

320

HYDRAULIC EXCAVATOR



Engine Power
Operating Weight

121 kW (162 hp)
22 700 kg (50,100 lbs)

Cat® C4.4 ACERT™ Engine meets U.S. EPA Tier 4 Final and EU Stage IV emission standards with an aftertreatment system that requires no operator input or downtime.



NEXT GENERATION EXCAVATORS

The new line of Cat® Excavators was designed with a new approach to equipment families that gives you:

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

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



THE NEW CAT® 320

MOVING THE STANDARD HIGHER

THE CAT 320 raises the bar for efficiency and fuel economy in this size class. With the industry's highest level of standard factory technology, a new cab focused on operator comfort and productivity, plus lower fuel and maintenance costs, the 320 will set a new pace for productivity and profit in your operation.



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 15%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.

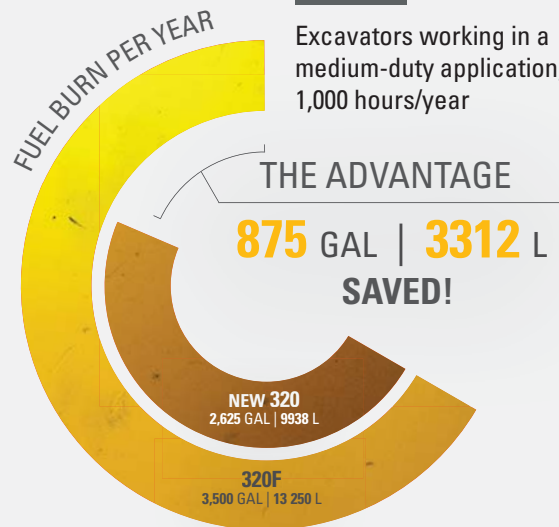
³ Cost reduction based on 12,000 hours of operation.



FUEL EFFICIENCY SAVINGS ADD UP

SCENARIO:

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



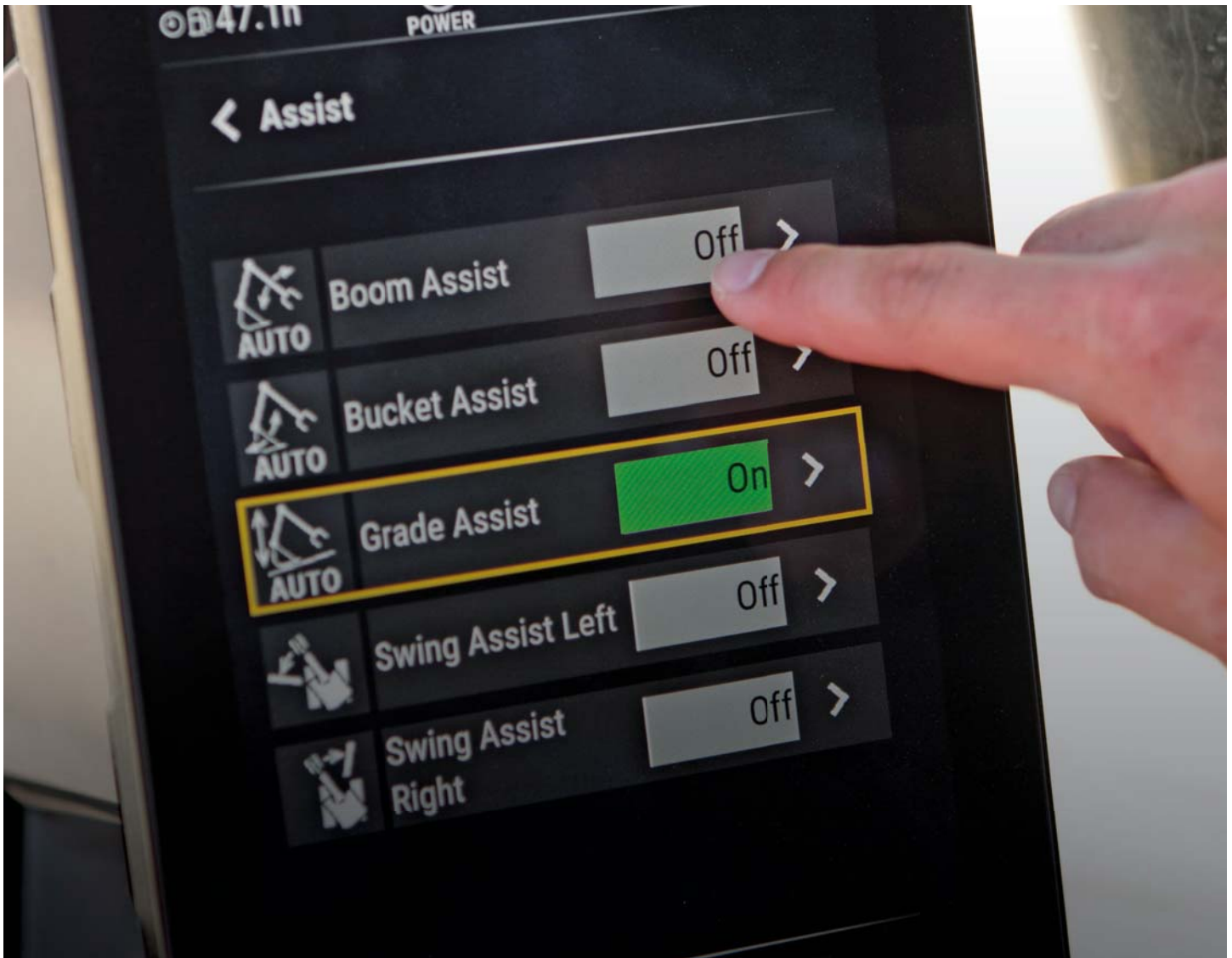
CALCULATION:

320F:

$3.5 \text{ GAL/HR} \times 1,000 \text{ HR/YR} = 3,500 \text{ GAL/YR}$
 $13.25 \text{ L/HR} \times 1000 \text{ HR/YR} = 13,250 \text{ L/YR}$

NEW 320:

$(3.5 \text{ GAL/HR} \times 75\%) \times 1,000 \text{ HR/YR} = 2,625 \text{ GAL/YR}$
 $(13.25 \text{ L/HR} \times 75\%) \times 1000 \text{ HR/YR} = 9938 \text{ L/YR}$



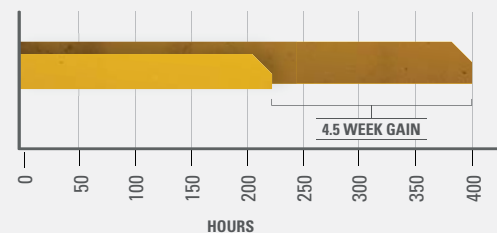
STANDARD CAT CONNECT TECHNOLOGY

**GETS JOBS DONE FASTER
WITH LESS REWORK**

Onboard Cat Connect 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 NEW CAT 320 WITH CAT CONNECT TECHNOLOGY
220 hours/year, with standard Cat Grade



INCREASE EFFICIENCY UP TO 45% **WITH CAT CONNECT TECHNOLOGY**

STANDARD, SIMPLE-TO-USE TECHNOLOGIES INCLUDE:



STANDARD CAT GRADE WITH 2D

Cat Grade with 2D helps operators reach grade faster. Operators cut and fill to exact specifications without overcutting. No grade checkers are needed so the work area is safer.



STANDARD CAT GRADE WITH ASSIST

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 technology delivers precise load targets with on-the-go weighing, which helps prevent over/under-loading and maximizes efficiency. Automated tracking helps manage production and lower cost.

AVAILABLE OPTIONAL UPGRADES

Cat Grade with Advanced 2D and Cat Grade with 3D increase productivity and expand grading capabilities. Grade with Advanced 2D adds in-field design capabilities through an additional 10-inch (254 mm) high-resolution touchscreen monitor. Grade with 3D adds GPS and GLONASS positioning for pinpoint accuracy.

REAL-TIME INFORMATION FROM CAT LINK TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

Cat Link hardware (Product Link™) and software (VisionLink®) work together to put equipment information at your fingertips. Get real-time access to information on every machine in your fleet on any jobsite—no matter the size of the operation or the brands of equipment you run.



PRODUCT LINK™

Track asset location, hours, fuel usage, diagnostic codes, idle time and more to improve your productivity and lower your operating costs. Cellular connectivity comes standard. Satellite connectivity is available.



VISIONLINK®

Using the online VisionLink interface, you can see a common, collective view of your information, making it easier to manage a mixed fleet and make informed decisions about your equipment.



MY.CAT.COM

You can also access Caterpillar and Cat dealer information at my.cat.com. My.cat.com gives you access to PM schedules, parts and service records, warranty coverage and more—with a single login. Plus, you can link directly to your VisionLink account.

NEW 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.



NEW SEAT AND JOYSTICK CONSOLE REDUCE FATIGUE

Comfort and efficiency of movement keep operators productive and alert all shift long. The new 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 8-inch/203 mm (or optional 10-inch/254 mm) touchscreen monitor. It offers 42 languages and is easy to reach from the seat—no twisting or turning.



NEW SMART MODE

The new Smart Mode (one of three power mode settings) automatically adjusts engine and hydraulic power for the highest fuel efficiency—less power for tasks such as swinging and more power for digging.



CUSTOMIZABLE JOYSTICKS

Joystick function can be customized through the monitor. Joystick pattern as well as response can be set to match operator preference. All preferences are saved with the operator ID and restored at log in.



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, via an optional Bluetooth® key fob or smartphone app.



A QUIET, SAFE WORKSPACE

BUILDS OPERATOR CONFIDENCE

ISO-CERTIFIED ROPS CAB

The ISO-certified 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

A standard rearview camera keeps operators aware of their surroundings at all times. An optional 360° Visibility feature is also available.

EASY ACCESS, CONNECTIVITY AND STORAGE

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

LOOK OUT FOR YOUR PEOPLE AND YOUR EQUIPMENT

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.

KEEP YOUR EXCAVATOR SECURE

Use your PIN code on the monitor, the optional Bluetooth key fob or your smartphone to enable the push-button starting feature.

STAY SAFE EVERY DAY

FACT:

#1 cause of construction accidents: **FALLS***

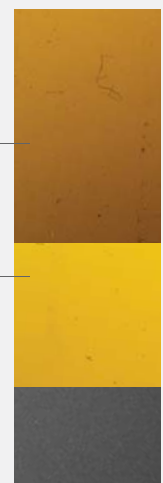
49% OF FALLS RESULT IN SERIOUS INJURY

30% OF FALLS RESULT IN DEATH

NEW 320

100% GROUND-LEVEL MAINTENANCE HELPS PREVENT FALLS

FALLS



*<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962179/>



PROTECTION IN
ALL DIRECTIONS



E-WALL SWING

E-WALL FORWARD

E-WALL CAB PROTECTION

E-WALL CEILING

E-WALL FLOOR

STANDARD 2D E-FENCE TECHNOLOGY

The standard 2D E-fence feature automatically stops excavator motion using boundaries you set in the monitor for the entire working envelope—above, below, sides and front. E-fence features protect equipment from damage and reduce fines related to zoning or underground utility damage. Automatic boundaries even help prevent operator fatigue by reducing over-swinging and over-digging.



**LOWER MAINTENANCE COSTS
UP TO 15%**

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.

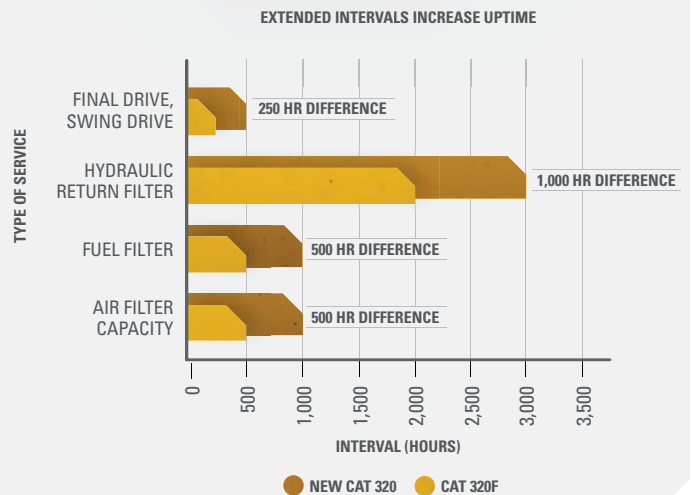
KEY MAINTENANCE COST REDUCTIONS INCLUDE:

- + Consolidated filter locations to reduce service time.
- + Multiple oil filters with extended maintenance intervals, plus a new higher dirt capacity hydraulic filter.
- + The new Cat air filter design results in a 100% increase in service life compared to our previous filter.
- + Maintenance intervals for the fuel system filters are synchronized for reduced downtime.



STOP LESS. WORK MORE.

**WITH THE NEW 320, YOU'LL USE
217 GAL | 820 L LESS OIL*
50 FEWER FILTERS***



*Based on 12,000 operating hours.

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



GRAPPLES



HYDRAULIC HAMMERS



MULTI-PROCESSORS



QUICK COUPLERS



RAKES



RIPPERS



SECONDARY PULVERIZERS



SHEARS



THUMBS



**VIBRATORY PLATE
COMPACTORS**



TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE	
Engine Model	Cat C4.4 ACERT
Gross Power – ISO 14396/SAE J1995	122 kW 164 hp
Net Power – ISO 9249/SAE J1349	121 kW 162 hp
Engine RPM	
Operation	1,650 rpm
Travel	1,800 rpm
Bore	105 mm 4 in
Stroke	127 mm 5 in
Displacement	4.4 L 269 in ³

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	26 800 kPa 3,886 psi

MACHINE WEIGHT	
Operating Weight	22 700 kg 50,100 lb
5.7 m (18'8") reach boom, 2.9 m (9'6") reach stick, HD 1.19 m ³ (1.56 yd ³) bucket, 790 mm (31") shoes, 4.2 mt (9,300 lb) counterweight	

SERVICE REFILL CAPACITIES	
Fuel Tank	364 L 96.2 gal
Cooling System	25 L 6.6 gal
Engine Oil	15 L 4.0 gal
Swing Drive (each)	5 L 1.3 gal
Final Drive (each)	5 L 1.3 gal
Hydraulic System (including tank)	218 L 57.6 gal
Hydraulic Tank	115 L 30.4 gal
DEF Tank	30 L 7.9 gal

DIMENSIONS	
Boom	Reach 5.7 m (18'8")
Stick	Reach 2.9 m (9'6")
Bucket	1.19 m³ (1.56 yd³)
Shipping Height (top of cab)	2960 mm 9'9"
Handrail Height	2950 mm 9'8"
Shipping Length	9530 mm 31'3"
Tail Swing Radius	2830 mm 9'3"
Length to Center of Rollers	3650 mm 12'0"
Ground Clearance	470 mm 1'7"
Track Gauge	2380 mm 7'9"
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	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 21'3"
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 33,721 lbf
Stick Digging Force (ISO)	106 kN 23,830 lbf
Bucket Digging Force (SAE)	134 kN 30,124 lbf
Stick Digging Force (SAE)	103 kN 23,155 lbf

CAB FEATURES

FEATURE	DESCRIPTION	COMFORT	DELUXE	PREMIUM
ROPS	Standard Sound Suppression	●	●	x
	Advanced Sound Suppression	x	x	●
High-Resolution Monitor	203 mm (8 inch) Touchscreen	●	●	●
	254 mm (10 inch) Touchscreen	x	○	○
Keyless Push-to-Start	Engine Control	●	●	●
Jog Dial, Shortcut Keys	Monitor Control	●	●	●
Air Conditioning	Automatic Bi-level	●	●	●
Suspension Seat with Seat Belt	Adjustable	●	x	x
	Air Adjustable	x	●	●
	Automatic	x	x	●
	Heated	x	●	x
Console	Heated & Cooled	x	x	●
	3 Fixed Heights	●	x	x
	Infinitely Adjustable	x	●	●
Bluetooth Integrated Radio	Tilt-Up Left Side	x	●	●
	With USB Ports	●	●	●

● - standard ○ - optional x - not available

STANDARD & OPTIONAL EQUIPMENT

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

320 CAB	STANDARD	OPTIONAL
ROPS, standard sound suppression	•	
Mechanically adjustable seat	•	
Air-adjustable seat with heat <i>Deluxe only</i>		•
High-resolution 203 mm (8 inch) LCD touchscreen monitor	•	
High-resolution 254 mm (10 inch) LCD touchscreen monitor		•
CAT CONNECT TECHNOLOGY	STANDARD	OPTIONAL
Cat Product Link	•	
Cat Grade with 2D	•	
Cat Grade with Advanced 2D <i>not available on SLR</i>		•
Cat Grade with 3D <i>not available on SLR</i>		•
Cat Grade with Assist	•	
Cat Payload	•	
ENGINE	STANDARD	OPTIONAL
Three selectable power modes	•	
Auto engine idle shutdown	•	
46° C (115° F) ambient cooling capacity	•	
52° C (125° F) high-ambient cooling capacity		•
-32° C (-25° F) cold start capability	•	
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 hydraulic warm up	•	
Auto two-speed travel	•	
Boom and stick drift reduction valve	•	
Hammer return filter circuit		•
Combined flow/high-pressure auxiliary circuit		•
Medium-pressure circuit		•
Quick coupler circuit for Cat Pin Grabber		•

BOOM AND STICK	STANDARD	OPTIONAL
5.7 m (18'8") reach boom, 2.9 m (9'6") stick	•	
8.85 m (29'0") SLR boom, 6.28 m (20'7") SLR 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	•	
4200 kg (9,300 lb) counterweight for HD boom and stick		•
4700 kg (10,400 lb) counterweight for SLR boom and stick		•
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
Sampling ports for Scheduled Oil Sampling (S-O-S SM)	•	
Ground-level and platform-level engine oil dipsticks	•	
Remote flash	•	
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rearview camera	•	
Right-hand-side camera	•*	•*
Right-hand mirror	•	
360° Visibility		•
Ground-level engine shutoff switch	•	
Right-hand handrail and hand hold	•	
Signaling/warning horn	•	

*Europe standard; other regions optional.

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 for the 320 GC, 320 and 323 models available at www.cat.com or your Cat dealer.

BUILT FOR IT.™

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at www.cat.com

© 2017 Caterpillar. All Rights Reserved.

VisionLink is a trademark of Trimble Navigation Limited, registered in the United States and in other countries.

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, BUILT FOR IT, their respective logos, "Caterpillar Yellow," the "Power Edge" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.
www.cat.com www.caterpillar.com

AEXQ2329
Build Number: 07A

