

Product Specifications For 988 GC



Operating Specifications

Operating Weight	50996 kg
Bucket Capacity Range	6.4-7.6 m3 (8.3-10 yd3)
Rated Payload - Quarry Face	11.3 t
Cat Truck Match - High Lift	772/773/775

Engine

Engine Model	Cat® C15
Rated Speed	2000 rpm
Peak Power Speed	1600 rpm
Gross Power - SAE J1995:2014	340 kW
Net Power - SAE J1349:2011	334 kW
Bore	137 mm
Stroke	171.5 mm
Displacement	15.2 l
Peak Torque (1,200 rpm) - SAE J1995:2014	2411 N·m
Torque Rise	16%
Note (1)	Two engine emission options are available: 1. Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan emission standards. 2. Meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.

Note (2)	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.
Note (3)	Net power at the flywheel when the fan is at maximum speed is 304 kW / 408 hp per SAE reference conditions.

Transmission

Transmission Type	Cat planetary power shift
Forward - 1	7.3 km/h
Forward - 2	12.2 km/h
Reverse - 1	7.6 km/h
Reverse - 2	13.6 km/h
Direct Drive - Forward 1	Lock-up disabled
Direct Drive - Forward 2	12.7 km/h
Direct Drive - Forward 3	22 km/h
Direct Drive - Forward 4	39 km/h
Direct Drive - Reverse 1	Lock-up disabled
Direct Drive - Reverse 2	14.1 km/h
Direct Drive - Reverse 3	25 km/h
Direct Drive - Reverse 4	40.8 km/h

Note	Travel speeds based on 35/65-R33 tires.
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Hydraulic System - Lift/Tilt

Lift/Tilt System - Circuit	EH - Load Sense
Lift/Tilt System - Pump	Variable displacement piston
Maximum Flow at 2,165 rpm	600 L/min
Relief Valve Setting - Lift/Tilt	31700 kPa
Cylinders, Double Acting - Lift, Bore and Stroke	190 mm x 1216 mm (7.5 in x 48 in)
Cylinders, Double Acting - Tilt, Bore and Stroke	170 mm x 722 mm (6.7 in x 28.4 in)
Pilot System	Variable displacement piston
Relief Valve Setting	3450 kPa

Hydraulic Cycle Times

Rack Back	3.8 s
Raise	7.5 s
Dump	3 s
Lower Float Down	4.6 s
Total Hydraulic Cycle Time - Empty Bucket	18.9 s

Hydraulic System - Steering

Steering System - Circuit	Pilot, load sensing
Steering System - Pump	Piston, variable displacement
Maximum Flow at 2,165 rpm	200 L/min
Relief Valve Setting - Steering	27600 kPa
Total Steering Angle	70°

Steering Cycle Times - High Idle

3 s

Steering Cycle Times - Low Idle

5.2 s

Air Conditioning System

Air Conditioning

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. See the label or instruction manual for identification of the gas. - If equipped with R134a (Global Warming Potential = 1430), the system contains 1.8 kg (3.9 lb) of refrigerant, which has a CO₂ equivalent of 2.574 metric tonnes (2.837 tons).

Axles

Front

Fixed

Rear

Trunnion

Oscillation Angle

+/-12.5°

Brakes

Brakes

ISO 3450:2011

Operator's Cab

ROPS/FOPS

Rollover Protective Structure/Falling Objects Protective Structure (ROPS/FOPS) meet ISO 3471:2008 and ISO 3449:2005 Level II standards

Sound Performance - Tier 4 Final / Stage V

Operator Sound Pressure Level (ISO 6396:2008)

73 dB(A)

Machine Sound Power Level (ISO 6395:2008)

113 dB(A)

Operator Sound Pressure Level (ISO 6396:2008)*

72 dB(A)

Machine Sound Power Level (ISO 6395:2008)**

110 dB(A)

Note (1)	* For machines in European Union countries and in countries that adopt the “EU Directives” and “UK Directives.”
Note (2)	** European Union Directive “2000/14/EC” as amended by “2005/88/EC” and UK Noise Regulation 2001 No. 1701.
Note (3)	The machine sound power level was measured according to ISO 6395:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
Note (4)	The operator sound pressure level was measured according to ISO 6396:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
Note (5)	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.

Sound Performance - Tier 3 / Stage IIIA

Operator Sound Pressure Level (ISO 6396:2008)	74 dB(A)
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Machine Sound Power Level (ISO 6395:2008)	113 dB(A)
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Operator Sound Pressure Level (ISO 6396:2008)*	73 dB(A)
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Machine Sound Power Level (ISO 6395:2008)**	110 dB(A)
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Note (1)	* For machines in European Union countries and in countries that adopt the “EU Directives” and “UK Directives.”
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Note (2)	** European Union Directive “2000/14/EC” as amended by “2005/88/EC” and UK Noise Regulation 2001 No. 1701.
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Note (3)	The machine sound power level was measured according to ISO 6395:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
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Note (4)

The operator sound pressure level was measured according to ISO 6396:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.

Note (5)

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.

Service Refill Capacities

Fuel Tank	535 l
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Cooling System	101 l
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Engine Crankcase	34 l
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Diesel Exhaust Fluid Tank	21 l
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Transmission	75 l
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Differential - Final Drives - Front	186 l
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Differential - Final Drives - Rear	170 l
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Hydraulic System Factory Fill	355 l
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Note

Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) and are compatible* with 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. * While Caterpillar engines are compatible with these alternative fuels, some regions may not allow their use. ** Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels. *** Engines with no aftertreatment devices are compatible with higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).

Dimensions (Approximate) - High Lift

Ground to Top of ROPS	4100 mm
Ground to Top of Exhaust Stacks	4060 mm
Ground to Top of Hood	3270 mm
Ground to Fuel Tank Clearance	686 mm
Rear Axle - Centerline to Bumper	3132 mm
Front Axle Centerline to Bucket Tip	5100 mm
Wheel Base	3810 mm
Maximum Overall Length	12042 mm
Ground to Lower Hitch Clearance	459 mm
Ground to Center of Front Axle	978 mm
Clearance at Maximum Lift (45° Dump)	3732 mm

B-Pin Height - Maximum Lift	5755 mm
Maximum Overall Height - Bucket Raised	7582 mm
Reach at Maximum Lift (45° Dump)	2342 mm

Note

Specifications are calculated with 6.9 m³ (9 yd³) rock bucket equipped with Michelin XLDD1 35/65 R33 tires.

988 GC Standard Equipment

NOTE

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

ELECTRICAL

Alarm, back-up
 Alternator, single 145 amp
 Batteries, maintenance free
 Converter, 10/15 amp, 24V to 12V
 Lighting system (LED, work lights, access and service platform lighting)
 Starting and charging system, 24V
 Auxiliary jump start receptacle

OPERATOR ENVIRONMENT

Cab precleaner
 Lights, LED
 AM/FM radio
 Graphical Information Display, displays real time operating information, performs calibrations and customizes operator settings
 Air conditioner
 Cat Vision, rear vision camera system
 Cab, sound suppressed and pressurized, integrated rollover protective structure/falling objects protective structure (ROPS/FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port
 Controls, lift and tilt function
 Heater, defroster
 Horn, electric
 Instrumentation, gauges
 – Coolant temperature
 – Engine hour meter
 – Hydraulic oil temperature
 – Powertrain oil temperature

Light, cab, dome
Lunchbox, beverage holders
Mirrors, rearview (externally mounted)
Seat, Cat Comfort Cloth, air suspension, six-way adjustable
Seat belt minder
Seat belt, retractable, 76 mm (3 in) wide
Steering and Transmission Integrated Control (STIC™) system
UV glass
Transmission gear indicator
Wet-Arm wipers/washers (front and rear)
– Intermittent front and rear wipers
Lights, directional
Cat Production Measurement ready

POWERTRAIN

Brakes, oil-cooled, multi-disc, service/secondary
Case drain screens
Electro hydraulic parking brake
Engine, C15 MEUI™ diesel, turbocharged/aftercooled
Ground level emergency engine shutdown switch
Turbine precleaner, engine air intake
Manual switch and automatic fuel priming
Torque converter, neutralizer
Transmission, planetary power shift, 4F/4R electronic control
Cat Integrated Powered Electronics
Automatic retarding controls
Crankcase guard

ADDITIONAL EQUIPMENT

Automatic bucket lift kickout/positioner
Base machine price includes a rim allowance
Hydraulically driven demand fan
Couplings, Cat O-ring face seals
Doors, service access (locking)
Ecology drains for engine, radiator, hydraulic tank
Fuel tank, 535 L (141 gal)
Hoses, Cat XT™
Hydraulic, steering and brake filtration/screening system
Cat Clean Emission Module
Oil sampling valves
Premixed 50 percent concentration of extended life coolant with freeze protection to –34° C (–29° F)
Rear access to cab and service platform
Steering, load sensing
Toe kicks
Vandalism protection caplocks

988 GC Optional Equipment

NOTE

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

POWERTRAIN

High ambient cooling – software

Starting aid, ether, automatic

Antifreeze -50°C (-58°F)

OPERATOR ENVIRONMENT

Cat Production Measurement

CB radio-ready

Cat Detect, object detection system

ADDITIONAL EQUIPMENT

Front and rear roading fenders