

352

HYDRAULIC EXCAVATOR



Net Power – ISO 9249
Operating Weight
Maximum Digging Depth

330 kW (443 hp)
48 900 kg (107,800 lb)
8210 mm (26.11 ft)



352

HYDRAULIC EXCAVATOR

The Cat® 352 excavator offers premium performance with a variety of Cat attachments and simple-to-use technologies like Cat Grade with 2D, Grade Assist, and Payload – all standard equipment from the factory to boost your operator efficiencies up to 45 percent. Combine these with standard safety features like E-Fence and all-new Rollover Protective Structure (ROPS) cab, longer maintenance intervals that lower your maintenance costs up to 15 percent, a power system that improves fuel efficiency up to 10 percent and you have a low-cost-per-unit-of-production excavator that's perfect for your applications.

Not all features available in all regions. Consult your Cat dealer for specific configurations available in your region.



UP TO 9% MORE FUEL EFFICIENCY

Get more work done with higher engine power, heavier counterweight, and larger bucket capability than the previous series.

LOWER MAINTENANCE COSTS

Increase uptime and reduce costs with industry-leading fuel efficiency, long-life filters, and easy-to-reach service points.

MORE OPERATING EFFICIENCY

Experience the industry's highest level of performance with standard Cat Grade, Payload, and E-Fence.

LATEST FEATURES



Cab Monitor Improvements

1. Continuously improved user interface allows for intuitive navigation, minimizing performance interruption with the easy-to-use touchscreen menu.
2. Identify apps quickly with a grid list view, abbreviated app names, and categorized menu options.
3. A new notification center keeps important information visible to the operator, and displays messages without shrinking the camera view.
4. Color coded notifications set critical messages apart from the rest.
5. Use the in-monitor QR code to learn about machine technology and features through a full suite of “how-to” videos.

Operator Coaching

1. Operator Coaching is an in-cab system that recognizes specific opportunities for operators to be more productive and prevent unnecessary machine wear and tear.
 2. After detecting inefficient or restricted actions, the system alerts the operator and provides insight into the inefficiency and steps to improve.
 3. Paired with a VisionLink® Productivity subscription, this information and other Operator Coaching insights can be viewed from anywhere.
- Standard integrated vehicle health management system alerts the operator with service guidance and parts needed to enhance uptime.
 - Optional Cat Detect – People Detection helps protect the most valuable asset on any jobsite – people. The system uses smart cameras with depth sensors to provide the operator with visual and auditory alerts so he or she can take immediate action when a person is too close to the excavator.
 - Enhance visibility to make service work easier and safer with optional inspection lighting.

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area. Build Number: 08C



HIGH PERFORMANCE, LOW FUEL CONSUMPTION

- The Cat® C13 engine and electrohydraulic system work together to help you power through all types of work, quickly and efficiently.
- Auxiliary hydraulic options give you the versatility to use a wide range of Cat attachments.
- Heavier counterweight enables greater stability and lift capability with bigger tools compared to the previous model.
- Dig deep and reach far with an available Long Reach configuration.
- Self-sharpening Advansys™ bucket tips increase production and lower costs.
- Match the excavator to the job with three power mode choices: Smart, Power, and Eco. Smart mode automatically matches engine and hydraulic power to digging conditions, providing maximum power when needed and reducing power when it isn't to help save fuel.
- The high-efficiency hydraulic fan cools the engine on demand to help reduce fuel consumption; available reverse function makes it easy to keep cores clean.
- Don't let the temperature stop you from working. This excavator has a high-ambient capability of 52° C (125° F) and cold start capability of -18° C (0° F).



EFFICIENCY THROUGH TECHNOLOGY

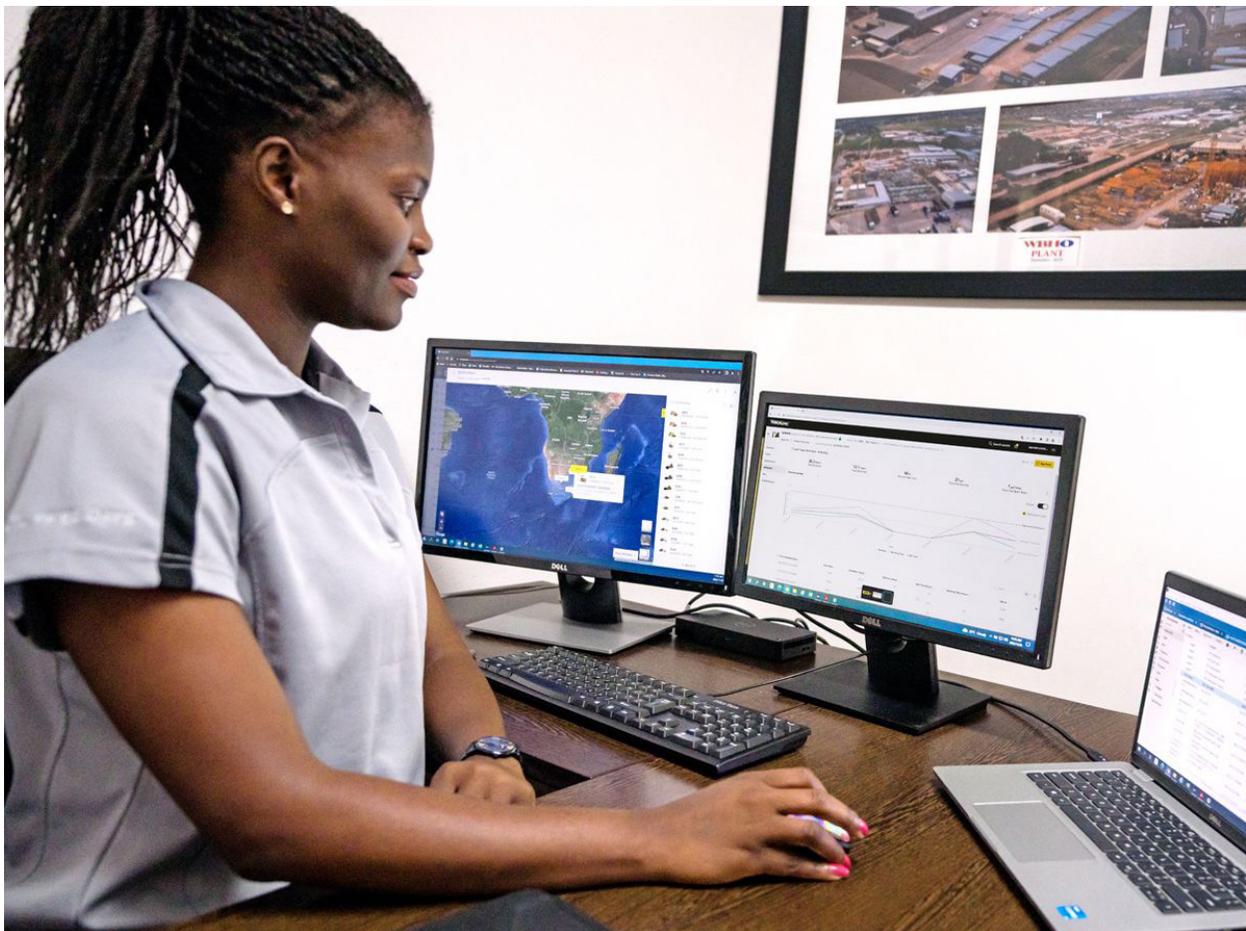


- Boost productivity up to 45% versus traditional grading with standard Cat Grade with 2D system – includes indicate-only and laser capability.
- Want a 3D system to improve your digging results? Caterpillar single antenna global navigation satellite system (GNSS) makes it easy by giving you visual and auditory guidance to grade. Plus, you can create and edit designs on the touchscreen monitor while you're on the job. If your application calls for a dual antenna system, it's easy to upgrade.
- Upgrade to our dual antenna GNSS for maximum grading efficiency. The system lets you create and edit designs on the touchscreen monitor while you're on the job, or you can have the plan design sent to the excavator to make your work easier. Plus, you get added benefits of avoidance zones, cut and fill mapping, lane guidance, and augmented reality along with advanced positioning capability.
- Standard Grade Assist helps you stay on grade – simply and effortlessly – with single-lever digging.
- Dig with guidance to depth, slope, and horizontal distance to grade. You can set up to four different depth and slope targets to help save time and money.
- Automatically stop excavator swing at operator-defined set points in truck loading and trenching applications with Swing Assist.
- Cat Payload helps you achieve precise load targets to improve your operating efficiency. Pick up a load of material – with a bucket and thumb combination or grapple and clamshell attachments – and get a real-time weight estimate without swinging.
- Combine Payload with VisionLink and remotely manage your production targets.
- Operator Coaching is an in-cab system that recognizes specific opportunities for operators to be more productive and prevent unnecessary machine wear and tear.



TAKE THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

- VisionLink provides actionable data insights for all assets – regardless of fleet size or equipment manufacturer.* Review equipment data from your desktop or mobile device to maximize uptime and optimize assets. Dashboards provide information such as hours, miles, location, idle time, and fuel utilization. Make informed decisions that lower costs, simplify maintenance, and improve safety and security on your jobsite.
 - VisionLink Productivity gathers and summarizes machine telematics and jobsite data from all your equipment – regardless of the manufacture. *View actionable information such as idle time, fuel burn, location, payload, load counts, total cycles, and more to improve machine efficiency, productivity, and utilization. Access data anywhere via a mobile, tablet, or desktop device – on or off the jobsite.
 - Cat® Inspect is a mobile application that allows you to easily perform digital preventative maintenance (PM) checks, inspections, and daily walkarounds. Inspections can easily be integrated with other Cat data systems like VisionLink so you can keep a close eye on your fleet.
 - Remote Troubleshoot is a mobile application that allows your Cat dealer to perform diagnostic testing on your connected machine remotely to help ensure that issues are resolved quickly and with less downtime.
 - Remote Flash is a mobile application that allows you to update onboard software without a technician being present, allowing you to initiate software updates when convenient, increasing your overall operating efficiency.
 - The Cat PL161 attachment locator allows you to track attachments across all worksites, reduce the number of lost attachments, and plan for attachment maintenance and replacement. The work tool recognition feature automatically adjusts machine settings based on the selected tool.
- * Data field availability can vary by equipment manufacturer.**



RELIABLE IN TOUGH CONDITIONS



- Reinforced booms, sticks, and frame make the machine more durable and built to last.
- Work up to 4500 m (14,760 ft) above sea level.
- Standard high-ambient temperature capability is 52° C (125° F) with cold start capability at -18° C (0° F).
- Auto hydraulic oil warmup gets you to work faster in cold temperatures and helps prolong the life of components.
- Grease sealed between track pins and bushings reduces travel noise and prevents debris from entering to increase undercarriage life.
- Sloped track frame prevents mud and debris accumulation, helping reduce risk of track damage.



SIMPLE TO OPERATE

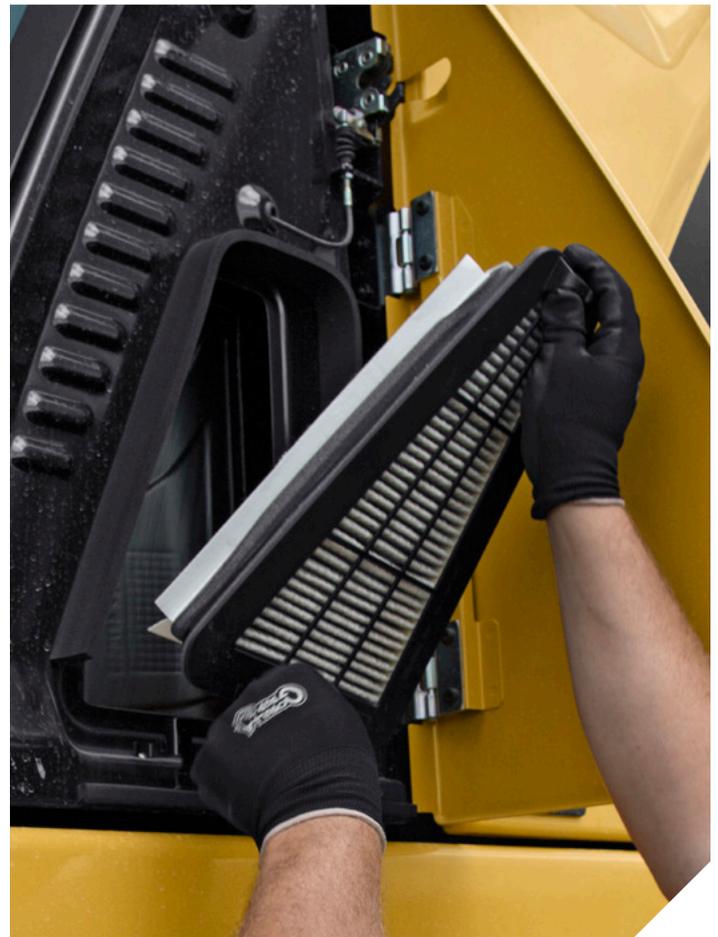
- Start the engine with a push button; use a Bluetooth® key fob or the unique Operator ID function.
- Program each joystick button, including power mode, response, and pattern, using Operator ID; the machine will remember what you set each time you go to work.
- Make moving the excavator much easier with optional Cat Stick Steer. Simply push a button and use one hand to travel and turn instead of both hands or feet on levers or pedals.
- Make operating easier with the touch of a joystick button. An auxiliary relay allows you to power on or turn off a CB radio, beacon light, and even a dust suppression watering system without taking your hands off the joysticks.
- Cat continues to improve user interface functionality for operators of all skill levels. The touchscreen monitor is an easy-to-use operating tool that presents the jobsite dashboard with an intuitive format. Productivity applications are displayed in grid-view to read on-the-go, and touchscreen navigation is programmed to make sure job performance continues without any hold ups.
- Trouble cutting through tough material? Auto dig boost gives you an automatic power increase of 8 percent when you need it for better bucket penetration, shorter cycle times, and greater payloads.
- Need more lift during your shift? Auto heavy lift gives you 8 percent more power exactly when you need it for as long as you need it.
- The Cat PL161 attachment locator is a Bluetooth device that makes finding your attachments and other gear quick and easy. The excavator's onboard Bluetooth reader will locate the device automatically.
- Not sure how a function works or how to maintain the excavator? Always have the operator's manual at your fingertips in the touchscreen monitor.



EASY MAINTENANCE



- Boost productivity with proactive service reminders. The Integrated vehicle health management system alerts the operator with step-by-step service guidance along with parts needed so you don't experience any unnecessary downtime.
- Long life fuel, oil, and air filters help maximize your uptime.
- Check hydraulic system oil and easily drain fuel system water and fuel tank water from ground level.
- Add the optional inlet air heater to improve cold start capability.
- Track your excavator's filter life and maintenance intervals via the in-cab monitor.
- The optional engine oil sensor tracks your oil levels to speed up daily maintenance.
- Change all fuel filters at a synchronized 1,000 hours. Filters are grouped together for easy maintenance.
- The air intake filter with pre-cleaner has high dust holding capacity.
- The hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced.
- The high-efficiency hydraulic fan has an optional automatic reverse function to keep cores free from debris, eliminating the need for any operator interaction.
- Scheduled Oil Sampling (S-O-SSM) ports simplify maintenance and allow for quick, easy extraction of fluid samples for analysis.



WORK IN COMFORT

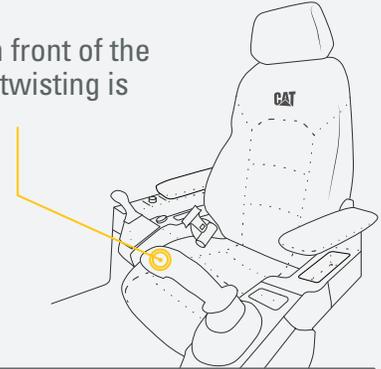
- Choose between Deluxe and Premium cabs with tilt-up consoles for easy entry and exit.
- Deluxe cab offers a heat seat. Premium cab offers heated and ventilated seat for year-round comfort.
- Control the excavator comfortably with easy-to-reach controls all located in front of you.
- Stow your gear with plenty of in-cab storage beneath and behind the seat and in the consoles.
- Use the standard radio's USB ports and Bluetooth technology to connect personal devices and make hands-free calls.

WE'VE GOT YOUR BACK.

BACK PAIN IS ONE OF THE MOST COMMON REASONS PEOPLE MISS WORK.*

CAB:

All controls are in front of the operator. Limited twisting is required.



ASSUME 1 TWIST PER HOUR
1 TWIST × 8-HOUR WORKDAY = 8 TWISTS PER DAY
8 TWISTS × 5 WORKDAYS PER WEEK = 40 TWISTS PER WEEK
40 TWISTS × 52 WEEKS PER YEAR = **2,080 TWISTS PER YEAR**

*SOURCE: [HTTPS://WWW.NINDS.NIH.GOV/DISORDERS/PATIENT-CAREGIVER-EDUCATION/FACT-SHEETS/LOW-BACK-PAIN-FACT-SHEET](https://www.ninds.nih.gov/disorders/patient-caregiver-education/fact-sheets/low-back-pain-fact-sheet)



BUILT-IN SAFETY



- Cat Detect – People Detection helps protect the most valuable asset on any jobsite – people. The system uses smart cameras with depth sensors to provide the operator with visual and auditory alerts so he or she can take immediate action when a person is too close to the excavator.
- Enhance jobsite safety by adding Cat Command to your fleet. The remote control system comes with everything you need like WIFI radio, cameras, and microphone so you can work outside of the cab and avoid potential hazards.
- Standard 2D E-Fence prevents the excavator from moving outside of operator-defined set points.
- Lift Assist helps you avoid tipping by letting you know if your load is within the excavator's safe working range limits.
- A travel direction indicator helps operators know which way to activate the travel levers.
- Enjoy great visibility into the trench, in each swing direction, and behind you with the help of narrow cab pillars, large windows, and a flat engine hood design.
- A ground-level shutoff switch stops all fuel to the engine when activated and shuts down the machine.
- Rearview and right-hand-sideview cameras are standard. Upgrade to 360° visibility and you'll easily visualize objects and personnel around the excavator in a single view.
- Serrated steps and anti-skid punch plate on the service platform help prevent slipping.
- Keep your excavator secure with Operator ID. Use your PIN code on the monitor to enable the push button starting feature.
- Make service work easier and safer with optional inspection lighting. With the flip of a switch, lights will illuminate the engine, pump, battery, and radiator compartments to enhance visibility.
- Add an optional swing alarm to safeguard surroundings and assets. This feature sends out warnings to the operator for any unexpected swings to enhance safety, minimizing downtime and increasing productivity.
- The ROPS cab meets industry standards and protects the operator in the event of a rollover.

SUSTAINABILITY

- The Cat C13B engine meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- 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)* or 100% renewable diesel, HVO (hydrogenated 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.
- Cat Grade technologies combine advanced guidance with optional automated machine control helping you reach grading targets while reducing fuel burn and greenhouse gas emissions by improving efficiency, jobsite productivity, and accuracy.
- Auto Engine Speed Control reduces unnecessary fuel burn and greenhouse gas emissions by allowing the engine to automatically go into idle mode when the machine is not working.
- Cat® Payload for excavators provides on-the-go material weighing which helps reduce fuel burn by improving loading efficiency, jobsite productivity, and eliminating trips to the scale.
- Cat® 2D E-fence keeps the front linkage within a predefined work area to avoid hazards such as traffic – not only helping keep personnel safe but also helps you avoid repairs, downtime, and costly jobsite fines.
- Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine.
- Cat VisionLink displays the CO₂ emissions for monitored assets, calculated by fuel type for the Runtime Fuel Burned each day in a selected date range.
- Remote Flash minimizes downtime and maintenance time while keeping your asset running with maximum efficiency. Alerts for machine updates are sent virtually from your Cat dealer and updates can be deployed without a dealer technician needing to be onsite.
- Remote Troubleshoot decreases maintenance time and keeps your machine running with maximum efficiency by allowing your Cat dealer to virtually test the machine while working. Once a problem is identified, a technician can fix it the first time, saving time and money.

***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).**

****Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.**



INCREASE YOUR PRODUCTIVITY AND PROFIT WITH CAT ATTACHMENTS

You can easily expand the performance of your machine by utilizing any of the variety of Cat attachments. Each Cat attachment is designed to fit the weight and horsepower of Cat excavators for improved performance, safety, and stability.

Attachments may vary. Consult your Cat dealer for details.

BUCKETS



GRAPPLES



HYDRAULIC HAMMERS



MULTI-PROCESSORS



QUICK COUPLERS



SECONDARY PULVERIZERS



SHEARS



ORANGE PEEL GRAPPLES



TECHNICAL SPECIFICATIONS

Engine

Net Power – ISO 9249	330 kW	443 hp
Net Power – ISO 9249 (DIN)	449 hp (metric)	
Engine Model	Cat C13B	
Engine Power – ISO 14396	332 kW	445 hp
Engine Power – ISO 14396 (DIN)	451 hp (metric)	
Bore	130 mm	5 in
Stroke	157 mm	6 in
Displacement	12.5 L	763 in ³
Biodiesel Capability	Up to B20 ¹	
Emissions	Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.	

Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system, and alternator with engine speed at 2,000 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

¹Cat 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)* or 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.

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Hydraulic System

Main System – Maximum Flow	779 L/min (206 gal/min)	
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Equipment – Lift Mode	38 000 kPa	5,511 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	26 000 kPa	3,771 psi

Swing Mechanism

Swing Speed	8.3 r/min	
Maximum Swing Torque	189 kN·m	139,000 ft·lbf

Weights

Operating Weight	48 900 kg	107,800 lb
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Service Refill Capacities

Fuel Tank Capacity	715 L	188.9 gal
Cooling System	52 L	13.7 gal
Engine Oil	40 L	10.6 gal
Swing Drive	10.5 L	2.8 gal
Final Drive – Each	9.5 L	2.5 gal
Hydraulic System – Including Tank	550 L	145.3 gal
Hydraulic Tank	217 L	57.3 gal
Diesel Exhaust Fluid (DEF) Tank	80 L	21.1 gal

Dimensions

Boom	Reach 6.9 m (22'8")	
Stick	Reach 3.9 m (12'10")	
Bucket	HD 3.3 m ³ (4.32 yd ³)	
Shipping Height – Top of Cab	3230 mm	10.7 ft
Handrail Height	3370 mm	11.1 ft
Shipping Length	11 900 mm	39.1 ft
Tail Swing Radius	3760 mm	12.4 ft
Counterweight Clearance	1280 mm	4.2 ft
Ground Clearance	475 mm	1.7 ft
Track Length	5370 mm	17.7 ft
Track Length to Center of Rollers	4360 mm	14.4 ft
Track Gauge	2740 mm	9 ft
Transport Width	3640 mm	11.11 ft

Working Ranges & Forces

Boom	Reach 6.9 m (22'8")	
Stick	Reach 3.9 m (12'10")	
Bucket	HD 3.3 m ³ (4.32 yd ³)	
Maximum Digging Depth	8210 mm	26.11 ft
Maximum Reach at Ground Level	12 150 mm	39.9 ft
Maximum Cutting Height	10 730 mm	35.2 ft
Maximum Loading Height	7420 mm	24.4 ft
Minimum Loading Height	2200 mm	7.3 ft
Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	8080 mm	26.6 ft
Maximum Vertical Wall Digging Depth	5860 mm	19.3 ft
Bucket Digging Force – ISO	267 kN	60,000 lbf
Stick Digging Force – ISO	183 kN	41,100 lbf

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.00 kg of refrigerant, which has a CO₂ equivalent of 1.430 metric tonnes.

STANDARD & OPTIONAL EQUIPMENT

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

	Standard	Optional
UNDERCARRIAGE AND STRUCTURES		
Towing eye on base frame	✓	
Fixed gauge undercarriage		✓
Variable gauge undercarriage		✓
High wide undercarriage on LRE only		✓
600 mm (24") double grouser track shoes		✓
600 mm (24") triple grouser track shoes		✓
750 mm (30") triple grouser track shoes		✓
900 mm (35") triple grouser track shoes		✓
CAT TECHNOLOGY		
VisionLink	✓	
Remote Flash	✓	
Remote Troubleshoot	✓	
Cat Grade 2D	✓	
Cat Grade with Assist	✓	
Cat Payload	✓	
E-Fence	✓	
Lift Assist	✓	
Cat Grade Connectivity		✓
Cat Grade 2D with Attachment Ready Option (ARO)		✓
Cat Grade 3D single GNSS		✓
Cat Grade 3D dual GNSS		✓
Laser catcher		✓
Submarine Grade waterproof Cat Grade to 25 m (82')		✓
Operator Coaching		✓
CAB		
High-resolution LCD touch screen monitor	✓	
Heated seat with air-adjustable suspension (Deluxe only)	✓	
Heated and cooled seat with auto adjustable suspension (Premium only)	✓	
Cat Stick Steer		✓
Auxiliary relay		✓
ENGINE		
Three selectable modes: Power, Smart, and Eco	✓	
Auto engine speed control	✓	
Up to 4500 m (14,760 ft) altitude capability	✓	
52° C (126° F) high-ambient cooling capacity	✓	
-18° C (0° F) cold start capability	✓	
Double element air filter with integrated pre-cleaner	✓	
Remote disable	✓	
Cold start block heaters		✓
-32° C (-25° F) cold start capability		✓
Inlet air heater		✓
Engine oil sensor		✓

	Standard	Optional
BOOMS AND STICKS		
7.4 m (24'2") Long Reach boom		✓
6.9 m (20'3") Reach boom		✓
6.55m (21'6") Mass boom		✓
4.3 m (14'1") Long Reach stick		✓
3.9 m (12'10") Reach stick		✓
3.35 m (11'0") Reach stick		✓
3.0 m (9'10") Mass stick		✓
2.9 m (9'6") Reach stick		✓
2.5 m (8'2") Mass stick		✓
ELECTRICAL SYSTEM		
Maintenance-free 1,000 CCA batteries (x2)	✓	
Centralized electrical disconnect switch	✓	
LED lights	✓	
Premium surround lighting package		✓
SERVICE AND MAINTENANCE		
Integrated vehicle health management system	✓	
Grouped location of engine oil and fuel filters	✓	
S-O-S ports	✓	
Electric refueling pump with auto shutoff		✓
HYDRAULIC SYSTEM		
Boom and stick regeneration circuit	✓	
Electronic main control valve	✓	
Auto hydraulic oil warmup	✓	
Auto swing parking brake	✓	
High performance hydraulic return filter	✓	
Two speed travel	✓	
Bio hydraulic oil capability	✓	
Smart Boom		✓
Auto heavy lift		✓
Combined two-way auxiliary circuit with direct return		✓
Medium-pressure auxiliary circuit		✓
Quick coupler circuit		✓
Hydraulic efficiency monitoring		✓
SAFETY AND SECURITY		
E-Fence	✓	
Caterpillar One Key security system	✓	
Lockable external tool/storage box	✓	
Lockable door, fuel, and hydraulic tank locks	✓	
Lockable fuel drain compartment	✓	
Service platform with anti-skid plate and recessed bolts	✓	
Rear and right-hand-sideview cameras	✓	
Lockable disconnect switch	✓	
Inspection lighting	✓	
Cat Command remote control		✓
360° Visibility		✓
Operator Protective Guards (OPG)		✓

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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AEXQ3415-02
Replaces AEXQ3415-01
Build Number: 08C
(Aus-NZ, N Am, Europe,
Turkey, Chile)

