320

HYDRAULIC EXCAVATOR



Engine Power	
ISO 14396	129.4 kW (174 hp)
ISO 14396 (DIN)	176 hp (metric)
Operating Weight	22 500 kg (49,600 lb)

Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.

CAT®

NEXT GENERATION EXCAVATORS

Cat® next generation excavators offer you more choices than ever for your business.

+ MORE MODEL OPTIONS
+ MORE STANDARD TECHNOLOGIES
+ MORE PRICE POINTS

Ready to help you make your business stronger, Cat next generation excavators give you new ways to get the most work done at the lowest cost – so you put more money in your pocket.



THE CAT® 320

MOVING THE STANDARD HIGHER

The **Cat 320** Hydraulic Excavator raises the bar for efficiency and fuel economy in this size class. With the industry's highest level of standard factory technology, a cab made for operator comfort, plus lower fuel and maintenance costs, the 320 will help make your operation more productive and profitable.



INCREASE EFFICIENCY
UP TO 45%[1]

The Cat 320 offers the industry's highest level of standard factory-equipped technology, including Cat Grade with 2D, Grade with Assist, and Payload.

REDUCE FUEL CONSUMPTION
UP TO 25%[2]

A precise combination of lower engine speed and a large hydraulic pump delivers top performance while burning less fuel.

LOWER MAINTENANCE COSTS
UP TO 25%[3]

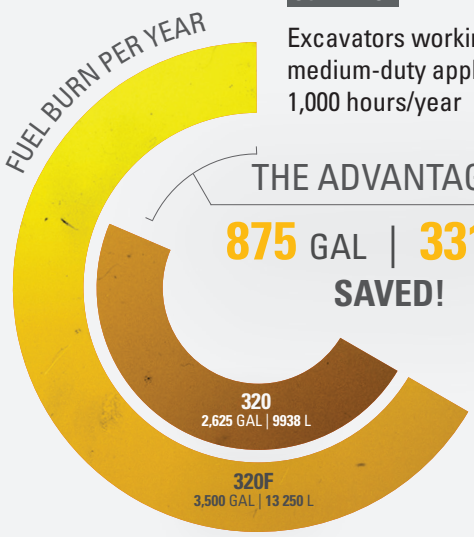
Extended and more synchronized maintenance intervals increase uptime and reduce costs compared to the 320F.

[1] Operator efficiency gains compared to traditional grading methods.
[2] Compared to the 320F.
[3] Cost reduction based on 12,000 hours of operation.

FUEL EFFICIENCY SAVINGS ADD UP

SCENARIO:

Excavators working in a medium-duty application, 1,000 hours/year



CALCULATION:

320F:
3.5 GAL/HR × 1,000 HR/YR = 3,500 GAL/YR
13.25 L/HR × 1000 HR/YR = 13 250 L/YR

320:
(3.5 GAL/HR × 75%) × 1,000 HR/YR = 2,625 GAL/YR
(13.25 L/HR × 75%) × 1000 HR/YR = 9938 L/YR



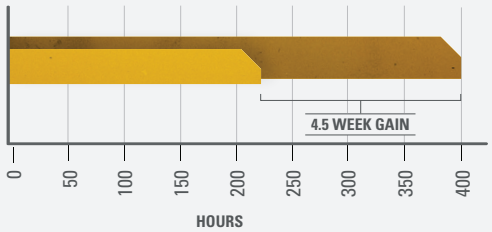
STANDARD CAT TECHNOLOGY

GETS JOBS DONE FASTER WITH LESS REWORK

Onboard Cat technology gives you the edge. Operators of all experience levels will dig, load, and grade with more confidence, speed, and accuracy. The result? Better productivity and lower costs.

WHAT WOULD YOU DO WITH 4.5 MORE WEEKS?

45% GAIN WITH TECHNOLOGY
means same amount of work done faster



PREVIOUS YEAR:
USING TRADITIONAL GRADING METHODS

400 hours/year, grading with stakes and checkers

CURRENT YEAR:
USING CAT® 320 WITH CAT TECHNOLOGY

220 hours/year, with standard Cat Grade



STANDARD, SIMPLE-TO-USE TECHNOLOGIES INCLUDE:

STANDARD CAT GRADE WITH 2D

Set your targets in the monitor and cut and fill to specifications without needing a grade checker. Program up to four depth and slope offsets to get to grade even more quickly – a real time saver on the jobsite.

STANDARD CAT GRADE WITH ASSIST

AUTO

Automated boom, stick, and bucket movements deliver more accurate cuts with less effort. The operator simply sets the depth and slope into the monitor and activates single-lever digging.

STANDARD CAT PAYLOAD

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. Automated tracking helps manage production and lower cost. The monitor's USB port lets you download your results from one shift all the way up to 30 days of work so you can manage your progress without needing an internet connection or VisionLink® subscription.

AVAILABLE OPTIONAL UPGRADES

Cat Grade with Advanced 2D and Cat Grade with 3D increase productivity and your profit potential. Cat Grade with Advanced 2D offers in-field design capability through an additional high-resolution touchscreen monitor. Cat Grade with 3D offers a choice of a single antenna global navigation satellite system (GNSS) for enhanced guidance or dual antenna GNSS for maximum grading efficiency.

All Cat Grade systems are compatible with radios and base stations from Trimble, Topcon, and Leica. Already invested in grade infrastructure? You can install grade systems from Trimble, Topcon, and Leica onto the machine.

CAT EQUIPMENT MANAGEMENT TECHNOLOGY
TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

Cat equipment management telematics technology helps take the complexity out of managing your jobsites – by gathering data generated by your equipment, materials, and people and serving it up to you in customizable formats.



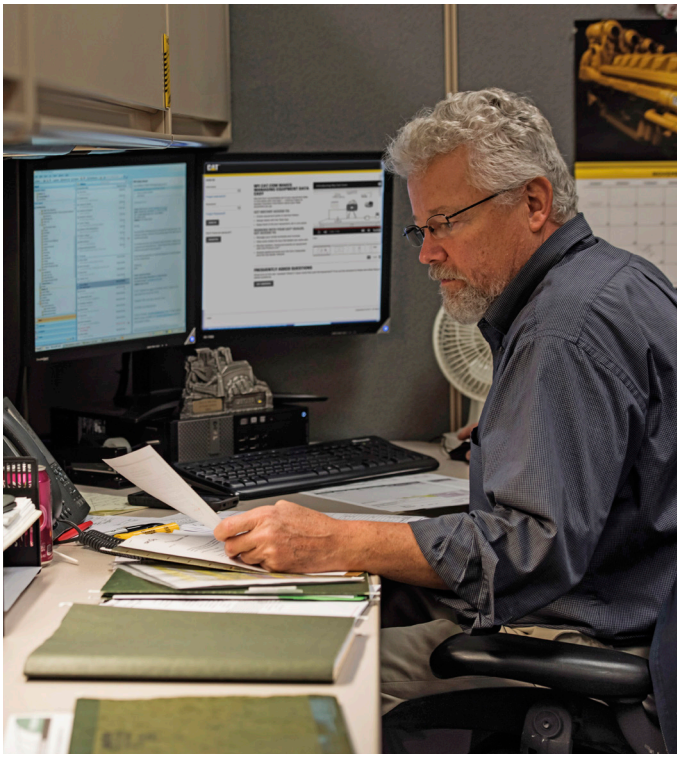
PRODUCT LINK™

Product Link™ collects data automatically and accurately from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.



VISIONLINK®

Access information anytime, anywhere with VisionLink – and use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your jobsite. With different subscription level options, your Cat dealer can help you configure exactly what you need to connect your fleet and manage your business without paying for extras you don't want. Subscriptions are available with cellular or satellite reporting (or both).



Remote Services is a suite of technologies that improve your jobsite efficiency.

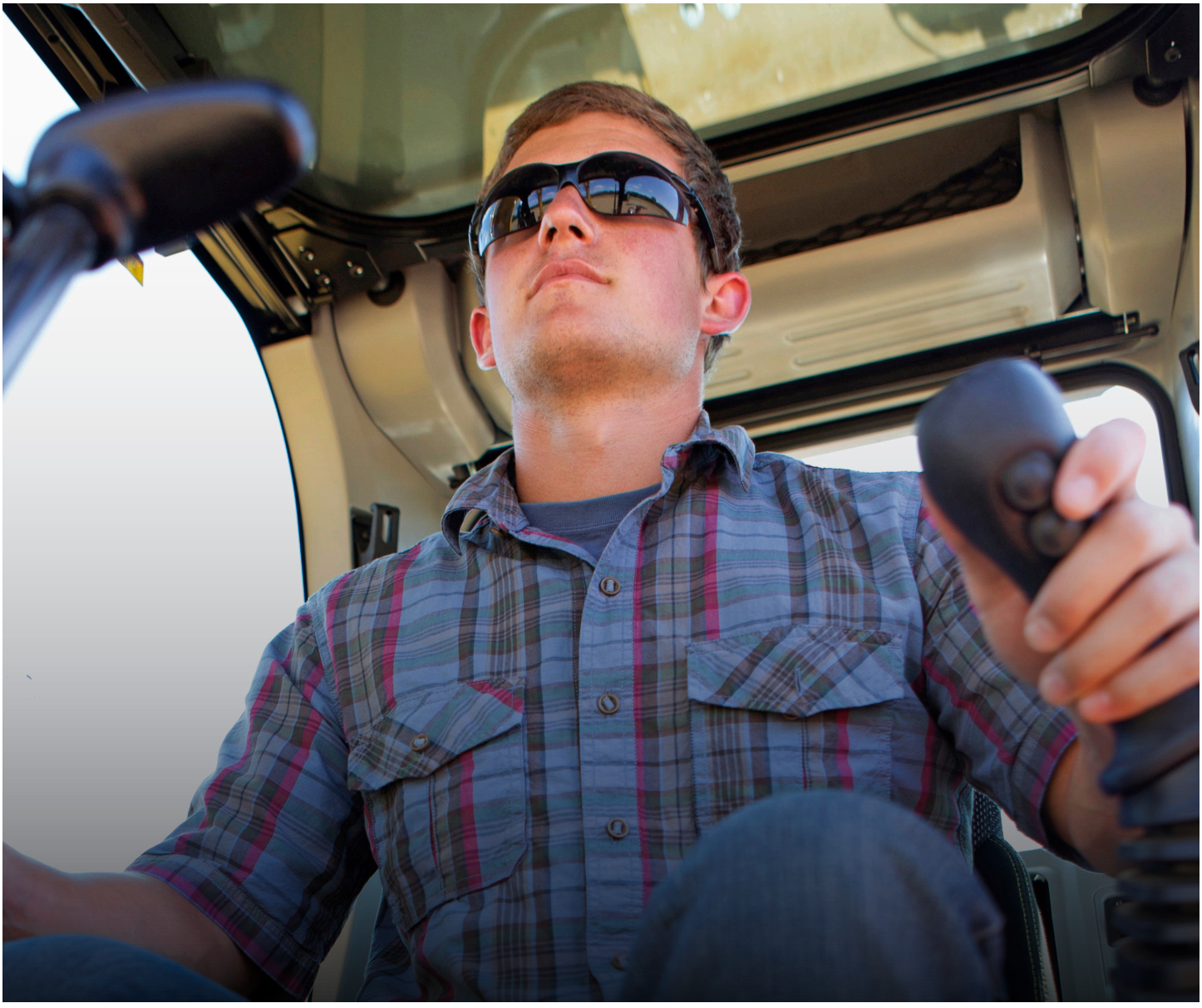
Remote Troubleshoot allows your Cat dealer to perform diagnostic testing on your connected machine remotely, pinpointing potential issues while the machine is in operation. Remote Troubleshoot ensures the technician arrives with the correct parts and tools the first time, eliminating additional trips to save you time and money.

Remote Flash updates onboard software without a technician being present, potentially reducing update time by as much as 50%. You can initiate the update when convenient, increasing your overall operating efficiency.

The **Cat app** helps you manage your assets – at any time – right from your smartphone. You can see your fleet location, hours, and other information you need to see. You will get critical alerts for required maintenance, and you can even request service from your local Cat dealer.

CAB TAKES THE HARD OUT OF WORK

Sites where excavators typically work are rugged and challenging. That's why it's important that the 320 cab protects the operator as much as possible from the fatigue, stresses, sounds, and temperatures of the job.



SEAT AND JOYSTICK CONSOLE REDUCE FATIGUE

Comfort and efficiency of movement keep operators productive and alert all shift long. The standard seat is wide and adjustable for operators of virtually any size. The deluxe cab package includes a heated air suspension seat; the premium seat is both heated and cooled.



TOUCHSCREEN MONITOR

Most machine settings can be controlled through the high-resolution 254 mm/10 inch touchscreen monitor. It offers 42 languages and is easy to reach from the seat – no twisting or turning.

SMART SETTINGS

Smart mode automatically adjusts power to meet work demand with maximum fuel efficiency. Auto dig boost increases power by up to 8% for better bucket penetration, shorter cycle times, and greater payloads. Need more lift during your shift? Turn on auto heavy lift and get 8% more power exactly when you need it for as long as you need it.

CUSTOMIZABLE JOYSTICKS

Joystick function can be customized through the monitor. Make moving the excavator much easier with 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. Adding 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.

KEYLESS PUSH START

The 320 uses a keyless push-button engine start. This adds security for the machine by using operator ID codes to limit and track machine access. Codes can be entered manually or via an optional Bluetooth® key fob.



A QUIET, SAFE WORKSPACE

BUILDS OPERATOR CONFIDENCE

CAB HELPS KEEP YOU SAFE

The ISO-certified rollover protective structure (ROPS) cab is sound-suppressed and sealed. The windows and lower front profile of the machine give outstanding visibility to the work area without the strain of constantly leaning forward.

ALL-AROUND VISIBILITY

Standard rearview and right-hand-sideview cameras keep operators aware of their surroundings at all times. An optional 360° visibility feature is also available.

EASY ACCESS, STORAGE, AND CONNECTIVITY

Convenience features include Bluetooth integrated radio, USB ports for charging and phone connectivity, 12V DC outlets and AUX port, storage in rear, overhead, and console compartments, and cup and bottle holders.



SAFETY FEATURES
PROTECT YOU AND OTHERS

GROUND-LEVEL DAILY MAINTENANCE

Daily maintenance checks can be performed with 100% of the points accessible from ground level, making maintenance faster, easier, and safer. Checkpoints include the engine oil dipstick, fuel water separator, fuel tank water and sediment drains, and cooling system coolant level check.

CAT COMMAND REMOTE CONTROL

Enhance jobsite safety by adding Cat Command to your fleet. The remote control system comes with everything you need to operate outside of the cab. Command console lets you operate up to 400 meters (437 yards) away. Command station lets you work virtually anywhere.

CAT DETECT PEOPLE DETECTION

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.

INSPECTION LIGHTING

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.

LIFT ASSIST

Lift assist helps you avoid tipping. With visual and auditory alerts, you'll know if your load is within the excavator's safe working range limits.





E-WALL SWING



E-WALL FORWARD



E-WALL CAB PROTECTION



E-WALL CEILING



E-WALL FLOOR

STANDARD E-FENCE TECHNOLOGY

Whether you are using a bucket and thumb combination or a hammer, grapple, or clamshell, E-Fence automatically stops excavator motion using boundaries you set in the monitor for the entire working envelope – above, below, sides, and front. E-Fence protects equipment from damage and reduces fines related to zoning or underground utility damage. Automatic boundaries even help prevent operator fatigue by reducing overswinging and digging.



LOWER MAINTENANCE COSTS

UP TO 20%

With extended and more synchronized maintenance intervals, you get more done at a lower cost compared to the 320F. Consolidated filter locations make service faster. Hydraulic, air, and fuel tank filters have increased capacity and longer life.

KEY MAINTENANCE COST REDUCTIONS INCLUDE:

+ Consolidated filter locations to reduce service time.
+ Oil and fuel filters with extended maintenance intervals.
+ Advanced air filter with double the dust holding capacity of the previous filter.

SERVICE REMINDERS MADE EASY

Boost productivity with proactive service reminders. Our new 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.



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.

BUCKETS



QUICK COUPLERS



GRAPPLES



TILTROTATOR



MULTI-PROCESSORS



HYDRAULIC HAMMERS



ATTACHMENT TRACKING MADE EASY

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 or the Cat app on your phone will locate the device automatically.

Save more time and energy with the available work tool recognition feature. A simple shake of the attached tool confirms its identity; it also ensures all the attachment settings are correct, so you can get to work quickly and efficiently.

DO HARD-TO-REACH WORK

With 360° rotation and 40° side-to-side tilting action, a Cat tiltrotator will help you get complex work done faster. A new system upgrade from the factory allows the tool to work with Cat 2D Grade, Assist, Payload, and E-Fence. It includes factory-fit joysticks, but uses the standard cab monitor to display the tool and engage its SecureLock™ so you don't need to spend money on an extra monitor. It also works seamlessly with other brands with no additional hardware required. All you have to do is simply select "Third Party Tiltrotator System Installation" in the monitor, do the calibration, and get to work.

PREVENT HAMMER WEAR AND TEAR

Protect your hammer tool from overheating and rapid wear. Auto hammer stop warns you after 15 seconds of continuous firing and then automatically shuts it off after 30 seconds – all to extend the tool's service life.

TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model	Cat® C4.4	
Engine Power		
ISO 14396	129.4 kW	174 hp
ISO 14396 (DIN)	176 hp (metric)	
Net Power		
ISO 9249	128.5 kW	172 hp
ISO 9249 (DIN)	175 hp (metric)	
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in³

- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.
- Engine speed at 1,800 rpm.

HYDRAULIC SYSTEM		
Main System – Maximum Flow – Implement	429 L/min	113 gal/min
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Equipment – Heavy Lift Mode	38 000 kPa	5,510 psi
Maximum Pressure – Travel	34 300 kPa	4,974 psi
Maximum Pressure – Swing	27 500 kPa	3,988 psi

SWING MECHANISM		
Swing Speed		11.25 rpm
Maximum Swing Torque	82 kN·m	60,300 lbf-ft

MACHINE WEIGHT		
Operating Weight	22 500 kg	49,600 lb
Reach boom, R2.9 m (9'6") stick, HD 1.19 m³ (1.56 yd³) bucket, 790 mm (31 in) triple grouser shoes, 4.2 mt (9,300 lb) counterweight.		
Operating Weight	21 800 kg	48,100 lb
Reach boom, R2.9 m (9'6") stick, HD 1.19 m³ (1.56 yd³) bucket, 600 mm (24 in) triple grouser shoes, 4.2 mt (9,300 lb) counterweight.		

SERVICE REFILL CAPACITIES		
Fuel Tank	345 L	86.6 gal
Cooling System	25 L	6.6 gal
Engine Oil	15 L	4.0 gal
Swing Drive (each)	12 L	3.2 gal
Final Drive (each)	5 L	1.3 gal
Hydraulic System (including tank)	234 L	61.8 gal
Hydraulic Tank	115 L	30.4 gal
Diesel Exhaust Fluid (DEF) Tank	39 L	10.3 gal

DIMENSIONS		
Boom	**Reach 5.7 m (18'8")**	
Stick	**Reach 2.9 m (9'6")**	
Bucket	**HD 1.19 m³ (1.56 yd³)**	
Shipping Height (top of cab)	2960 mm	9'9"
Handrail Height	2950 mm	9'9"
Shipping Length	9530 mm	31'3"
Tail Swing Radius	2830 mm	9'3"
Track Length	4450 mm	14'7"
Length to Center of Rollers	3650 mm	12'0"
Ground Clearance	470 mm	1'7"
Track Gauge	2380 mm	7'9"
Transport Width – 600 mm (24") shoes	2980 mm	9'9"
Transport Width – 790 mm (31") shoes	3170 mm	10'5"
Counterweight Clearance	1050 mm	3'5"

WORKING RANGES AND FORCES		
Boom	**Reach 5.7 m (18'8")**	
Stick	**Reach 2.9 m (9'6")**	
Bucket	**HD 1.19 m³ (1.56 yd³)**	
Maximum Digging Depth	6720 mm	22'1"
Maximum Reach at Ground Level	9860 mm	32'4"
Maximum Cutting Height	9370 mm	30'9"
Maximum Loading Height	6490 mm	21'4"
Minimum Loading Height	2170 mm	7'1"
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6550 mm	21'6"
Maximum Vertical Wall Digging Depth	5190 mm	17'0"
Bucket Digging Force (ISO)	150 kN	38,811 lbf
Stick Digging Force (ISO)	106 kN	23,911 lbf
Bucket Digging Force (ISO) – Auto Dig Boost R2.9 stick	163 kN	36,709 lbf
Stick Digging Force (ISO) – Auto Dig Boost R2.9 stick	115 kN	25,960 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 0.85 kg of refrigerant, which has a CO_2 equivalent of 1.216 metric tonnes.

STANDARD & OPTIONAL EQUIPMENT

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

CAB	STANDARD	OPTIONAL
Rollover protective structure (ROPS)	•	
Air-adjustable seat with heat (deluxe only)	•	
Auto-adjustable seat with heat and air ventilation (premium only)	•	
High-resolution 254 mm (10 inch) LCD touchscreen monitor	•	
Cat® Stick Steer		•
Auxiliary relay		•

CAT TECHNOLOGY	STANDARD	OPTIONAL
Cat Product Link™	•	
Remote Flash	•	
Remote Troubleshoot	•	
Cat Grade with 2D	•	
Cat Grade with Advanced 2D		•
Cat Grade with 3D single GNSS		•
Cat Grade with 3D dual GNSS		•
Cat Assist	•	
Cat Payload	•	
E-Fence	•	
Lift assist	•	
Auto dig boost	•	

ENGINE	STANDARD	OPTIONAL
Cat C4.4 twin turbo diesel engine	•	
Three selectable power modes	•	
Automatic engine speed control	•	
52° C (125° F) high-ambient cooling capacity	•	
-32° C (-25° F) cold start capability	•	
Double element air filter with integrated precleaner	•	
Reversing electric cooling fans	•	
Biodiesel capability up to B20	•	

HYDRAULIC SYSTEM	STANDARD	OPTIONAL
Boom and stick regeneration circuits	•	
Boom and stick lowering check valves		•
Auto warm up	•	
Auto two-speed travel	•	
Boom and stick drift reduction valve	•	
Hammer return filter circuit		•
Advanced tool control (two pump, one/two way high-pressure flow)	•[1]	•
Medium-pressure circuit		•
Quick coupler circuit for Cat pin grabber	•[2]	•

BOOMS AND STICKS	STANDARD	OPTIONAL
5.7 m (18'8") Reach boom		•
5.7 m (18'8") HD Reach boom		•
2.8 m (9'2") Stub + 3.3 m (10'10") Fore, VA boom		•
8.85 m (29'0") Super Long Reach boom		•
2.5 m (8'2") Reach stick		•
2.9 m (9'6") Reach stick		•
2.5 m (8'2") HD Reach stick		•
2.9 m (9'6") HD Reach stick		•
2.9 m (9'6") HD Thumb Ready Reach stick		•
6.28 m (20'7") Super Long Reach stick		•

UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
600 mm (24") triple grouser shoes		•
700 mm (28") triple grouser shoes		•
790 mm (31") triple grouser shoes		•
900 mm (35") triple grouser shoes		•
Tie-down points on base frame	•	
4.2 mt (9,300 lb) counterweight		•
4.7 mt (10,400 lb) counterweight		•

ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Two 1,000 CCA maintenance-free batteries	•	
Programmable time-delay LED working lights	•	
LED chassis light, left-hand/right-hand boom lights, cab lights	•	

SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Scheduled Oil Sampling (S·O·S℠) ports	•	
Ground-level and platform-level engine oil dipsticks	•	
Integrated vehicle health management system		•

SAFETY AND SECURITY	STANDARD	OPTIONAL
Cat Detect People Detection		•
Rearview and right-side-view cameras	•	
360° visibility		•
Ground-level engine shutoff switch	•	
Right-hand handrail and hand hold	•	
Signaling/warning horn	•	
Cat Command remote control		•
Swing alarm		•
Inspection lighting		•

[1] Australia, New Zealand, and Europe only.
[2] Europe only.

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

For additional information, refer to the Technical Specifications brochures available at www.cat.com or your Cat dealer.

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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AEXQ2329-07
Replaces AEXQ2329-06
Build Number: 07F
(Aus-NZ, Europe,
N Am, Turkey)