

# 320

## HYDRAULIC EXCAVATOR



**Engine Power**  
**Operating Weight**

117 kW (157 hp)  
22 400 kg (49,400 lb)

Cat® C7.1 Engine meets China III Nonroad emission standards (U.S. EPA Tier 3 and EU Stage IIIA).



## 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%<sup>1</sup>

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 20%<sup>2</sup>

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

## LOWER MAINTENANCE COSTS UP TO 20%<sup>3</sup>

Extended and more synchronized maintenance intervals increase uptime and reduce costs compared to the 320D2.

<sup>1</sup> Operator efficiency gains compared to traditional grading methods.

<sup>2</sup> Compared to the 320D2.

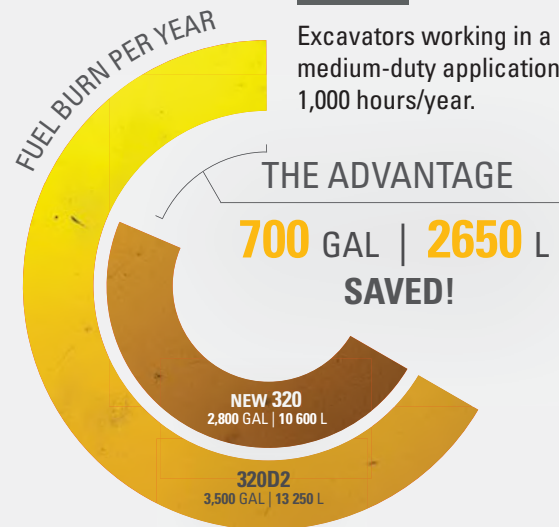
<sup>3</sup> Cost reduction based on 12,000 hours of operation.



## FUEL EFFICIENCY SAVINGS ADD UP

### SCENARIO:

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



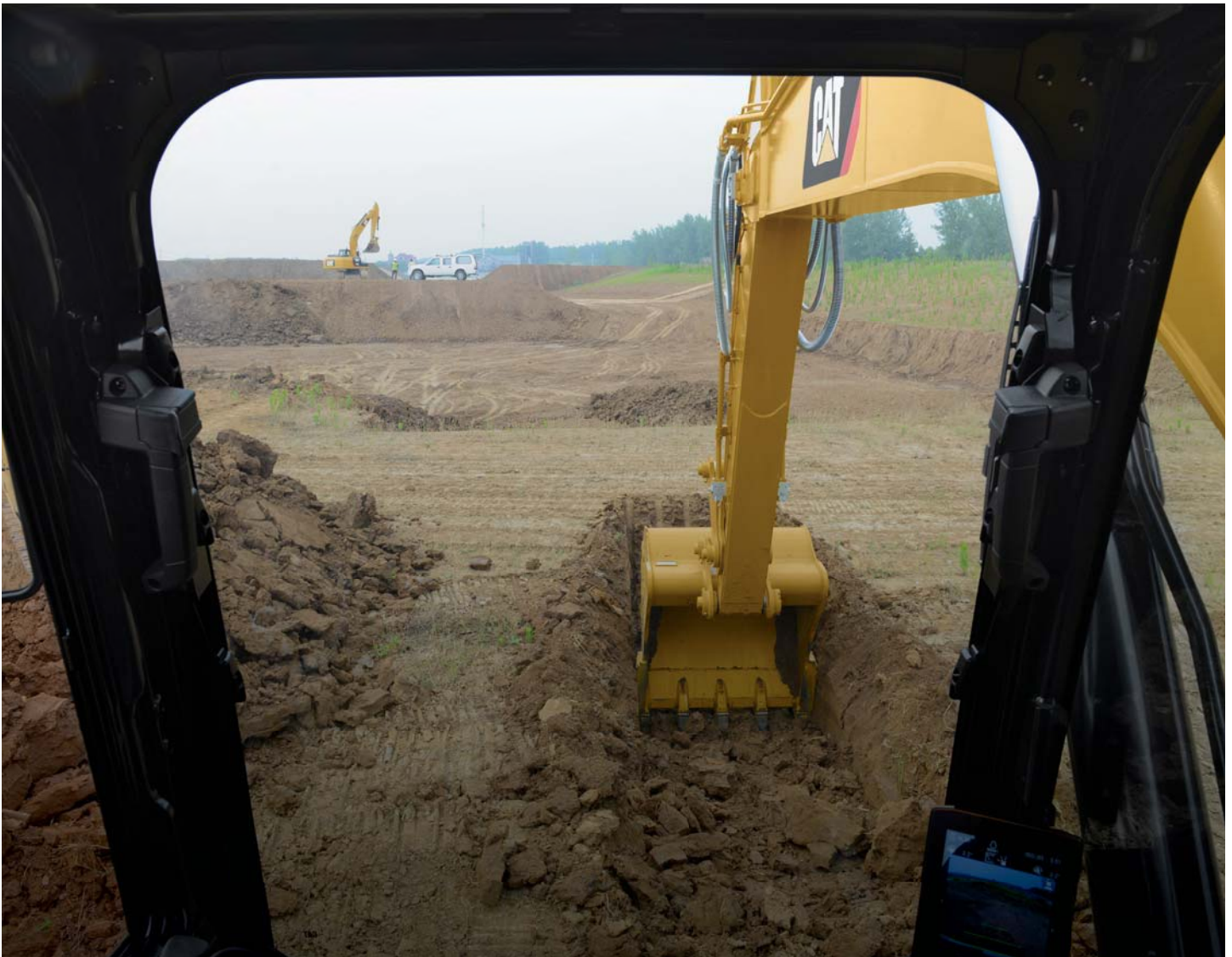
### CALCULATION:

#### 320D2:

3.5 GAL/HR X 1,000 HR/YR = 3,500 GAL/YR  
13.25 L/HR X 1000 HR/YR = 13,250 L/YR

#### NEW 320:

(3.5 GAL/HR X 80%) X 1,000 HR/YR = 2,800 GAL/YR  
(13.25 L/HR X 80%) X 1000 HR/YR = 10,600 L/YR



# STANDARD CAT CONNECT TECHNOLOGY

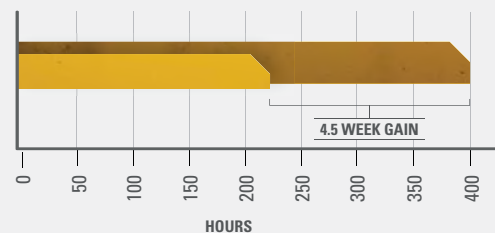
**GETS JOBS DONE FASTER  
WITH LESS REWORK**

**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. You can program up to four of your most commonly used target depth and slope off sets so you can get to grade with ease—a real time saver on the job site. Best of all, no grade checkers are needed so the work area is safer.



#### 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.



#### 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.

### 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. Use the excavator's onboard cell technology to quickly connect to 3D services like Trimble Connected Community or Virtual Reference Station.

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

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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](http://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.



### **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

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## 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.

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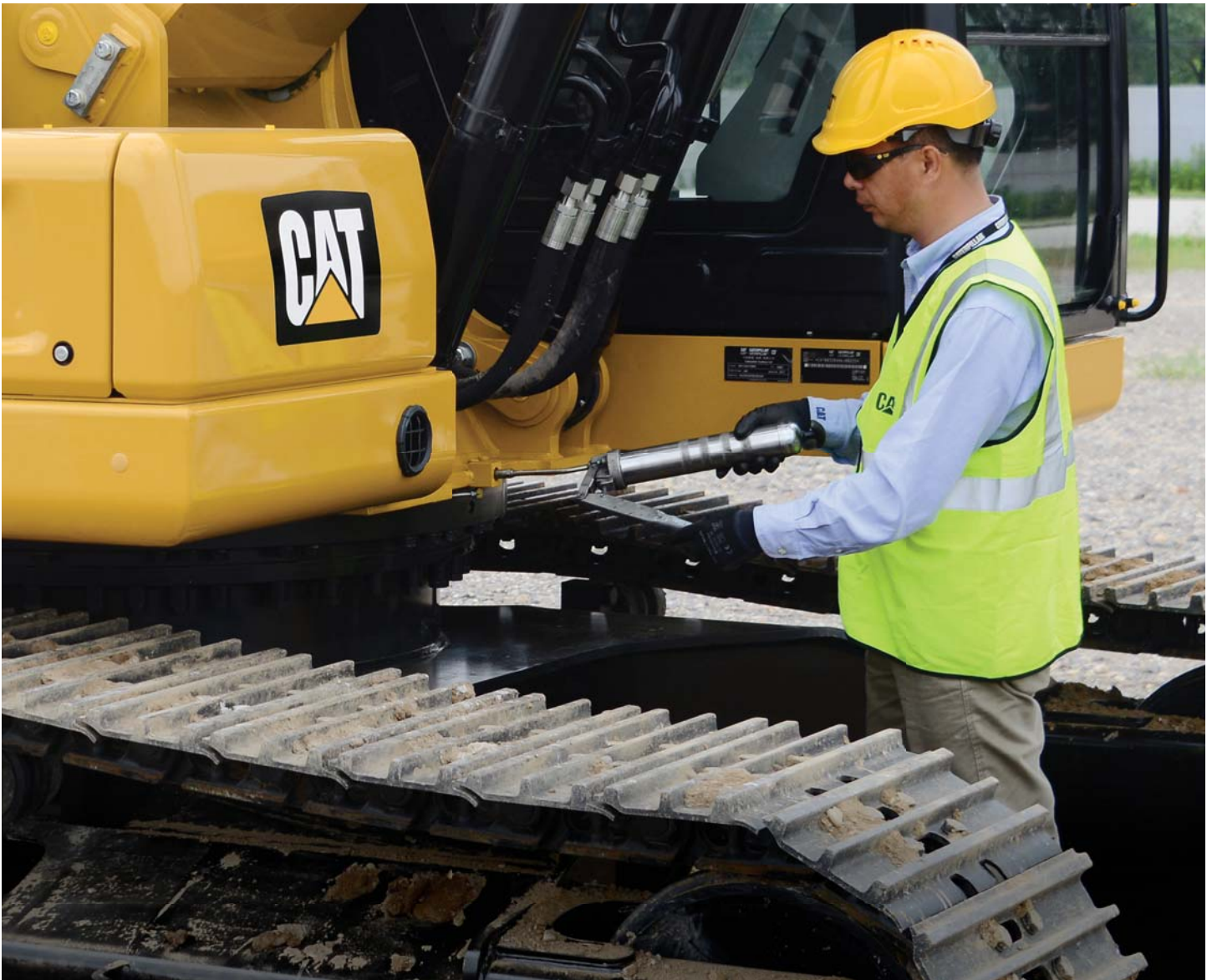
## ALL-AROUND VISIBILITY

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

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## 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.

### 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.

## STAY SAFE EVERY DAY

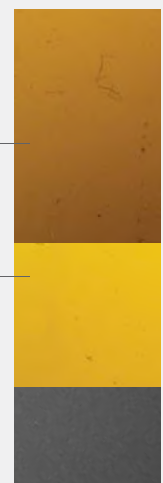
### FACT:

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

**49%** OF FALLS RESULT IN SERIOUS INJURY

**30%** OF FALLS RESULT IN DEATH

### FALLS



### NEW 320

**100%** GROUND-LEVEL MAINTENANCE HELPS PREVENT 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 20%**

With extended and more synchronized maintenance intervals, you get more done at a lower cost compared to the 320D2. 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.
- + Fuel filters are synchronized to be changed at 1,000 hours—double the interval from the previous filters.

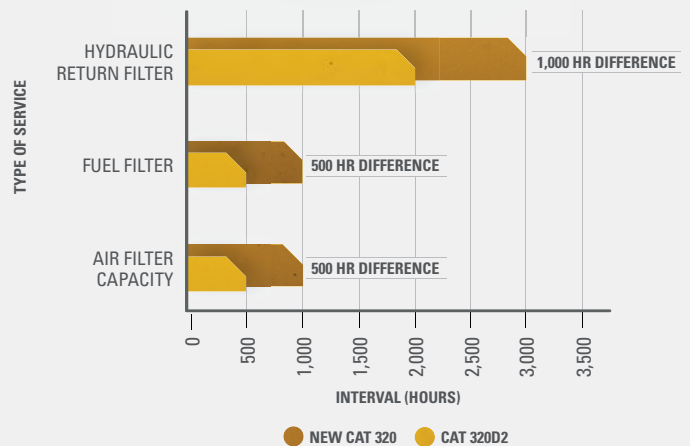


**STOP LESS. WORK MORE.**

WITH THE NEW 320, YOU'LL USE

**64 FEWER FILTERS\***

EXTENDED INTERVALS INCREASE UPTIME



\*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**



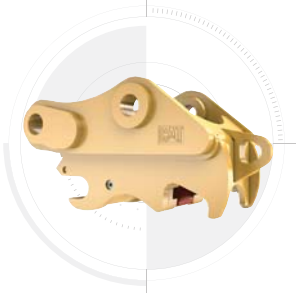
**HYDRAULIC HAMMERS**



**MULTI-PROCESSORS**



**QUICK COUPLERS**



**RAKES**



**RIPPERS**



**SECONDARY PULVERIZERS**



**SHEARS**



**THUMBS**



**VIBRATORY PLATE  
COMPACTORS**



Did you know you can find your attachments quickly and easily? The excavator's onboard Bluetooth reader can search for any work tool equipped with Cat asset tracking devices up to a range of 60 meters (200 feet).

# TECHNICAL SPECIFICATIONS

See [cat.com](http://cat.com) for complete specifications.

ENGINE		
Engine Model	Cat C7.1	
Engine Power – ISO 9249	117 kW	157 hp
Engine Power – ISO 14396	118 kW	158 hp
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in <sup>3</sup>
HYDRAULIC SYSTEM		
Main System – Maximum Flow (Implement)	429 L/min	113 gal/min
Maximum Pressure – Equipment	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	22 400 kg	49,400 lb
5.7 m (18'8") HD reach boom, 2.9 m (9'6") HD reach stick, HD 1.19 m <sup>3</sup> (1.56 yd <sup>3</sup> ) bucket, 600 mm (24") triple grouser shoes.		
SERVICE REFILL CAPACITIES		
Fuel Tank	345 L	86.6 gal
Cooling System	25 L	6.6 gal
Engine Oil	25 L	6.6 gal
Swing Drive (each)	5 L	1.3 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

DIMENSIONS		
<b>Boom</b>	<b>Reach 5.7 m (18'8")</b>	
<b>Stick</b>	<b>Reach 2.9 m (9'6")</b>	
<b>Bucket</b>	<b>1.19 m<sup>3</sup> (1.56 yd<sup>3</sup>)</b>	
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	9'4"
Track Length	4450 mm	14'7"
Length to Center of Rollers	3650 mm	12'0"
Ground Clearance	470 mm	1'6"
Track Gauge	2380 mm	7'9"
Transport Width – 600 mm (24") Shoes	2980 mm	9'9"
Counterweight Clearance	1050 mm	3'5"
WORKING RANGES AND FORCES		
<b>Boom</b>	<b>Reach 5.7 m (18'8")</b>	
<b>Stick</b>	<b>Reach 2.9 m (9'6")</b>	
<b>Bucket</b>	<b>1.19 m<sup>3</sup> (1.56 yd<sup>3</sup>)</b>	
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	33,811 lbf
Stick Digging Force (ISO)	106 kN	23,911 lbf

# CAB FEATURES

FEATURE	DESCRIPTION	COMFORT	DELUXE
ROPS	Standard Sound Suppression	●	●
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
	Air Adjustable	x	●
	Heated	x	●
Console	3 Fixed Heights	●	x
	Infinitely Adjustable	x	●
	Tilt-Up Left Side	x	●
Bluetooth Integrated Radio	With USB Ports	●	●

● - standard ○ - optional x - not available

# STANDARD & OPTIONAL EQUIPMENT

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

CAB	STANDARD	OPTIONAL
ROPS, standard sound suppression	•	
Mechanically adjustable seat	•	
Air-adjustable seat with heat (Deluxe only)		•
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 (not available on SLR)		•
Cat GRADE with 3D (not available on SLR)		•
Cat GRADE with Assist	•	
Cat PAYLOAD	•	
2D E-fence	•	
Remote Flash capability	•	
Remote Troubleshoot capability	•	
ENGINE	STANDARD	OPTIONAL
Three selectable power modes	•	
One-touch low idle with auto engine speed control	•	
Auto engine idle shutdown	•	
52° C (125° F) high-ambient cooling capacity	•	
-18° C (0° F) cold start capability	•	
-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	•	
Auto hydraulic warm up	•	
Auto two-speed travel	•	
Boom and stick drift reduction valve	•	
Hammer return filter circuit		•
Slider joysticks	•	
Tool Control (two pump, one/two way high-pressure flow)		•
Basic Tool Control (one pump, one way high-pressure flow)		•
Quick coupler circuit		•

BOOMS AND STICKS	STANDARD	OPTIONAL
5.7 m (18'8") HD reach boom, 2.9 m (9'6") HD reach stick	•	
5.7 m (18'8") HD reach boom, 2.5 m (8'2") HD reach stick		•
8.85 m (29'0") SLR boom, 6.28 m (20'7") SLR stick		•
UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
600 mm (24") double grouser shoes		•
600 mm (24") triple grouser shoes		•
700 mm (28") triple grouser shoes		•
790 mm (31") triple grouser shoes		•
Tie-down points on base frame	•	
3700 kg (8,157 lb) counterweight	•	
4200 kg (9,300 lb) counterweight for HD base frame		•
4700 kg (10,400 lb) counterweight for SLR boom and stick		•
ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Two 1,000 CCA maintenance-free batteries	•	
Four 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 <sup>SM</sup> )	•	
Ground-level and platform-level engine oil dipsticks	•	
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rearview camera	•	
Right-hand mirror	•	
Right-side-view camera		•
360° visibility		•
Lift Assist	•	
Cat asset tracker	•	
Ground-level engine shutoff switch	•	
Right-hand handrail and hand hold	•	
Signaling/warning horn	•	

**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](http://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](http://www.cat.com)

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AEXQ2332-02  
Replaces AEXQ2332-01  
Build Number: 07B

