



320 GX

Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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320 GX Hydraulic Excavator Specifications

Engine

| | | |
|----------------------|--------------------------|---------------------|
| Engine Model | Cat® C4.4 | |
| Net Power | | |
| ISO 9249 | 105.6 kW | 142 hp |
| ISO 9249 (DIN) | 144 hp (metric) | |
| Engine Power | | |
| ISO 14396 | 110 kW | 148 hp |
| ISO 14396 (DIN) | 150 hp (metric) | |
| Bore | 105 mm | 4 in |
| Stroke | 127 mm | 5 in |
| Displacement | 4.4 L | 269 in ³ |
| Biodiesel Capability | Up to B20 ⁽¹⁾ | |

- The 320 GX meets China Nonroad Stage IV emission standards.
- Recommended for use up to 4500 m (14,764 ft) altitude with engine power derate above 3000 m (9,842 ft).
- 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 2,000 rpm.

⁽¹⁾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)*
- ✓ 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.

**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.*

Swing Mechanism

| | | |
|----------------------|-----------|---------------|
| Swing Speed | 11.07 rpm | |
| Maximum Swing Torque | 74 kN·m | 54,875 lbf·ft |

Weights

Operating Weight 19 800 kg 43,650 lb

- Standard undercarriage, Reach boom, R2.7 (8'10") stick, General Duty (GD) 0.93 m³ (1.22 yd³) bucket, 600 mm (24") triple grouser shoes, and 3600 kg (7,940 lb) counterweight.

Track

| | | |
|---------------------------------------|--------|-------|
| Track Shoes Width | 600 mm | 24 in |
| Number of Shoes (each side) | 45 | |
| Number of Track Rollers (each side) | 7 | |
| Number of Carrier Rollers (each side) | 2 | |

Drive

| | | |
|----------------------|----------|------------|
| Maximum Gradeability | 35°±70% | |
| Maximum Travel Speed | 5.7 km/h | 3.6 mph |
| Maximum Drawbar Pull | 201 kN | 45,142 lbf |

Hydraulic System

| | | |
|--|-----------------------------------|--|
| Main System – Maximum Flow – Implement | 429 L/min (214.5 L/min × 2 pumps) | 113.4 gal/min (56.7 gal/min × 2 pumps) |
| Maximum Pressure – Equipment – Normal | 35 000 kPa | 5,075 psi |
| Maximum Pressure – Travel | 35 000 kPa | 5,075 psi |
| Maximum Pressure – Swing | 25 000 kPa | 3,625 psi |
| Boom Cylinder – Bore | 120 mm | 5 in |
| Boom Cylinder – Stroke | 1260 mm | 50 in |
| Stick Cylinder – Bore | 135 mm | 5 in |
| Stick Cylinder – Stroke | 1504 mm | 59 in |
| Bucket Cylinder – Bore | 115 mm | 5 in |
| Bucket Cylinder – Stroke | 1104 mm | 43 in |

320 GX Hydraulic Excavator Specifications

Service Refill Capacities

| | | |
|-----------------------------------|--------|-----------|
| Fuel Tank Capacity | 390 L | 103.0 gal |
| Cooling System | 24.5 L | 6.5 gal |
| Engine Oil | 15 L | 4.0 gal |
| Swing Drive | 5.5 L | 1.5 gal |
| Final Drive (each) | 4.5 L | 1.2 gal |
| Hydraulic System (including tank) | 218 L | 57.6 gal |
| Hydraulic Tank | 115 L | 30.4 gal |

Standards

| | |
|---|-------------------------|
| Brakes | ISO 10265:2008 |
| Cab/Operator Protective Guards (OPG) (Optional) | ISO 10262:1998 Level II |

Sound Performance

| | |
|------------------------------|-----------|
| GB/T 25614-2010 (external) | 104 dB(A) |
| GB/T 25615-2010 (inside cab) | 80 dB(A) |

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

320 GX Hydraulic Excavator Specifications

Operating Weights and Ground Pressures

| | 600 mm (24") Triple Grouser Shoes | |
|--|--------------------------------------|-----------------|
| | Weight | Ground Pressure |
| | kg (lb) | kPa (psi) |
| Base Frame with Track Rollers and Carrier Rollers | | |
| 3600 kg (7,940 lb) Counterweight + Standard Undercarriage Base Machine | | |
| Reach Boom + R2.7B1 (8'9") Stick + 0.93 m ³ (1.22 yd ³) GD Bucket | 19 800 (43,650) | 45.6 (6.6) |

All operating weights include a 90% fuel tank with 75 kg (165 lb) operator.

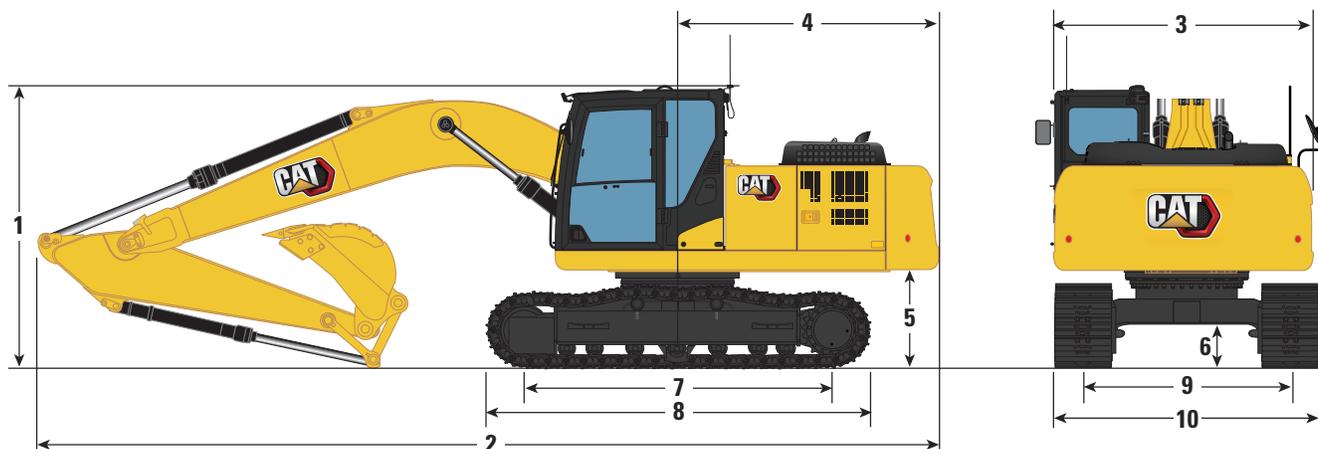
Major Component Weights

| | kg | lb |
|---|--------|--------|
| Base Machine (with upper frame, standard undercarriage, counterweight and two boom cylinders – does not include boom, stick, bucket, stick cylinder, bucket cylinder, tracks, 90% fuel tank and 75 kg [165 lb] operator). | 13 570 | 29,910 |
| Track Shoes: | | |
| 600 mm (24") Width, 8.5 mm (0.33") Thick Triple Grouser Track Shoes | 2390 | 5,270 |
| Two Boom Cylinders | 360 | 800 |
| Weight of 90% Fuel Tank and 75 kg (165 lb) Operator | 380 | 840 |
| Counterweight: | | |
| 3600 kg (7,940 lb) Counterweight | 3600 | 7,930 |
| Boom (including lines, pins, stick cylinder): | | |
| Reach Boom 5.7 m (18'8") | 1650 | 3,640 |
| Stick (including lines, pins, bucket cylinder, bucket linkage): | | |
| Reach Stick R2.7B1 (8'9") | 1030 | 2,260 |
| Buckets (without linkage, with tips and side cutters): | | |
| 0.90 m ³ (1.18 yd ³) Utility Duty (UD) | 750 | 1,650 |
| 0.93 m ³ (1.22 yd ³) GD | 770 | 1,690 |
| 1.00 m ³ (1.31 yd ³) GD | 790 | 1,750 |

320 GX Hydraulic Excavator Specifications

Dimensions

All dimensions are approximate and may vary depending on bucket selection.



Boom Option

Reach Boom
5.7 m (18'8")

Stick Option

Reach Stick
R2.7B1 (8'9")

1 Machine Height

| | | |
|----------------------------------|---------|-------|
| Top of Cab Height | 2950 mm | 9'8" |
| Top of OPG Height | 3080 mm | 10'1" |
| Handrail Height | 3010 mm | 9'11" |
| With Boom/Stick/Bucket Installed | 3130 mm | 10'3" |
| With Boom/Stick Installed | 3010 mm | 9'11" |
| With Boom Installed | 3010 mm | 9'11" |

2 Machine Length

| | | |
|----------------------------------|---------|--------|
| With Boom/Stick/Bucket Installed | 9570 mm | 31'5" |
| With Boom/Stick Installed | 9560 mm | 31'4" |
| With Boom Installed | 8510 mm | 27'11" |

3 Upperframe Width

| | | |
|--|---------|------|
| | 2740 mm | 9'0" |
|--|---------|------|

4 Tail Swing Radius

| | | |
|--|---------|------|
| | 2830 mm | 9'3" |
|--|---------|------|

5 Counterweight Clearance

| | | |
|--|---------|------|
| | 1040 mm | 3'5" |
|--|---------|------|

6 Ground Clearance

| | | |
|--|--------|------|
| | 460 mm | 1'6" |
|--|--------|------|

7 Track Length - Length to Center of Rollers

| | | |
|--|---------|-------|
| | 3270 mm | 10'9" |
|--|---------|-------|

8 Track Length - Crawler Overall Length

| | | |
|--|---------|-------|
| | 4080 mm | 13'5" |
|--|---------|-------|

9 Track Gauge

| | | |
|--|---------|------|
| | 2200 mm | 7'3" |
|--|---------|------|

| | | |
|--|---------|------|
| 10 Undercarriage Width - 600 mm (24") Shoes | 2800 mm | 9'2" |
|--|---------|------|

| | | |
|-------------|----|----|
| Bucket Type | GD | GD |
|-------------|----|----|

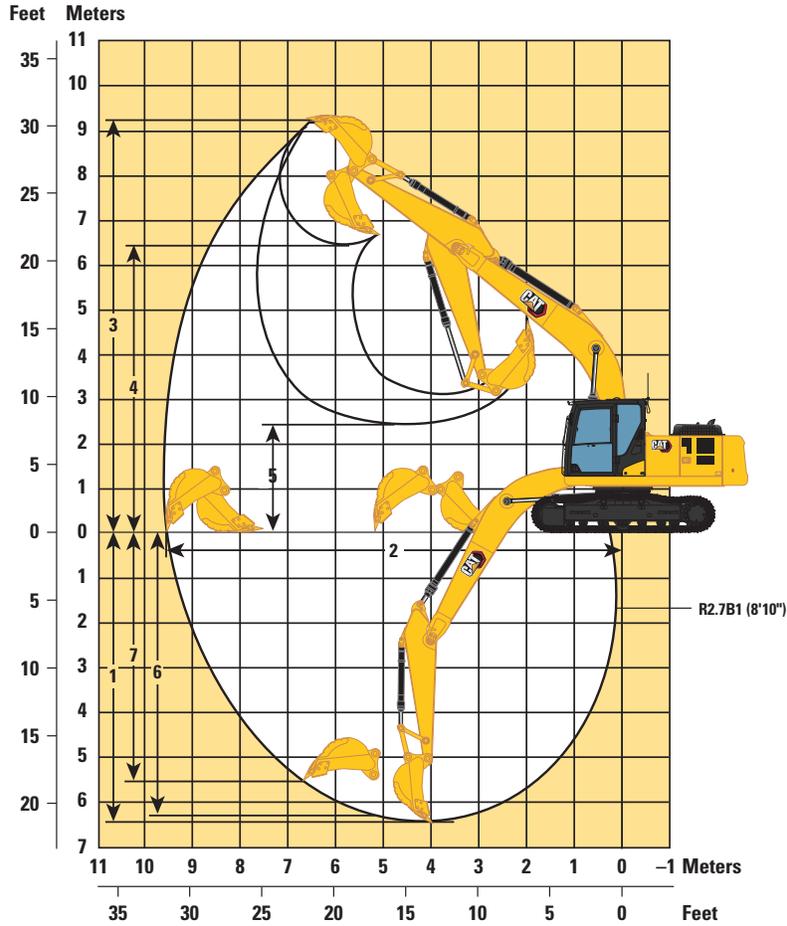
| | | |
|-----------------|---------------------|----------------------|
| Bucket Capacity | 0.93 m ³ | 1.22 yd ³ |
|-----------------|---------------------|----------------------|

| | | |
|-------------------|---------|-------|
| Bucket Tip Radius | 1495 mm | 4'11" |
|-------------------|---------|-------|

320 GX Hydraulic Excavator Specifications

Working Ranges and Forces

All dimensions are approximate and may vary depending on bucket selection.



| Boom Option | Reach Boom 5.7 m (18'8") | |
|---|------------------------------|----------------------|
| Stick Option | Reach Stick R2.7B1 (8'9") | |
| 1 Maximum Digging Depth | 6430 mm | 21'1" |
| 2 Maximum Reach at Ground Level | 9580 mm | 31'5" |
| 3 Maximum Cutting Height | 9290 mm | 30'6" |
| 4 Maximum Loading Height | 6450 mm | 21'2" |
| 5 Minimum Loading Height | 2460 mm | 8'1" |
| 6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom | 6250 mm | 20'6" |
| 7 Maximum Vertical Wall Digging Depth | 5510 mm | 18'1" |
| Minimum Working Equipment Radius | 3680 mm | 12'1" |
| Bucket Digging Force (ISO) | 136 kN | 30,597 lbf |
| Stick Digging Force (ISO) | 106 kN | 23,897 lbf |
| Bucket Type | GD | GD |
| Bucket Capacity | 0.93 m ³ | 1.22 yd ³ |
| Bucket Tip Radius | 1495 mm | 4'11" |

320 GX Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

| | Linkage | Width | | Capacity | | Weight | | Fill | Reach Boom |
|------------------------------------|---------|-------|----|----------------|-----------------|--------|-------|------|----------------|
| | | mm | in | m ³ | yd ³ | kg | lb | % | R2.7 m (8'10") |
| Pin-On (No Quick Coupler) | | | | | | | | | |
| General Duty | B | 1200 | 47 | 0.93 | 1.22 | 766 | 1,689 | 100 | ● |
| | B | 1200 | 42 | 1.00 | 1.31 | 784 | 1,729 | 100 | ⊙ |
| Utility Duty | B | 1150 | 46 | 0.90 | 1.18 | 750 | 1,653 | 100 | ● |
| Max load pin-on (payload + bucket) | | | | | | | | kg | 2580 |
| | | | | | | | | lb | 5,688 |

The above loads are in compliance with hydraulic excavator standard EN474-5:2006 + A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451:2007.

Bucket weight with General Duty tips.

Maximum Material Density:

● 2100 kg/m³ (3,500 lb/yd³)

⊙ 1800 kg/m³ (3,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

320 GX Hydraulic Excavator Specifications

Attachments Offering Guide

Not all Attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

Match

† Allowed usage on machine less than 50%

PIN-ON ATTACHMENTS

| Boom Type | | Reach |
|------------------------------|--------------------|---------------|
| Stick Size | | R2.7 m (8'9") |
| Hydraulic Hammers | H115 S | ✓ |
| | H120 GC | ✓ |
| | H120 GC Side-Mount | ✓ |
| | H120 GC S | ✓ |
| | H120 S | ✓ |
| | H130 S | ✓† |
| | H140 Side-Mount | ✓ |
| Compactors (Vibratory Plate) | CVP110 | ✓ |

320 GX Standard and Optional Equipment

Standard and Optional Equipment

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

| | Standard | Optional | | Standard | Optional |
|---|----------|----------|---|----------|----------|
| BOOMS, STICKS AND LINKAGES | | | ENGINE (continued) | | |
| 5.7 m (18'8") Reach boom | ✓ | | Electric fuel priming pump | ✓ | |
| 2.7 m (8'9") Reach stick | ✓ | | Direct drive fan | ✓ | |
| Bucket linkage, B1 type | ✓ | | Two-stage fuel filtration system with water separator and indicator | ✓ | |
| CAB | | | Sealed double element air filter with pre-cleaner | ✓ | |
| Sound suppressed cab with viscous mounts | ✓ | | HYDRAULIC SYSTEM | | |
| High-resolution 203 mm (8") LCD touchscreen monitor | ✓ | | Electronic main control valve, hammer ready | ✓ | |
| Mechanically adjustable seat with headrest | ✓ | | Tandem-type electronic pump | ✓ | |
| 51 mm (2") seat belt | ✓ | | High performance hydraulic return filter | ✓ | |
| Automatic bi-level air conditioner | ✓ | | Hammer return filter | | ✓ |
| Keyless push-to-start engine control | ✓ | | Boom and stick regeneration circuits | ✓ | |
| Floor mounted adjustable consoles | ✓ | | Automatic hydraulic oil warm-up | ✓ | |
| 1-button joysticks | ✓ | | Automatic two-speed travel | ✓ | |
| 3-button joysticks | | ✓ | Hammer lines | | ✓ |
| AM/FM radio with Bluetooth®, USB and auxiliary port | ✓ | | SAFETY AND SECURITY | | |
| 24V DC outlet | ✓ | | Anti-skid plating with countersunk bolts | ✓ | |
| Cup holder and storage compartments | ✓ | | OPG with matching lights | | ✓ |
| 70/30 tempered glass windshield | ✓ | | Handrail and hand hold | ✓ | |
| Upper radial wiper with washer | ✓ | | Lockable external tool/storage box | ✓ | |
| Openable steel hatch | ✓ | | Ground-level secondary engine shutoff switch | ✓ | |
| Dome light | ✓ | | Mirror package | ✓ | |
| Washable floor mat | ✓ | | Lockable disconnect switch | ✓ | |
| ELECTRICAL SYSTEM | | | Signaling/warning horn | ✓ | |
| Two 950 CCA maintenance-free batteries | ✓ | | Swing alarm | | ✓ |
| Electrical disconnect switch | ✓ | | Hydraulic lockout lever | ✓ | |
| LED chassis and cab lights | ✓ | | Rearview camera | | ✓ |
| LED Left-side boom light | ✓ | | SERVICE AND MAINTENANCE | | |
| LED Right-side boom light | | ✓ | Grouped engine oil and fuel filters | ✓ | |
| ENGINE | | | Scheduled Oil Sampling (S·O·S SM) ports | ✓ | |
| Cat® C4.4 single turbo diesel engine | ✓ | | Radiator screen | | ✓ |
| Two selectable modes: Power, Smart | ✓ | | UNDERCARRIAGE AND STRUCTURES | | |
| Up to 4500 m (14,760 ft) altitude capability with derate from 3000 m (9,840 ft) | ✓ | | 600 mm (24") triple grouser shoes | ✓ | |
| 52° C (125° F) high-ambient cooling capacity | ✓ | | Grease lubricated track link | ✓ | |
| -25° C (-13° F) cold start capability | ✓ | | Center track guiding guard | ✓ | |
| | | | Bottom guards | ✓ | |
| | | | Travel motor guards | ✓ | |
| | | | 3600 kg (7,940 lb) counterweight | ✓ | |
| | | | Tie-down points | ✓ | |

320 GX Hydraulic Excavator Specifications

Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

GUARDS

- 6 mm (0.24") standard swivel guard
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front

SERVICE PARTS

- Hammer floor pedal kit
- Grease gun holder

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The 320 GX meets the China Nonroad Stage IV 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)*
 - ✓ 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.

**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.*

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 (1.9 lb) of refrigerant which has a CO₂ equivalent of 1.216 metric tonnes (1.340 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

| | |
|------------------------------|-----------|
| GB/T 25614-2010 (external) | 104 dB(A) |
| GB/T 25615-2010 (inside cab) | 80 dB(A) |

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - Smart mode matches machine power to digging requirements automatically
 - Automatic Engine Control reduces engine speed when the machine is not under load to minimize fuel consumption
 - Cut maintenance costs up to 20% with enhanced filters and extended service intervals
 - The latest hydraulic oil filter provides longer life with a 3,000-hour replacement interval – 50% longer than previous filter designs

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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AEXQ2988-06 (12-2023)
Replaces AEXQ2988-05
Build Number: 05E
(China)

