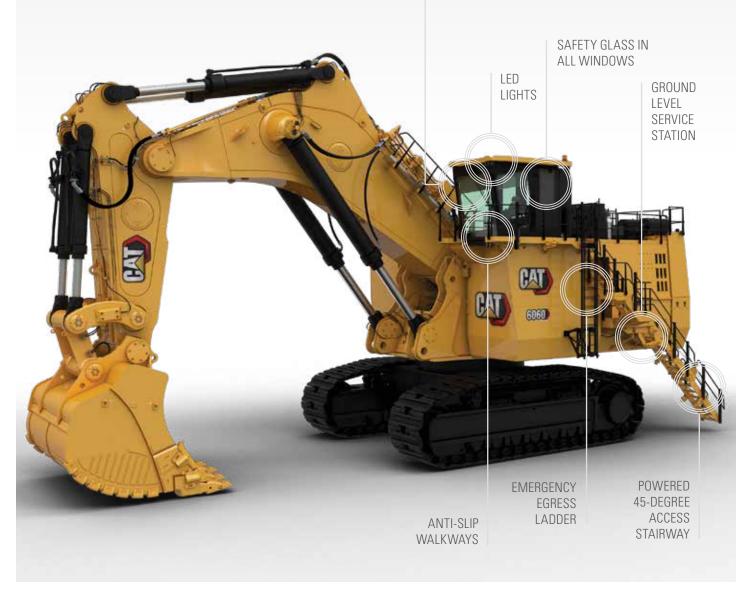
FOCUS ON SAFETY

IN, ON AND AROUND THE SHOVEL

The 6060 is designed with the operator in mind and has been updated to incorporate mining safety best practices as part of its standard design. With an eye on safety during both operation and maintenance, the design focuses on visibility, access and egress, hydraulic hose routing, electric wiring and fire prevention.

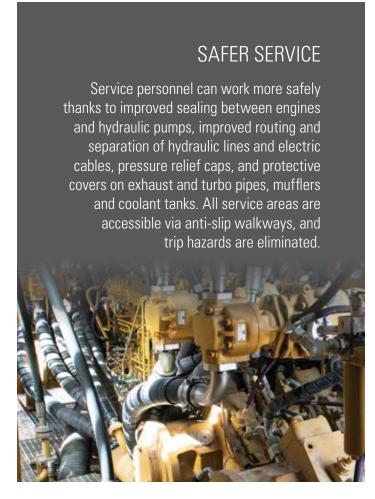
EXCELLENT VISIBILITY

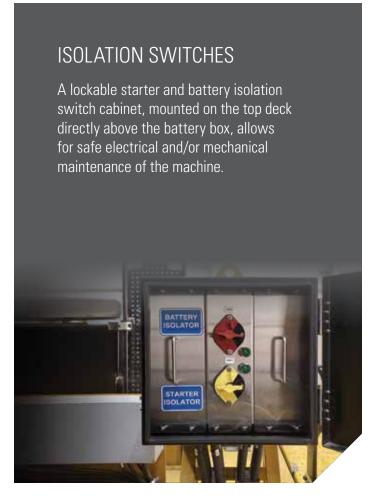
The position of the cab module provides excellent visibility of the digging and loading areas, and visibility is significantly improved thanks to a floor window that provides a view to the tracks. Integrated Cat MineStar and camera displays also enhance visibility.













We understand that the most important factor in your hydraulic shovel's effectiveness is the performance of its operator. To help make their workday as productive as possible, we've developed a cab that keeps operators safe, comfortable and in control. Designed by operators for operators, this state-of-the-art cab has everything operators need to work harder and last longer.

DESIGNED FOR COMFORT

The state-of-the-art operator cab, originally introduced in Cat B Series shovels, is the most comfortable and quiet in the industry. Operators enjoy a spacious environment with superior insulation that reduces noise and temperature. The cab features a new air conditioning system, Caterpillar Next Gen comfort seat, elevated full-size trainer seat, fold-away auxiliary seat, and ergonomic joystick controls.

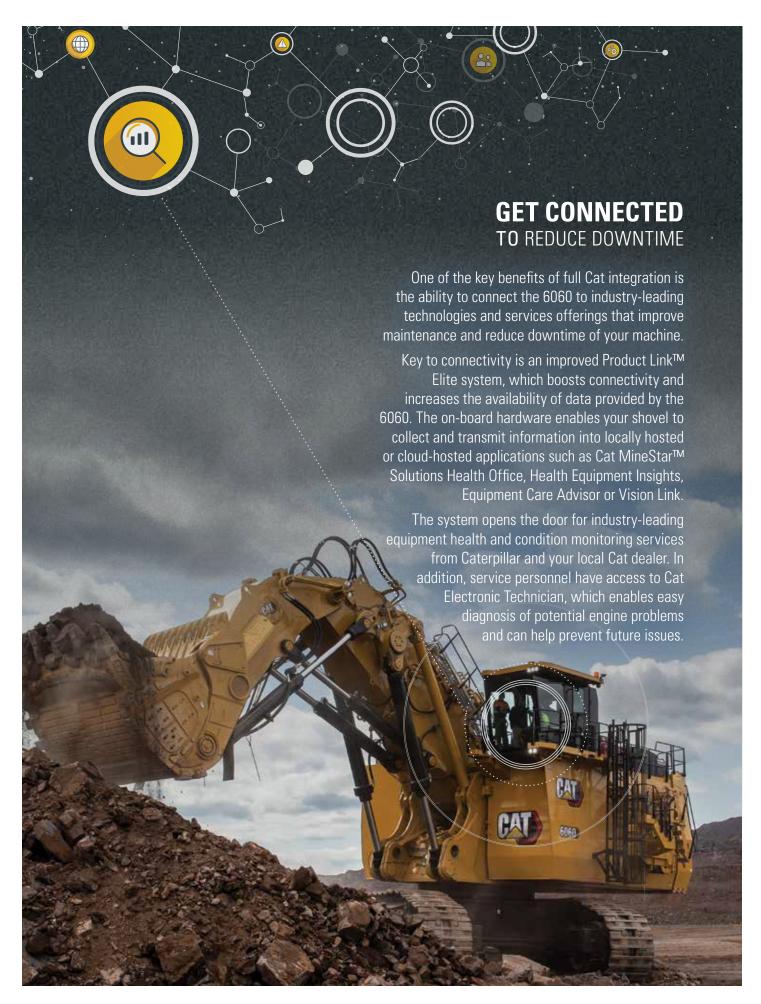
DESIGNED FOR PRODUCTIVITY

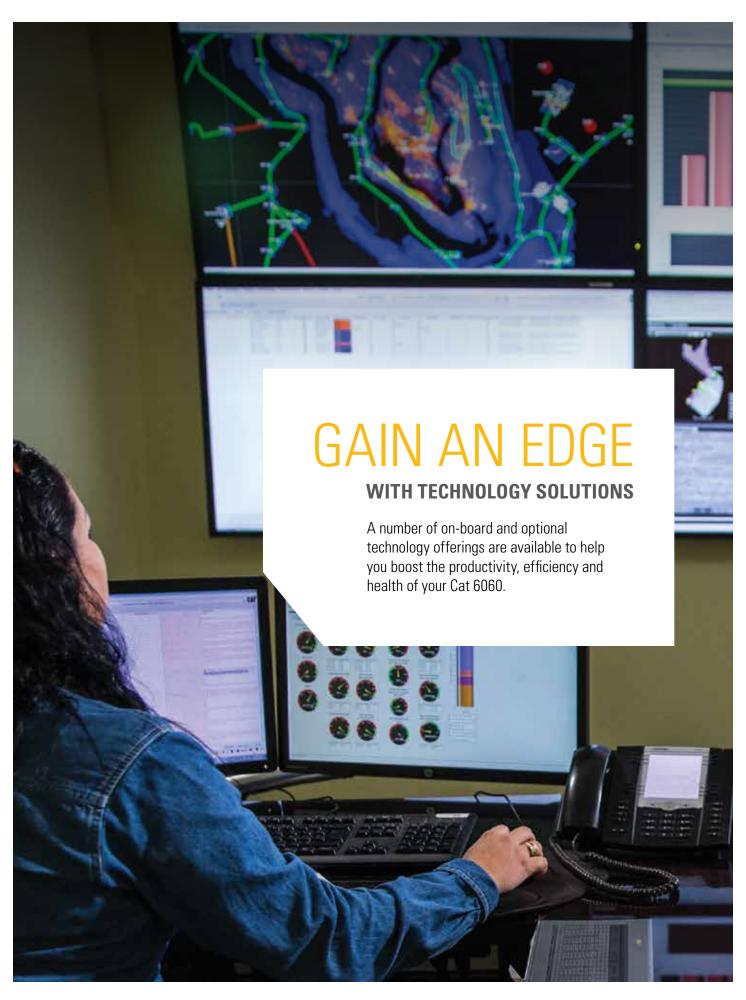
The Operator Assist — Enhanced Motion Control feature boosts operator efficiency, reduces fatigue and helps inexperienced operators more confidently load material. This feature also reduces contact of the linkage and cylinder, lowering maintenance costs, increasing component life and improving structural durability.

DESIGNED FOR CONTROL

Outside the cab, productivity is enhanced through the 6060's hydraulic system. Operators experience greater control with five circuit hydraulics that allow for two cylinder motions, two travel motions, and swing to be controlled simultaneously.

- + Flow on demand with excellent fine control
- + Zero-oil-flow regulation
- + Automatic Idling / RPM reduction (adjustable)
- + Boom float/regenerating valve





CAT MINESTAR™ SOLUTIONS

While they are not integrated at the factory, the capability sets of Cat MineStar™ Solutions are available as a retrofit. A comprehensive suite of technology products for the mining industry, MineStar offerings include:

- + Fleet, which provides real-time machine tracking, assignment and productivity management, providing a comprehensive overview of all your asset operations from anywhere in the world.
- + Terrain, which enables high-precision management of drilling, dragline, grading and loading operations through the use of guidance technology. It increases machine productivity and provides you real-time feedback for improved efficiency.
- Detect, which helps increase operator awareness, enhancing safety at your operation. It includes a range of capabilities designed to assist the operator, including blind spot and proximity detection of fixed and mobile equipment.
- + Health, which delivers critical eventbased machine condition and operating data for your entire fleet. It includes comprehensive equipment health and asset monitoring capabilities, with a wide range of diagnostic, analytic and reporting tools.



SHOVEL TECHNOLOGY SOLUTIONS

The Cat 6060 is integrated with several technology solutions out of the factory.

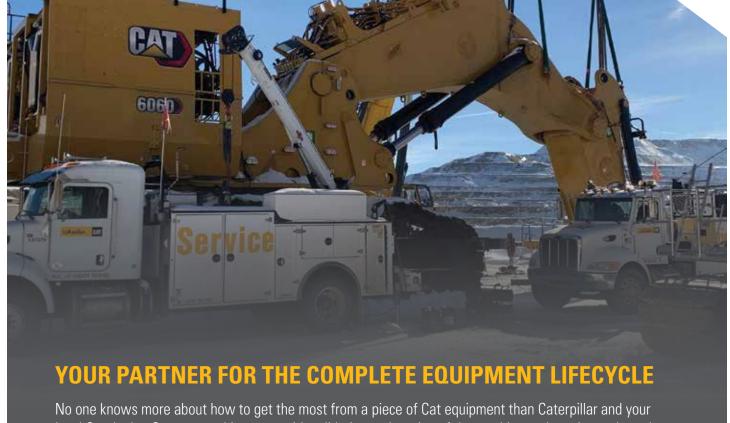
The Monitoring and Diagnostic System enhances diagnostic capabilities and provides detailed troubleshooting functions.

The onboard monitoring system controlled by Cat Electronics uses sensors throughout the machine to monitor operating data, record faults, and notify the operator audibly and visually. This promotes the earliest possible detection of faults and allows for timely maintenance planning and assistance for speedy repair.

- + Large 10-in (254-mm) touch screen
- + Live sensor monitoring
- + Visual & acoustic fault warnings
- + Machine settings can be made without additional hardware or software

Our commitment to your success doesn't end when your Cat 6060 begins loading overburden or ore. We immediately start looking for ways to make your shovel work more efficiently, safely and productively. From addressing performance issues, to training operators and technicians, to calibrating onboard technologies — our support of your shovel productivity is ongoing.





No one knows more about how to get the most from a piece of Cat equipment than Caterpillar and your local Cat dealer. Our partnership starts with validation and testing of the machine and continues through the complete lifecycle of the shovel.

The one-of-a-kind Cat dealer support network delivers expert service, integrated solutions, after-sales support, fast and efficient parts fulfilment, world-class rebuild and remanufacturing capabilities and more. Cat dealers operate as nearly 200 local businesses — each one fully embedded in and committed to the geographic area it serves. That means you work with people you know, who know your business, and who respond on your timeframe.

Caterpillar and Cat dealer personnel will partner with you on site to improve the performance not only of your shovels but of your overall loading and hauling operation. You'll have access to parts and service, as well as technicians who are focused on helping you optimize repairs to keep machines productive. And we help with training to ensure your operators have the skills and knowledge they need to work as efficiently and productively as possible.

We also work alongside you to ensure you achieve maximum value throughout the life of your equipment. Together with our Cat dealer network, we customize service offerings to provide a maintenance solution that fits your operation—whether you want to perform the majority of service yourself, or you're looking for an onsite partner to manage your maintenance organization. We're also consultants who can help you make smart decisions about buying, operating, maintaining, repairing, rebuilding and replacing equipment.









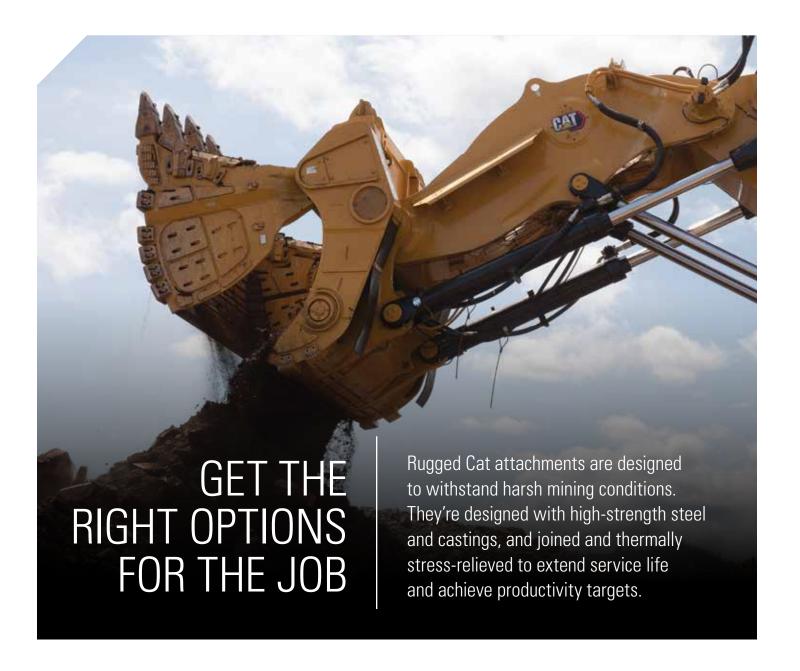












BUCKETS

Cat Hydraulic Mining Shovel buckets are designed to maximize durability and productivity. We have the right bucket size ideally matched to your shovel and your application.

FACE SHOVEL OPTIONS

Heavy Rock	Heavy Rock	Heavy Rock	Standard Rock
26.0 m ³	28.0 m ³	31.0 m ³	34.0 m ³
34.0 yd ³	36.6 yd³	40.5 yd³	44.5 yd³

Capacity Heaped 2:1 (ISO 7546)

BACKHOE BUCKET OPTIONS

Heavy Rock	Standard Rock	Light Duty
31.0 m ³	34.0 m ³	36.0 m ³
40.5 yd ³	44.5 yd³	47.1 yd³

Capacity Heaped 1:1 (ISO 7451)

GET SYSTEM

WEAR PACKAGE

All buckets are equipped with a wear package that keeps you productive while protecting your investment. The wear package consists of:

- + Special liner material covering main wear areas inside and outside of bucket
- + Shrouds to protect the specific areas from impact and abrasion
 - Lip shroud between teeth
 - Wing shrouds on outer corners of the side walls
 - Heel shrouds at bottom edges

Special wear packages for highly abrasive materials are available upon request





EXPANDED OFFERINGS

WITH SPECIALTY SOLUTIONS

- + Frontless shovel arrangements
- + Upper-only arrangements for fixed installations
- + Undercarriage and track arrangements

TECHNICAL SPECIFICATIONS

See cat.com/6060 for complete specifications.

DIESEL ENGINES – LESSER REGULATED			
Make and model		2x Cat 3512E	
Rated speed	1,800 min-1	1,800 rpm	
Total rated gross power – SAE J1995	2256 kW	3,023 hp	
* Optimized for fuel consumption.			

DIESEL ENGINES – HIGHLY REGULATED			
Make and model		2x Cat 3512E	
Rated speed	1,800 min-1	1,800 rpm	
Total rated gross power – SAE J1995	2256 kW	3,023 hp	
* Meets U.S. EPA Tier 4 Final emission requirements. These engines participate in the U.S. EPA averaging, banking, and trading provisions.			

ELECTRICAL SYSTEM	
System Voltage	24 V
Batteries in series / Parallel Installation	6 x 210 Ah – 12 V each 630 Ah – 24 V in total

OPERATING WEIGHTS			
Face Shovel (FS)	598 800 kg	1,320,110 lb	
Backhoe (BH)	600 500 kg	1,323,860 lb	
* Operating weights include: base machine, front attachment, standard track pads, standard rock bucket, 100% fuel and lubricants.			

SERVICE REFILL CAPACITIES			
Fuel Tank Capacity	11 870 L	3,136 gal	
Hydraulic Tank	7100 L	1,876 gal	
Hydraulic System (including tank)	9400 L	2,483 gal	
Engine Oil	2 x 164 L	2 x 43.3 gal	
Engine Coolant	2 x 400 L	2 x 105.7 gal	
Grease container	710 L	188 gal	

HYDRAULICS			
Maximum Flow to Main Pumps	8 x 650 L/min 8 x	172 gal/min	
Maximum Pressure – Attachment	320 bar	4,640 psi	
Maximum Pressure – Travel	360 bar	5,220 psi	
Maximum Flow to Swing Pumps	4 x 352 L/min 4 :	k 93 gal/min	
Maximum Pressure – Swing	350 bar	5,075 psi	

	SWING SYSTEM
Swing Speed	3.8 rpm
Swing Circuit	Closed-loop with Torque Control

UNDERCARRIAG	E	
Maximum Travel Speed – 1st stage	1.1 km/h	0.68 mph
Maximum Travel Speed – 2nd stage	1.6 km/h	0.99 mph
Maximum Tractive force	2942 kN	661,160 lbf

OPERATOR ENVIRONMENT			
Operator's Eye Level	7.6 m	24 ft 11 in	
Spectator Sound Power Level (L _{WA}) ISO 6395:2008		122 dB(A)	
Operator Sound Pressure Level (L _{PA}) ISO 6396:2008		68 dB(A)	
Operator Protective Guard (Top Guard)	ISO 10262:	1998 Level II	

DIMENSIONS		
Height overall	9110 mm	29 ft 11 in
Height of tracks	2490 mm	8 ft 2 in
Clearance under counterweight	2810 mm	9 ft 3 in
Tail swing radius	7930 mm	26 ft 0 in
Width overall (@ 1400 mm [4'7"] standard pads)	8700 mm	28 ft 7 in
Crawler length	9220 mm	30 ft 3 in
Track gauge	5600 mm	18 ft 4 in

WORKING RANGES AND FORCES				
FACE SHOVEL				
Boom	8.0 m	26 ft 2 in		
Stick	5.1 m	16 ft 9 in		
Standard Rock Bucket Capacity Heaped 2:1 (ISO 7546)	34.0 m ³	44.5 yd ³		
G.E.T. System with six (6) teeth	CL1-W950			
Max Crowd Force (ISO)	2200 kN	494,410 lbf		
Max Breakout Force (ISO)	1730 kN	388,780 lbf		
Max Digging Height	15.6 m	51 ft 2 in		
Max Digging Reach	16.5 m	54 ft 2 in		
ВАСКНОЕ				
Boom	10.5 m	34 ft 5 in		
Stick	5.0 m	16 ft 5 in		
Standard Rock Bucket Capacity Heaped 1:1 (ISO 7451)	34.0 m ³	44.5 yd ³		
G.E.T. System with six (6) teeth	CL1-W900			
Max Tearout Force (ISO)	1316 kN	295,740 lbf		
Max Breakout Force (ISO)	1223 kN	274,840 lbf		
Max Digging Reach	19.0 m	62 ft 4 in		
Max Digging Depth	8.9 m	29 ft 2 in		

STANDARD & OPTIONAL EQUIPMENT

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

CAT POWER TRAIN	STANDARD	OPTIONAL
2 x Cat 3512E Engines	•	O. HOMAL
Aftertreatment System (used with highly regulated engines only) » Diesel Oxidation Catalyst (DOC) » Non-DEF solution	•	
Hydraulically driven radiator fan	•	
Electronically controlled fan speed	•	
Two-stage fuel filter with series filtration	•	
Automatic engine idle shut down	•	
HYDRAULICS	STANDARD	OPTIONAL
Hydraulic Optimization	•	
Operator Assist: Enhanced Motion Control	•	
Pump management system » Electronic load limit control » Flow on demand » Automatic zero flow regulation » Automatic engine RPM reduction	•	
Pressure cut-off for main pumps	•	
Closed loop swing circuit	•	
Boom float valve (FS and BH)	•	
Stick float valve (FS only)	•	
ELECTRICAL SYSTEM	STANDARD	OPTIONAL
6 maintenance-free batteries	•	
13 LED high-brightness working flood lights	•	
16 LED service lights	•	
UNDERCARRIAGE & STRUCTURES	STANDARD	OPTIONAL
HD tracks with cast double-grouser track pad	•	
1400 mm (4'7") wide track pads	•	
HD fixed axle rollers	•	
HD fixed axle idlers	•	
Belly plate for additional undercarriage protection		•
Automatic hydraulic retarder valve	•	
Acoustic travel alarm (forward and reverse)	•	
Fully hydraulic self-adjusting track tensioning	•	
FRONT ATTACHMENT	STANDARD	OPTIONAL
TriPower™ Kinematics (Face Shovel only)		•
Guards for shovel cylinders at FS stick		•
Backhoe attachment		•
Frontless base machine		•
Catwalks with rails at boom (FS and BH)	•	
Wear package and shrouds	•	
Special wear packages		•

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OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Single HVAC system	•	
Dual HVAC system		•
Heated, pneumatically cushioned and multi-adjustable comfort seat	•	
Independently adjustable seat consoles with intergrated joysticks	•	
FM/AM radio with USB and AUX input	•	
Fold away auxiliary seat	•	
Sliding side window	•	
Roller blinds at all windows	•	
External sun shields	•	
Camera monitoring system		•
Cat Board Control System with 305 mm (12 in) color touchscreen	•	
Inclinometer	•	
CAT TECHNOLOGY	STANDARD	OPTIONAL
Product Link Elite™ (Cellular)	•	
Product Link Elite™ (Satellite)		•
Product Link Elite™ Dual Mode (Cellular + Satellite)		•
Cat Minestar™ Solutions ready	•	
COLD WEATHER	STANDARD	OPTIONAL
Cold Weather Package (400V; 50Hz)		•
Cold Weather Package with UL Certification (208V; 60 Hz)		•
SERVICE & MAINTENANCE	STANDARD	OPTIONAL
Retractable ground-level service station with quick couplings for ease of use	•	
Cat Electronic Technician service port	•	
Automatic lubrication system (710 L [188 gal] capacity)	•	
S.O.S. SM sampling ports	•	
Engine oil exchange interval – 500 hours	•	
Engine oil exchange interval – 1,000 hours		•
Hydraulic oil exchange interval – 10,000 hours	•	
SAFETY & SECURITY	STANDARD	OPTIONAL
Emergency egress ladder	•	
Powered 45° access stairway	•	
All-around safety glass	•	
Operator Protective Guard (Top Guard)	•	
Safety seat contact switch	•	
Emergency Stop Switches: 2 in cab, 5 in engine module, 1 at ground level, and 1 pull rope accessible from group level	•	
MISCELLANEOUS	STANDARD	OPTIONAL
ISO or ANSI decals	•	J. HOME
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For more complete information on Cat products, dealer services and industry solutions, visit us at www.cat.com

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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