



# Cat<sup>®</sup> 988 GC

## Wheel Loader

***The Cat<sup>®</sup> 988 GC Wheel Loader helps you move more material at a lower cost per hour for a faster return on your investment. This machine offers significant fuel savings and up to 10% lower owning and operating cost than the 988K.***

### Reliability

- Cat C15 engine is built and tested to meet your most demanding applications.
- Cat torque converter with lock-up clutch eliminates torque converter losses and lowers system heat.
- Maximum responsiveness with Steering and Integrated Control (STIC<sup>™</sup>).
- Moves more material more efficiently with improved power and control.
- Transmission neutralizer pedal extends service brake life and allows full power during stationary loading.
- Mechanically Actuated Electronic Unit Injection (MEUI<sup>™</sup>) fuel system and Advanced Diesel Engine Management (ADEM<sup>™</sup>) A5 electronic control module manage fuel delivery for optimum performance and quick engine response.

### Durability

- Best-in-class transmission for long life and consistent, smooth shifting; specifically designed for mining applications.
- Advanced Productivity Electronic Control Shifting (APECS) transmission controls for greater momentum on grades.
- Positive Flow Control (PFC) hydraulic system increases efficiency, bucket feel, and responsiveness with consistent performance.
- Advanced filtration system for extended performance and reliability of the hydraulic system.
- Impeller Clutch Torque Converter (ICTC) minimizes tire spin by allowing torque to adjust to underfoot conditions.
- Advanced filtration system for extended performance and reliability of the hydraulic system.

### Achieve Productivity Targets

- Optimum 70-ton truck match loader.
- Dump clearance designed for efficient truck loading up to 775G.
- Improved visibility over the top of the linkage.
- Rated payload aligned with 988K.
- Convenient, responsive electro-hydraulic controls increase operator productivity.
- Integrated steering and transmission controls.

### Superior Fuel Efficiency

- Up to 5% less fuel consumption than the 988K.
- Flow sharing hydraulics for full flow at reduced engine rpm.
- Fully integrated electronic engine controls make your fuel go farther.
- Engine Idle Shutdown for less fuel used while idling.



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## Increase Productivity and Efficiency with Integrated Technologies

- Cat Technologies developed to monitor, manage, and enhance your jobsite operations.
- Cat Payload ready provides accurate weighing\* of the materials you are loading and hauling. Payload data is displayed in real-time to improve productivity and reduce overloading.
- Optional Cat Detect enhances awareness of the environment around working equipment and provides alerts to help keep people and assets safe on the jobsite.
- Product Link™ wirelessly connects you to your equipment, giving you access to essential information you need to know to run your business. Gain valuable insight into how your machine or fleet is performing.
- Optional Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.
- Standard work tool recognition provides awareness of bucket install.

## Safety Features

- Achieve precise positioning for easy loading in tight areas with 43 degrees of steering articulation.
- Precise machine control by load-sensing hydraulic steering system.
- Standard LED lights for improved visibility.
- Optional left- and right-hand stairs with 45-degree angle.
- Computerized monitoring system with warning indicators.
- Standard rear Cat Vision enhances visibility behind the machine, helping you work safely and confidently.
- Pressurized cabin with filtered air and reduced sound levels.

## Reduced Maintenance Time and Costs

- Up to 25% lower maintenance costs than the 988K.
- Grouped service points provide easy access to critical daily service checks.
- Electro-hydraulic controls.
- Swing-out engine compartment service doors.
- Reduced waste with maintenance-free batteries.
- Ecology drains to prevent spilled contaminants and allow for easier service.
- Vehicle Information Management System (VIMS™) notifications to resolve problems before failure.
- Ground level access to transmission control valves.

## Easy, Comfortable Operator Environment

- Best-in-class operator comfort and ergonomics.
- Comfort Series III seats with extra thick, contoured cushions provide total comfort throughout the workday.
- Easy-to-reach levers and seat-mounted implement pod to reduce fatigue.
- Ergonomic switch placement and displays with large, backlit switches and LED indicators.
- Two-position rocker switch activates the electro hydraulic parking brake.
- Reduced vibrations from isolated cab mounts and seat air suspension.
- Automatic cab temperature controls.
- Up to 47% quieter STIC steering significantly reduces operator sound levels.

*\*Not legal for trade.*

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>ELECTRICAL</b>			<b>POWER TRAIN (CONTINUED)</b>		
Alarm, back-up	✓		Crankcase guard	✓	
Alternator, single 145 amp	✓		Electro hydraulic parking brake	✓	
Converter, 10/15 amp, 24V to 12V	✓		Engine block heater 120V or 240V		✓
Lighting system (LED, work lights, access and service platform lighting)	✓		Engine, C15 MEUI™ diesel, turbocharged/aftercooled	✓	
Starting and charging system, 24V	✓		Ground level engine shutoff	✓	
Starter emergency start receptacle	✓		High ambient cooling – software		✓
<b>OPERATOR ENVIRONMENT</b>			<b>ADDITIONAL EQUIPMENT</b>		
Air conditioner	✓		Automatic bucket lift kickout/positioner	✓	
Cab precleaner	✓		Base machine price includes a rim allowance	✓	
Cab, sound suppressed and pressurized, integrated rollover protective structure (ROPS/FOPS), radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port	✓		Cat Clean Emission Module (CEM)		✓
Cat® Detect, object detection system		✓	Cold weather starting		✓
Cat Production Measurement		✓	Doors, service access (locking)	✓	
Cat Production Measurement ready	✓		Ecology drains for engine, radiator, hydraulic tank	✓	
Cat Vision, rear vision camera system	✓		Front and rear roading fenders		✓
Heater, defroster	✓		Hitch, drawbar with pin	✓	
Horn, electric	✓		Hydraulic, steering and brake filtration/screening system	✓	
Light, directional	✓		Hydraulically driven demand fan	✓	
Lights, LED	✓		Oil sampling valves	✓	
Lunchbox, beverage holders	✓		Premixed 50% concentration of extended life coolant with freeze protection to -34° C (-29° F)	✓	
Mirrors, rearview (externally mounted)	✓		Rear access to cab and service platform	✓	
Radio, AM/FM	✓		Steering, load sensing	✓	
Radio, CB ready		✓	Tire Pressure Monitoring System		✓
Seat, Cat Comfort (cloth), air suspension, six-way adjustable	✓		Toe kicks	✓	
Seat belt minder	✓		Vandalism protection caplocks	✓	
Seat belt, retractable, 76 mm (3 in) wide	✓				
Steering and Integrated Control (STIC™) System	✓				
UV glass	✓				
Wet-arm wipers/washers (front and rear) – intermittent front and rear wipers	✓				
<b>POWER TRAIN</b>					
Antifreeze -50° C (-58° F)		✓			
Brakes, oil-cooled, multi-disc, service/secondary	✓				
Case drain screens	✓				

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## Technical Specifications

Engine		
Engine Model	C15	
Rated Speed	2000 rpm	
Peak Power Speed	1600 rpm	
Engine – ISO 14396:2002	335 kW	449 hp
Gross – SAE J1995:2014	340 kW	456 hp
Net Power – SAE J1349:2011	278 kW	373 hp
Bore	137 mm	5.4 in
Stroke	171.5 mm	6.75 in
Displacement	15.2 L	927 in <sup>3</sup>
Peak Torque @ 1,200 rpm	2411 N·m	1,778 lb-ft
Torque Rise	16%	

Two engine emission options are available:

1. Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
  2. Meets Brazil MAR-1 and China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator.

## Operating Specifications

Operating Weight	53 006 kg	116,858 lb
Rated Payload – Quarry Face	11.3 tonnes	12.5 tons
Bucket Capacity Range	6.4-7.6 m <sup>3</sup>	8.3-10 yd <sup>3</sup>
Cat Truck Match	772/773/775	

## Transmission

Transmission Type			Cat planetary power shift		
Speed	km/h	mph	Speed	km/h	mph
Forward 1	7.3	5.0	Direct Drive Forward 1	Lock-up disabled	
Forward 2	12.2	8.0	Direct Drive Forward 2	12.7	8.0
Reverse 1	7.6	5.0	Direct Drive Forward 3	22.0	14.0
Reverse 2	13.6	8.0	Direct Drive Forward 4	39.0	24.0
			Direct Drive Reverse 1	Lock-up disabled	
			Direct Drive Reverse 2	14.1	9.0
			Direct Drive Reverse 3	25.0	16.0
			Direct Drive Reverse 4	40.8	25.4

• Travel speeds based on 35/65-R33 tires.

## Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	EH – Load Sense	
Lift/Tilt System Pumps	Variable Displacement Piston	
Relief Valve Setting – Lift/Tilt	31 700 kPa	4,598 psi

## Hydraulic Cycle Time (2,165 rpm)

Rackback	3.8 Seconds
Raise	7.5 Seconds
Dump	3.0 Seconds
Lower Float Down	4.6 Seconds
Total Hydraulic Cycle Time (empty bucket)	18.9 Seconds

## Hydraulic System – Steering

Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Piston, variable displacement	
Relief Valve Setting – Steering	27 600 kPa	4,000 psi
Total Steering Angle	70°	
Steering Cycle Time (high idle)	3.0 Seconds	
Steering Cycle Time (low idle)	5.2 Seconds	

## Service Refill Capacities

Fuel Tank	535 L	141 gal
Diesel Exhaust Fluid Tank	21 L	5.5 gal

- All nonroad Tier 4 Final/Stage V diesel engines are required to use:
  - Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less.
  - Cat engines are compatible with the following renewable, alternative, and biofuels\* that reduce greenhouse gases on a life cycle basis:
    - Up to B20 biodiesel (FAME) \*\*
    - Up to 100% HVO and GTL renewable fuels
- \*\* Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.
- \*\* Engines with aftertreatment devices can use up to B20. Engines with no aftertreatment devices can use higher blends, up to B100 where mandated.
  - Cat DEO-ULS™ or oils that meet the Cat ECF-4, API CJ-4, and ACEA E9 specifications are required.
  - Only use DEF that meets ISO 22241-1:2006 standards.
- For pre-Tier 4 engines: Cat engines are compatible with the following renewable, alternative, and biofuels\* that reduce greenhouse gases on a life cycle basis:
  - Up to B20 biodiesel (FAME) \*\*
  - Up to 100% HVO and GTL renewable fuels
- \*\* Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.
- \*\* B30, where mandated, can be used. For use of higher blends, up to B100, consult your Cat dealer.
  - Cat DEO-ULS or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.
  - Only use DEF that meets ISO 22241-1:2006 standards.

## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg of refrigerant which has a CO<sub>2</sub> equivalent of 2.574 metric tonnes.

## Sound Performance – Tier 4 Final/Stage V

	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	72 dB(A)	72 dB(A)
Machine Sound Level (ISO 6395:2008)	112 dB(A)	110 dB(A)*

## Sound Performance – Brazil MAR-1 and China Nonroad Stage III, Tier 3/Stage IIIA Equivalent

	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	72 dB(A)	72 dB(A)
Machine Sound Level (ISO 6395:2008)	112 dB(A)	110 dB(A)

\*European Union Directive “2000/14/EC” as amended by “2005/88/EC.”

- The machine sound power level was measured according to the test ISO 6395:2008. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- The operator sound pressure level was measured according to the test procedures and conditions specified in ISO 6396:2008. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.



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AEXQ3428-00 (6-2022)  
Build Number: 12A  
(Global except N Am  
and China)

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).

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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