## 988 GC WHEEL LOADER



Engine Power (ISO 14396:2002) Operating Weight – High Lift 335 kW (449 hp) 50,996 kg (112,426 lb)

Engine meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.



# THE CAT® 988 GC

LOWER COST PER HOUR WITH INDUSTRY-LEADING EFFICIENCY AND PRODUCTIVITY The Cat® 988 GC is designed with durability built in, ensuring maximum availability through multiple lifecycles. With optimized performance and simplified serviceability, the 988 GC allows you to move more material efficiently and safely at a lower cost per hour.



#### **HELPING YOU MOVE MORE MATERIAL, MORE EFFICIENTLY**

The Cat 988 GC Wheel Loader helps you move more material at a lower cost per hour for a faster return on your investment.

#### **ACHIEVE PRODUCTIVITY TARGETS**

- OPTIMUM 50-TON TRUCK MATCH LOADER.
- DUMP CLEARANCE DESIGNED FOR EFFICIENT TRUCK LOADING UP TO THE CAT 775 OFF-HIGHWAY TRUCK.
- + IMPROVED VISIBILITY OVER THE TOP OF THE LINKAGE.
- + SAME PAYLOAD AS THE CAT 988K LARGE WHEEL LOADER.
- + CONVENIENT, RESPONSIVE ELECTRO-HYDRAULIC CONTROLS INCREASE OPERATOR PRODUCTIVITY.
- + INTEGRATED STEERING AND TRANSMISSION CONTROLS.
- + ENHANCED OPERATOR CONTROLS DELIVER GREATER EFFICIENCY, PRODUCTIVITY, AND COMFORT.



## PROVEN POWER, LOWER FUEL BURN

Durability and efficiency at the heart of your 988 GC comes from the Cat® C15 engine. Optimum performance is built into this 6 cylinder turbocharged engine. Fully integrated electronic engine controls work in concert with the entire machine to make your fuel go farther. The C15 meets Tier 4 Final/EU Stage V, and Japan 2014 or China Nonroad Stage III and Brazil MAR-1 emission standards equivalent to Tier 3 and Stage IIIA.

## INCREASE **EFFICIENCY**

Load sense hydraulics maximize performance by directing hydraulic fluid flow through implement and steering system only when needed.



## MATCH AND MOVE MORE

Achieve even greater production with an optimized truck match to maximize the volume of material moved at the lowest operating cost per ton.

Cat 770 36 t (40 ton)

3 PASSES

Cat 772 45 t (50 ton)

4 PASSES

Cat 773 56 t (61.7 ton)

5 PASSES

Cat 775 64 t (70.5 ton)

6 PASSES

THE CAT 988 GC IS OPTIMALLY MATCHED WITH CAT OFF-HIGHWAY TRUCKS.

## DO MORE FOR LESS WITH **ELECTRO HYDRAULIC LOAD SENSE**

Increase efficiency through our load sense hydraulic system. Load sense hydraulics maximize performance by directing hydraulic fluid flow through implement and steering system only when needed.

- + Lower fuel consumption
- Consistent performance and efficiency with lower system heat

## ELECTRO HYDRAULIC SYSTEMS BOOST PRODUCTIVITY

With the 988 GC's electro hydraulic controls, operators have the precise maneuvering control that leads to excellent productivity. Electronically controlled hydraulic cylinder stops and easy-to-use soft detent controls make precise movements simple and comfortable. A load-sensing steering system with 43 degrees of articulation allows precise positioning and easy loading in tight areas.

#### BEST-IN-CLASS OPERATOR COMFORT AND ERGONOMICS



#### **EASY ENTRY**

Operators access the cab by optional 45° anti-skid stairways mounted on both sides of the machine. The STIC control column folds up and out of the way to make cab entry and seat adjustment easier.



#### **COMFORT SERIES III SEAT**

The Comfort Series III seat delivers total comfort throughout the workday. Standard features include mid back design and extra thick, contoured cushions, air suspension system, easy-to-reach seat levers and controls for six way adjustments, seat-mounted implement pod and STIC steer that moves with the seat. The seat also features a flip up armrest for easier ingress/egress.

#### TRANSMISSION NEUTRALIZER PEDAL

The neutralizer pedal allows full power to the implement system while the machine is stationary during truck loading and extends service brake life by neutralizing transmission as service brakes are applied.

#### **○** CAB COMFORT MEASURES

The 988 GC's cabin remains comfortable at all times. Isolated cab mounts reduce vibration, while filtered, pressurized air and automatic climate control maintain an agreeable atmosphere. A floor storage tray keeps items out of the operator's way.

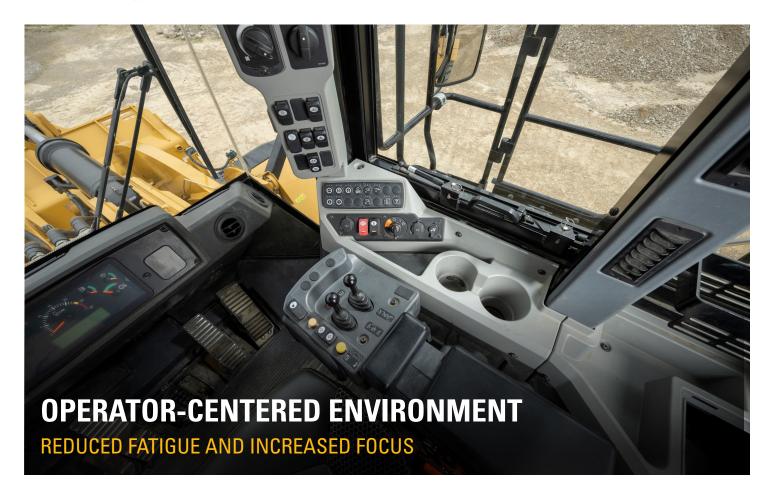
### STEERING AND TRANSMISSION INTEGRATED CONTROL (STIC™) MAXIMIZES RESPONSIVENESS

Easier control and shorter, faster cycles reduce operator fatigue and increase efficiency. The STIC system combines steering, gear selection, and more into a single lever. Steering is accomplished with small side-to-side inputs, and gear changes are controlled with the fingers.



#### **LOW OPERATOR SOUND LEVELS**

Low interior sound levels increase operator comfort, and spectator sound levels have been reduced. Optional low sound packages reduce the noise level even further.



#### **TOTAL SAFETY FOCUS**

#### KEEPING EVERY WORKER SAFE AND AWARE

Your most important job is keeping your team safe. We are constantly improving our products in an effort to provide a safe work environment for the operator and those who work on your jobsite.



#### **EASY AND SAFE ACCESS**

The cab is accessed by optional 45° angle anti-slip stairways on the left and right sides, with standard stairway lighting. All access walkways are continuous to avoid trip hazards, equipped with highly effective anti-slip texture, and designed to provide three points of contact during all tasks. Many service points are accessible from ground level.



#### **SEE AND BE SEEN WITH HIGH VISIBILITY**

The cab provides excellent sight lines, and a rear-vision camera enhances visibility behind the machine, helping operators work more safely and confidently. The Cat Detect radar system is available to give the operator even greater awareness of the surrounding environment. High-visibility warning beacon is available as an option and LED work lights are standard.



#### **MASTER DISCONNECT SWITCH**

Ground electrical service center with jump start receptacle, emergency engine shutdown switch, battery disconnect switch and circuit breakers.



#### **A STRONG LEGACY**

The 988 series has proven durable and reliable for nearly 60 years, and the new 988 GC builds upon this legacy of durability, performance, safety, operator comfort, and serviceability.

#### STRONG STRUCTURES

A full box-section rear frame resists torsional shock and twisting forces. Heavy-duty steering cylinder mounts efficiently transmit steering loads into the frame.

#### STRONG CONNECTIONS

Every linkage and connection is engineered for maximum durability. Axle mountings have increased structural integrity. The greased pin design of the front linkage pin joints help increase their service life.

#### **STRONG ARMS**

The lift arms are solid steel for excellent stress absorption, and the strength of key pin areas is enhanced through the use of one-piece castings. The Z-bar design of the arms enhances worksite visibility.

## A PROTECTED POWER TRAIN

When the machine is turned off, a
Delayed Engine Shutdown system
determines whether the engine needs
additional cooldown time. If so, it moves
the engine into idle for a short period
before final shutdown. This preserves
engine life and durability.

## PERFORMANCE SERIES BUCKETS

Deliver faster fill times and better material retention, ultimately reducing cycle times while improving productivity and fuel efficiency.

#### THRIVE WITH CAT TECHNOLOGY

#### SMART SYSTEMS THAT SAVE YOU MONEY

The 988 GC features empowering technology that helps you work smarter, do more, and protect your investment.



#### **UPGRADED TOUCHSCREEN WITH VIMS™**

The improved touchscreen and user interface allow intuitive operation and easy navigation. VIMS decreases service time by keeping operators and technicians informed about machine systems and allows access to a wide range of machine data, helping reduce maintenance overhead and providing opportunities to increase productivity and efficiency.

- Create productivity reports with payload and work cycle segmentation.
- Identify operator training needs through productivity data.
- Access detailed data logging of machine parameters and diagnostic codes.
- Track sensor information with trend analysis and histograms to monitor machine health.



#### **CAT TECHNOLOGY AND SUPPORT**

System notifications from the Vital Information Management System (VIMS™) allow your operators and technicians to resolve problems before failure, helping reduce downtime and maintenance costs. You'll also have the full backing of Caterpillar's legendary support system: preventive maintenance programs, guaranteed maintenance contracts, excellent parts availability, and a worldwide dealer network. Genuine Cat remanufactured parts will lower your costs and further reduce the environmental impact of the machine over its service life.



#### **OCCUPY OF THE PRODUCTION MEASUREMENT (CPM) READY**

Cat Production Measurement is an on-the-go scale system that brings payload weighing to the cab so operators can work more productively and deliver accurate loads with confidence. CPM's advanced weighing modes assist with payload accuracy and speed the loading cycle.

\*Not legal for trade.



#### **CONNECTED BUCKET**

The connected bucket technology communicates with the back office at the dealership to help aid in predicting when the bucket and GET needs to be replaced.







**ROCK BUCKETS** 

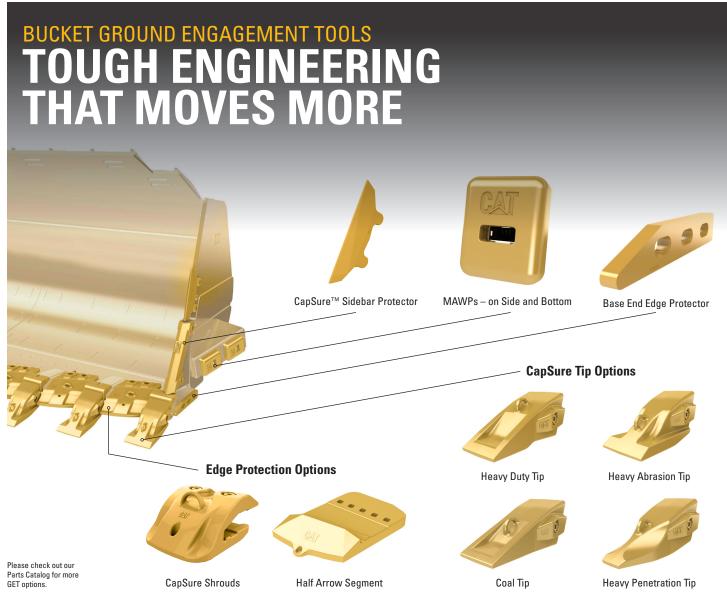
**HEAVY-DUTY ROCK BUCKETS** 

**GENERAL PURPOSE BUCKETS** 

#### TOOLS TO GET EVERY JOB DONE AND LOWER YOUR COSTS

Caterpillar's ground engagement options give you the ability to adapt to any condition and do so while protecting your investment.

- Each bucket is designed to make moving the appropriate material easy and efficient, and each is engineered with special features that increase durability and service life.
- Cat Advansys™ Ground Engaging Tools (GET) give you even more ability to adapt and specialize for higher profitability. These modular tips protect expensive components, reduce your operating costs, and help you get the most out of your machine's performance.
- A number of GET components can be installed with simple, hammerless CapSure<sup>™</sup> Retention Technology. CapSure tips, shrouds, and sidebar protectors are easily locked and unlocked with a 180-degree turn of a ¾ inch (19 mm) ratchet, making the process fast, easy, and safe.



#### TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE			
Engine Model	Cat® C15		
Rated Speed	2,000 r	2,000 rpm	
Peak Power Speed	1,600 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:

- 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 SPECIFIC	CATIONS	
Operating Weight	51 179 kg	112,830 lb
Rated Payload — Quarry Face	11.3 tonnes	12.5 tons
Bucket Capacity Range	6.4-7.6 m <sup>3</sup>	8.3-10.0 yd <sup>3</sup>
Cat Truck Match	772/773/775	

		TRANSI	/IISSION		
Transmission	Туре		Cat Planetary	Power Shift	t
Forward 1	7.3 km/h	5.0 mph	Reverse 1	7.6 km/h	5.0 mph
Forward 2	12.2 km/h	8.0 mph	Reverse 2	13.6 km/h	8.0 mph
Direct Drive			Direct Drive		
Forward 1	Lock-up dis	sabled	Reverse 1	Lock-up dis	sabled
Forward 2	12.7 km/h	8.0 mph	Reverse 2	14.1 km/h	9.0 mph
Forward 3	22.0 km/h	14.0 mph	Reverse 3	25.0 km/h	16.0 mph
Forward 4	39.0 km/h	24.0 mph	Reverse 4	40.8 km/h	25.4 mph

HYDRAULIC SYS	STEM – 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	
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 – ST	EERING
Steering System – Circuit	Pilot, load sensing
Steering System – Pump	Piston, variable displacement
Steering Cut Off Pressure	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
DEF 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-3, 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 2.574 metric tonnes.

SOUND PERFORM	ANCE – 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 – STAGE III, TIER	BRAZIL MAR-1 AND C 3/STAGE IIIA EQUIVA	
	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" and UK Noise Regulation 2001 No. 1701.
- 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.

#### **STANDARD & OPTIONAL EQUIPMENT**

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

ELECTRICAL	STANDARD	OPTIONAL
Alarm, back-up	•	
Alternator, single 145 amp	•	
Converter, 10/15 amp, 24V to 12V	•	
Lighting system (LED, work lights, access and service platform lighting)	•	
Starting and charging system, 24V	•	
Auxiliary start receptacle	•	
OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Air conditioner	•	
Cab precleaner	•	
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® Detect, object detection system		•
Cat Production Measurement		•
Cat Production Measurement ready	•	
Cat Vision, rear vision camera system	•	
Heater, defroster	•	
Horn, electric	•	
Light, directional	•	
Lights, LED	•	
Lunchbox, beverage holders	•	
Mirrors, rearview (externally mounted)	•	
Radio, AM/FM	•	
Radio, CB ready		•
Seat, Cat Comfort (cloth), air suspension, six-way adjustable	•	
Seat belt minder	•	
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	•	

POWER TRAIN	STANDARD	OPTIONAL
Antifreeze -50° C (-58° F)		•
Brakes, oil-cooled, multi-disc, service/secondary	•	
Case drain screens	•	
Crankcase guard	•	
Electro hydraulic parking brake	•	
Engine block heater 120V or 240V		•
Engine, C15 diesel, turbocharged/ aftercooled	•	
Ground level engine shutoff	•	
High ambient cooling – software		•
Turbine precleaner, engine air intake	•	
Starting aid, ether, automatic		•
Throttle lock, electronic	•	
Torque converter, neutralizer	•	
Transmission, planetary powershift, 4F/3R electronic control	•	
Manual switch and automatic fuel priming	•	
ADDITIONAL EQUIPMENT	STANDARD	OPTIONAL
Automatic bucket lift kickout/positioner	•	
Automatic bucket int kickout positioner		
Base machine price includes a rim allowance	•	
Base machine price includes a rim	•	•
Base machine price includes a rim allowance	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM)	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic tank	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic tank Front and rear roading fenders Hitch, drawbar with pin Hydraulic, steering and brake filtration/	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic tank Front and rear roading fenders Hitch, drawbar with pin Hydraulic, steering and brake filtration/screening system	•	•
Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic tank Front and rear roading fenders Hitch, drawbar with pin Hydraulic, steering and brake filtration/ screening system Hydraulically driven demand fan	•	•
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Base machine price includes a rim allowance Cat Clean Emission Module (CEM) Cold weather starting Doors, service access (locking) Ecology drains for engine, radiator, hydraulic tank Front and rear roading fenders Hitch, drawbar with pin Hydraulic, steering and brake filtration/ screening system Hydraulically driven demand fan Oil sampling valves Premixed 50% concentration of extended life coolant with freeze protection to -34° C (-29° F) Rear access to cab and service platform Steering, load sensing		•





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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