ULSTER COUNTY RESOURCE RECOVERY AGENCY

RESOLUTION NO. 2639

RE: Authorizing and Approving the Purchase of a Caterpillar 320 Excavator

WHEREAS, The Ulster County Resource Recovery Agency (the "Agency") is engaged in Solid Waste Management and Recycling in Ulster County, and

WHEREAS, the Agency requires a new Caterpillar 320 Excavator (Exhibit A) to perform the work required to carry out the duties of Solid Waste Management, and

WHEREAS, the Agency staff has recommended the purchase of the equipment through the Sourcewell Statewide Contract in compliance with the New York State bidding laws as the Agency is allowed to piggyback under New York State General Municipal Law Section 103; see attached exhibit describing the equipment to be purchased, and

NOW, THEREFORE, BE IT

RESOLVED, that the Ulster County Resource Recovery Agency does hereby authorize and approve the purchase of the equipment as described in the attached documents, and be it

FURTHER RESOLVED, that the Executive Director and Agency staff are hereby authorized to take all steps necessary to complete the purchase of the Equipment, and be it,

FURTHER RESOLVED, that this Resolution shall take effect immediately.

Moved by:		Seconded by:	
Vote: Ayes	Nays	Absent	
Date: December 19, 2024			

Financial Impact: \$274,000



Sep 09, 2024

ш	STER	COUNTY	RESOURCE	RECOVERY
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PO BOX 6219 KINGSTON, New York 12402

Charlie Whittaker,

Thank you for this opportunity to quote Caterpillar products for your business needs. We are pleased to quote the following for your purchase consideration.

One (1) New Caterpillar Inc Model: 320 Excavator with all standard equipment in addition to the additional specifications listed below:

STOCK NUMBER:

SERIAL NUMBER:

YEAR:

SMU:

We appreciate your interest in H.O. Penn Machinery Co. Inc. and Caterpillar products for your business needs. This quotation is valid for 30 days, and is subject to prior sale. If there are any questions, please do not hesitate to contact me.

Regards,

Scott Cortright Machine Sales Representative scortright@hopenn.com (845) 206-2557 One (1) New Caterpillar Inc Model: 320 Excavator with all standard equipment in addition to the additional specifications listed below:

STANDARD EQUIPMENT

POWERTRAIN -C4.4e twin turbo Tier 4 Final diesel -engine -Electric fuel priming pump -Reversible electric cooling fans -Two-stage fuel filtration system with -water separator and indicator -Sealed double element air filter with -integrated pre-cleaner -Biodiesel capable (up to B20) -

UNDERCARRIAGE -Grease lubricated track link -Tie down points on base frame -(ISO 15818 compliant) -

HYDRAULICS -Electronic main control valve -Auto warm up -Tandem type electronic main pump -Boom and stick regeneration circuits -Automatic two speed travel -Boom and stick drift reduction valve -Element type main hydraulic filter -

ELECTRICAL -Maintenance free battery -Centralized electrical disconnect switch -CAT product link -After engine shut down programmable -time delay LED working -lights: -One chassis mounted, one LH boom mounted -

OPERATOR ENVIRONMENT -Sound suppressed ROPS cab (ISO 12117-2 -compliant) with viscous mount -Increased rear window size -as emergency exit -Openable tempered front upper windshield -w/assist device and removable tempered -lower windshield with in cab storage -bracket -2 inch (51mm) orange seat belt -Upper radial wiper for 70/30 -Automatic bi-level air conditioner -with pressurized function -Washable floor mat -Beacon ready -2 x 12V DC outlet and USB port -Dome and lower LED interior lights, -coat hook, cup holder, console storage -rear storage with net, and overhead -storage with net -(Comfort cab) - for Japan --Mechanical suspension comfort seat -w/ headrest, console height adjustment -w/ tools, arm rest angle adjustment --Fixed left side console --Openable steel hatch -(Deluxe cab) --Air suspension deluxe seat w/ headrest -w/ 2 step seat heater, console height -adjustment w/o tools, arm rest height -and angle adjustment --Tilt up left side console --Openable polycarbonate hatch for 2P -windshield -

SAFETY AND SECURITY -RH hand rail and hand hold -(ISO 2867 compliant) -Service platform with anti-skid plate -and countersunk bolts -Hydraulic lock out lever neutralizes -all controls -Ground level accessible secondary engine -shutoff switch in cab -Signaling / warning horn -

OTHER STANDARD EQUIPMENT -Side entry to service platform -Grouped location for engine oil -and fuel filters -Ground level 2nd dipstick for engine oil -Sampling ports for scheduled oil -Sampling (S.O.S) -Remote flash -

MACHINE.	SPECIFICATIONS
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320 07F HEX AM-N CFG4B

633-9119

578-6723 COMMON ARRANGEMENT

134-8875 GUARD, SWIVEL, STD

134-8875

489-2950 LINES, FRONT, STD

490-4847 ALTERNATOR, 145A C4.4 ENGINE

490-7715 PEDAL, STRAIGHT TRAVEL

490-7715

493-9765 VALVE, FINE SWING

494-4985 CYLINDER, BOOM

506-5013 BATTERIES, 2

506-5013

Page 2 of 5

507-4834 FRAME, SWING, HD	
511-9428 MONITOR, 10"	511-9 4 28
513-3210 BOOM TUBE W/EOU	
513-3214 SENSOR, PRESSURE, EOU	520-9418
520-9418 FILM, OPERATING PATTERN, 2WAY	
524-8272 RECEIVER, BLUETOOTH	
525-7678 MACHINE ECM	
573-5699 UNDERCARRIAGE HD, W/SD ROLLER	
575-2650 COUNTERWEIGHT, 4.7MT (10,360LB)	
577-3907 LIGHT, CHASSIS	
577-7865 LINES, AIR CONDITIONER	
587-1510 SWIVEL, W/SWING SENSOR	
	592-8316
592-8316 TRAVEL, ALARM	
599-0934 SWING DRIVE	609-5071
609-5071 CAB, DELUXE	
621-1636 BEARING, SWING, HD	
626-4681 LINES, SWIVEL W/SWING SENSOR	0P-9003
LANE 3 ORDER	577-5865
BOOM, REACH 18'8" HD	490-7676
STK, R9'6" HD W/THUMB BRACKET	492-8537
LINKAGE, BKT, B1 W/EYE GRADE	586-3636
CYLINDER, STICK	490-4179
CYLINDER, BKT, B1	521-3306
TRACK, 31" TG	526-8766
GUARD, TRACK GUIDE, SEGMENTED	633-9178
HYDRAULIC PKG, NO TOOL W/ HL	528-6835
JOYSTICKS, VERTICAL SLIDER	493-4907
LINES, DRAIN, STD	489-2952
SUCTION LINE, PUMP, STD CAMERA, 360 VISIBILITY FOGS	624-7715
LIGHTS, CAB, FOGS	577-3857
LIGHTS PKG, BOOM LH & RH	579-5428
WIPER, RADIAL W/LOWER	484-8022
FLOORMAT, STD	484-8025
INTEGRATED RADIO, W/O DAB	502-7166
GRADE 2D ASSIST & PAYLOAD	624-7796
GRADE SENSOR, REACH BOOM	621-4821
GRADE SENSOR, R9'6" STICK	621-4808
PROD LINK, PLE683/PLE783 RADIO	594-9051
NETWORK MANAGER, A6N1	555-7286
MIRROR, CAB, GUARD FALLING	327-6553
GUARD, BOTTOM, HD	576-9412
GUARD, TRAVEL MOTOR, HD	488-9288
FILM, EXTERIOR, ANSI	578-2907
FILM, INTERIOR, ANSI	573-4351
FILM, STICK WARNING, ANSI	567-3815
FILM, EMC	528-4738
FILM, ROPS	567-3816

SERIALIZED TECHNICAL MEDIA KIT STARTING AID, ETHER LIGHTS PKG, SURROUNDING 2D LIGHT, INSPECTION SUN SCREEN, REAR JOYSTICK STEER + AUX RELAY PKG MIRROR, RH GUARD, FALLING OBJECT (FOGS) STORAGE TRAY HANDHOLDS, RAD COMPARTMENT	421-8926 511-5861 648-1402 609-0296 488-6450 617-0334 505-7176 578-9808 576-9463 508-9617 490-7705
HANDHOLDS, RAD COMPARTMENT QUICK DRAINS READY	
KIT, SIDE RUBBER BUMPER GRAPPLE, TRASH 3.60YD3	528-3290 141-0732

WARRANTY & COVERAGE

Standard Warranty:

12 Months Full Machine

Extended Coverage:

84 month/10,000 hour Premier warranty

SELL PRICE	\$319,000.00
LESS GROSS TRADE ALLOWANCE	(\$45,000.00)
NET BALANCE DUE	\$274,000.00
AFTER TAX BALANCE	\$274,000.00

PRICE REFLECTS NEW YORK STATE BID/SOURCEWELL DISCOUNT NYS Contract: PC69406 Sourcewell Contract: 032119-CAT

TRADE-INS

1111 Millian Control of the Control				
n.m., .,1.,1	 R.M 1	Carlel Mercahor	Year	Trade
Model	Make	Serial Number		Allowance
EC220EL	VME (VOLVO) (VM)	314027	2019	\$45,000.00

F.O.B/TERMS:

Kingston

320
HYDRAULIC EXCAVATOR



121 kW (162 hp) 22 500 kg (49,600 lb)

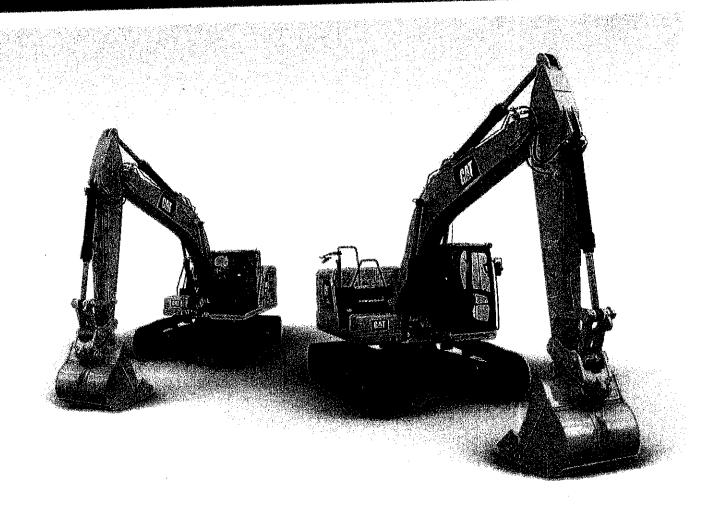
n that requires no operator input or downtime.

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.



THENEW 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.

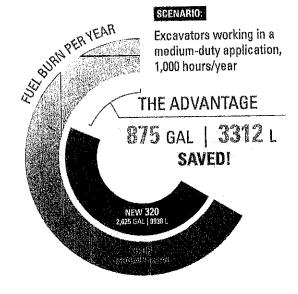
REDUCE FUEL CONSUMPTION UP TO 25%2

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.





CALCULATION:

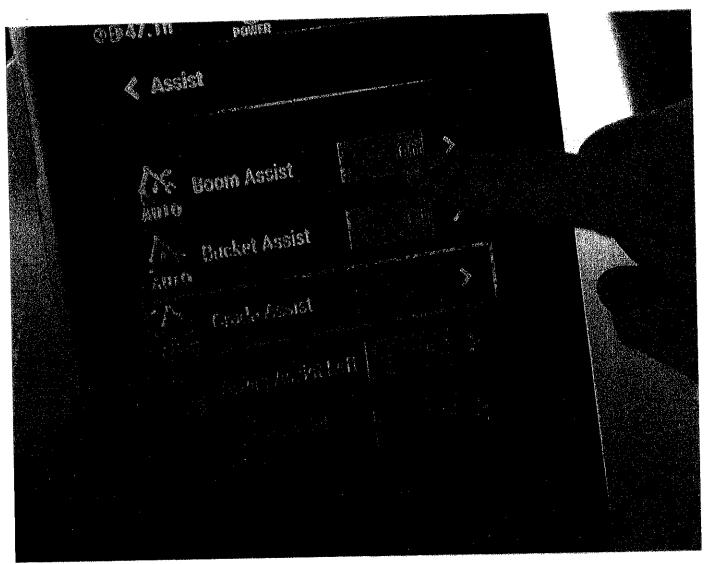
NEW 320:

3.5 GALHR X 1,000 HRYR = 3,500 GALYR (3.5 GALHR X 75%) X 1,000 HRYR = 2,625 GALYR 13.25 иня х 1000 нвук = 13 250 иук (13.25 иня х 75%) х 1000 нвук = 9938 иук

¹ Operator efficiency gains compared to traditional grading methods.

² Compared to the 320F,

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



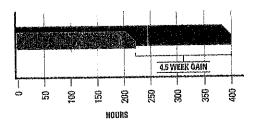
STANDARD CAT CONNECT TECHNOLOGY

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?



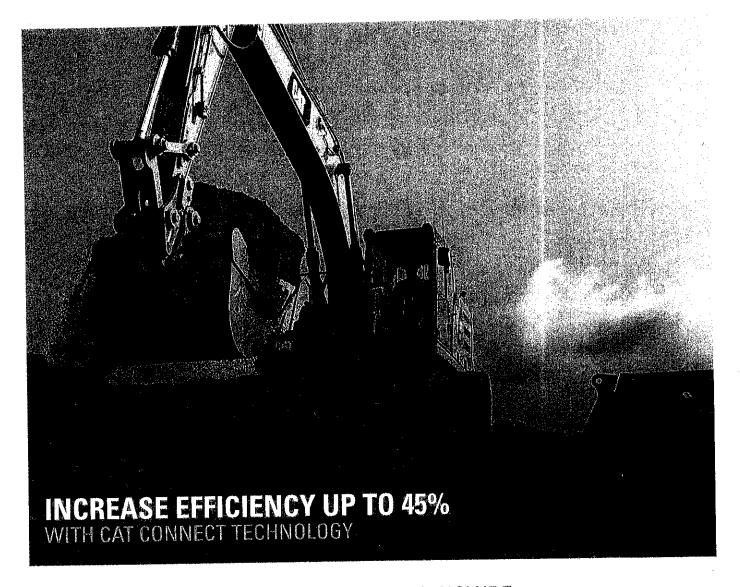


PREVIOUS VEAR

- 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



STANDARD, SIMPLE-TO-USE TECHNOLOGIES INCLUDE:



CTANDADD PAT CRADE 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 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.

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.



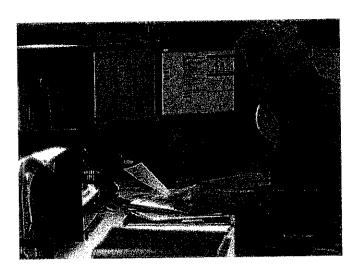
PRODUCT LINK™

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.

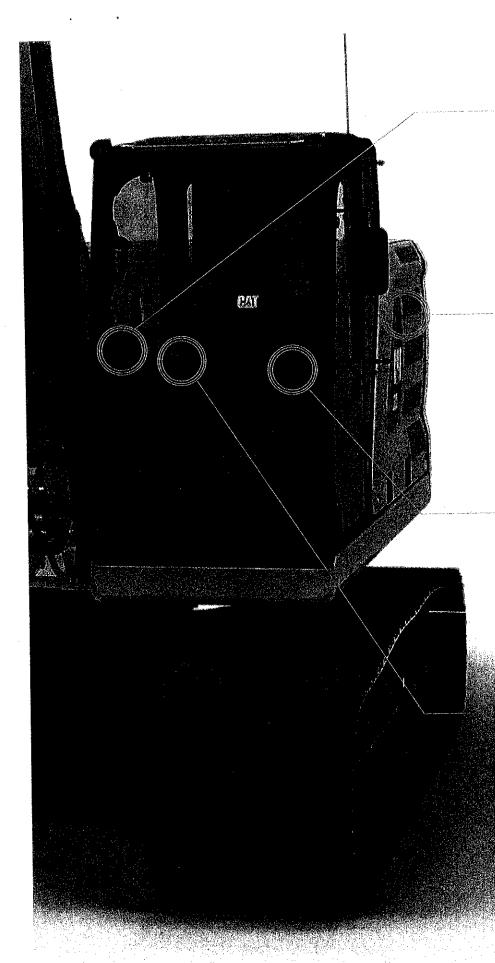
NEW CAB TAKES THE HARD OUT OF WORK

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.



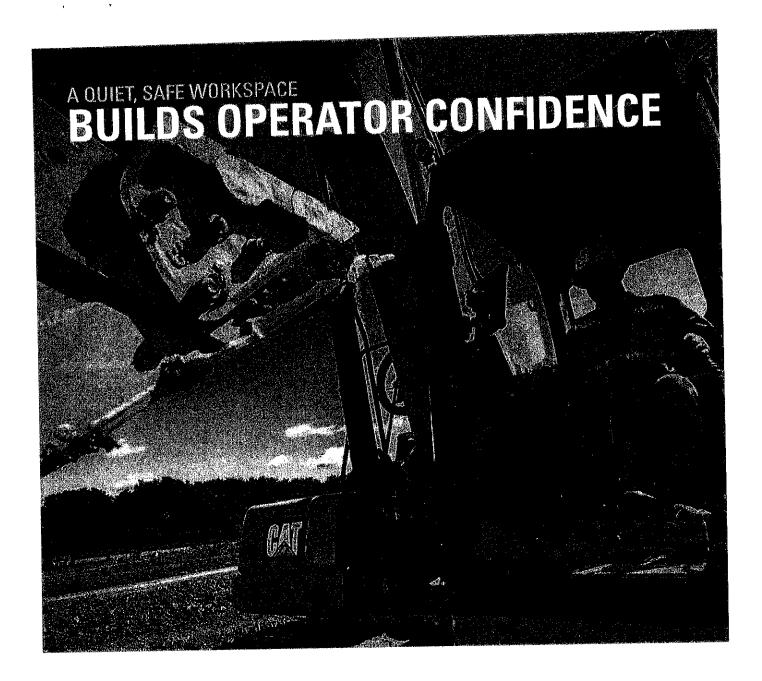
CUSTOMIZABLE JOYSTICKS

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.



() Kryŭess push start

The 2000ses a keyless push button engine stant, links adds security for the machine by using the parator ill sectes to limit and track iniachine access. Codes can be entered inentelly vistanapional Bluetooth^e key organion longing messoo dan



ISO-CERTIFIED ROPS CAB

The ISO-certified ROPS cab is soundsuppressed 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

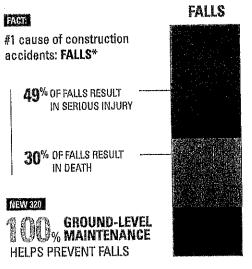
LOOK OUT FOR YOUR PEOPLE AND YOUR EQUIPMENT

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.

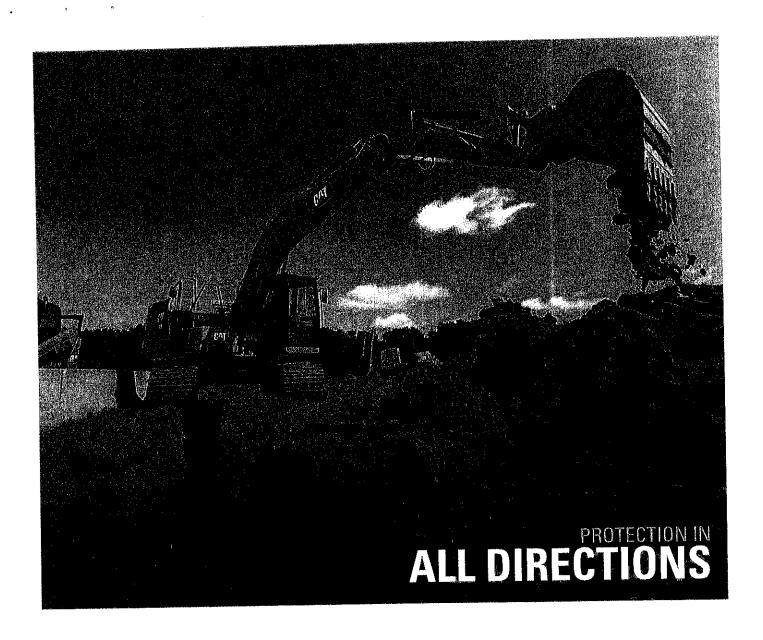
KEEP YOUR EXCAVATOR SECURE

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





*https://www.nobi.nlm.nih.gov/pmc/articles/PMC4962179/









E-WALL FORWARD



E-WALL CAB PROTECTION



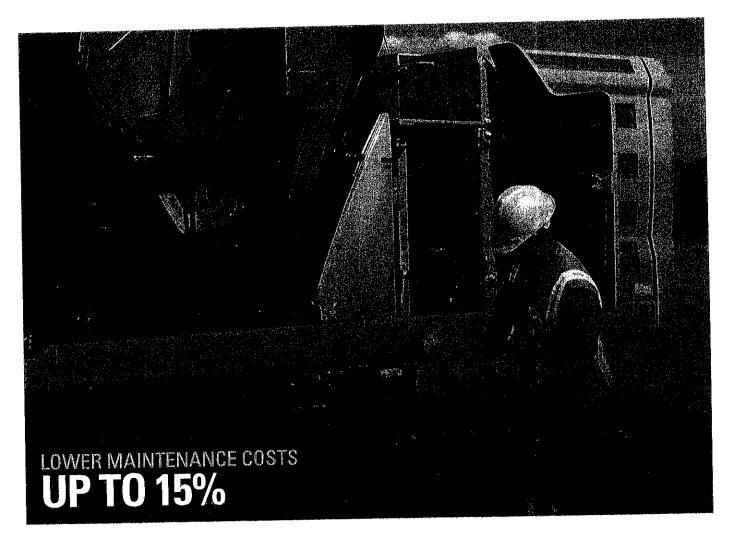
E-WALL CEILING



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.



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.

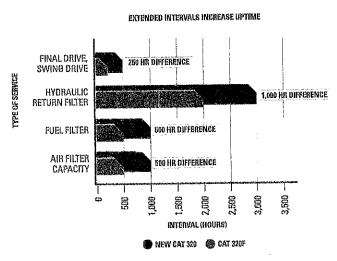
KEY MAINTENANCE COST REDUCTIONS INCLUDE:

- 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.

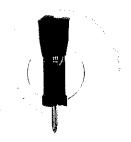
BUCKETS



GRAPPLES



HYDRAULIC HAMMERS



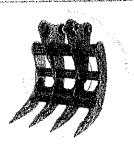
MULTI-PROCESSORS



QUICK COUPLERS



RAKES



RIPPERS



SECONDARY PULVERIZERS



SHEARS



THUMBS



VIBRATORY PLATE COMPACTORS



TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	
A STATE OF THE STA	Cat C4.4 ACERT
Engine Model Gross Power – ISO 14396/SAE J1995	122 kW 164 hp
Net Power – ISO 9249/SAE J1349	121 kW 162 hp
l control of the cont	12.11.
Engine RPM	1,650 rpm
Operation	1,800 rpm
Travel	105 mm 4 in
Bore	127 mm 5 in
Stroke	4,4 L 269 in ³
Displacement	
ELHYDRAUDIOSYSTEM:	
IVIAIII SYSTEM - IVIAAMMAN TOVY (MICHONIA	429 L/min 113 gal/min
Maximum Pressure - Equipment - Normal	35 000 kPa 5,075 psi
Maximum Pressure -	38 000 kPa 5,510 psi
Equipment – Heavy Lift Mode	namental and not
Maximum Pressure Travel	34 300 kPa 4,974 psi 26 800 kPa 3,886 psi
Maximum Pressure Swing	26 800 kPa 3,886 psi
MARHINEWEIGHTE	
Operating Weight - North America	22 500 kg 49,600 lb
Reach hopm, R2.9 m (9'6") stick, HD 1.19 m3 (1.56 yd	8) bucket and 790 mm
(31 in) triple grouser shoes, 4.2 mt (9,300 lb) counter	rweignt.
Operating Weight – Europe/Australia	21 900 kg 48,300 lb
and New Zealand	and the same of the same
Reach boom, R2,9 m (9'6") stick, HD 1.19 m ³ (1.56 yd	a) bucket and 500 mm
(24 in) triple grouser shoes, 4,2 mt (9,300 lb) counte	rweight,
PROTEST OF A STREET OF THE TRANSPACING	Strain Applications
Fuel Tank	345 L 86.6 gal
Cooling System	26 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)	234 L 61.8 gal
Hydraulic Tank	115 L 30.4 gal
DEF Tank	39 L 10,3 gal

ALLEGE BELLEVILLE SEE SEE SEE SEEN SEELEN SEELE	
Boom	Reach 5.7 m (18'8")
Stick	Reach 2.9 m (9'6")
Backet	1,19 m³ (1,56 yd³)
Shipping Height (top of cab)	2980 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	3660 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 FOR	NCESTRAL TO STATE
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 21'4"
Minimum Loading Height	2170 mm 7'1"
Maximum Depth Cut for 2440 mm (8'0")	6550 mm 21'6"
Level Bottom	
Level Bottom Mayimum Vertical Wall Digging Denth	5190 mm 17'0'
Maximum Vertical Wall Digging Depth	5190 mm 17'0' 150 kN 38,811 lbf
Maximum Vertical Wall Digging Depth Bucket Digging Force (ISO)	150 kN 38,811 lbf
Maximum Vertical Wall Digging Depth Bucket Digging Force (ISO) Stick Digging Force (ISO)	150 kN 38,811 lbt 106 kN 23,911 lbt
Maximum Vertical Wall Digging Depth Bucket Digging Force (ISO)	150 kN 38,811 lbt 106 kN 23,911 lbt

CAB FEATURES

SEATURE SEATURE	DESCRIBITION	ENCOMEOFIE	PPRIVELUX COMP	PREMIUMP
ROPS	Standard Sound Suppression	•	•	х
	Advanced Sound Suppression	×	, x	
High-Resolution Monitor	203 mm (8 inch) Touchscreen	•	•	6
	254 mm (10 Inch) Touchscreen	X :	0	ο.
Keyless Push-to-Start	Engine Control	@	3	•
Jog Diel, Shortcut Keys	Monitor Control	•	9	•
Air Conditioning	Automatic Bi-level	•	•	•
Suspension Seat with Seat Belt	Adjustable	• .	x	. х
	Air Adjustable	х	€9	. •
	Automatic	x	x	•
	Heated	x	0	х
	Heated & Cooled	×	×	•
Console	3 Fixed Heights		х	х
	Infinitely Adjustable	×	ø	
	Tilt-Up Left Side	х		•
Bluetooth Integrated Radio	With USB Ports	•	•	4

STANDARD & OPTIONAL EQUIPMENT

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

2000 (AH	L STANDARDS	E OPTIONAL I
ROPS, standard sound suppression	e commence de la comm	
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		€9
CATICONNECT: TECHNOLOGY	STANDARD :	OPTIONAL
Cat Product Link .	@	
Cat Grade with 2D	•	
Cat Grade with Advanced 2D not evailable on SLR		490
Cat Grade with 3D not evallable on SLR		•
Cat Grade with Assist	10	
Cat Payload	*	
ENGINE	STANDARD	OPTIONAL
Three selectable power modes	0	and the second
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	10	
HYORAULIC SYSTEM*	STANDARO	SOPTIONAL
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	6	
Hammer return filter circuit	$(x_{i,j}, x_{i,j}) \mapsto x_{i,j}$	•
Combined flow/high-pressure auxiliary circuit		•
Medium-pressure circuit		
Quick coupler circuit for Cat Pin Grabber		8

of actano.		
BOOM AND STICK	STANDARD	ÖPTIONAL
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	e coptional:
600 mm (24") triple grouser shoes		€0
700 mm (28") triple grouser shoes		*
790 mm (31") triple grouser shoes		
900 mm (35") triple grouser shoes		
Tie-down points on base frame	6	
4200 kg (9,300 lb) counterweight for HD boom and stick		•
4700 kg (10,400 lb) counterweight for SLR boom and stick		*
ELECTRICAL SYSTEM Two 1,000 CCA maintenance-free batteries	*STANDARO	#OPTIONAL!
Programmable time-delay LED working lights	***	
LED chassis light, left-hand/right-hand boom lights, cab lights	ଉ	
SERVICE AND MAINTENANCE SERVICE	STANDARDE	PORTIONAL
Sampling ports for Scheduled Oil Sampling (S·O·S SM)	99	
Ground-level and platform-level angine oil dipsticks	•	
Remote flash	•	
SAFETYAND SECURITY	STANDARO	GPTIONAL
Rearview camera	•	
Right-hand-side camera	***	**
Right-hand mirror	6	
360° Visibility	4	•
Ground-level engine shutoff switch	•	
Right-hand handrail and hand hold	•	
Signaling/warning horn	6	

*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.