988H
Wheel Loader

Engine		
Engine Model	Cat® C18 ACERT®	
Gross Power	414 kW	555 hp
Net Power – ISO 14396	397 kW	540 hp
Net Power – EEC 80/1269	373 kW	501 hp

Operating Specifications		
Rated Payload	11.4 tonnes	12.5 tons
Operating Weight	50 144 kg	110,549 lb
Buckets		
Bucket Capacities	6.4 m^3-7.7 m^3	8.3 yd^3-10 yd^3

988H Features

Productivity
Productivity is critical to your bottom line. The 988H offers features and systems that help to improve performance and lower your cost-per-ton.

Efficiency
From everyday production to daily maintenance, the 988H offers features to minimize cost.

Reliability
The 988H offers field proven components and systems, high hour machine life standards and multiple rebuild options for continued uptime and long machine life.

Operator Comfort
From low effort controls to reduced operator sound, the 988H has a number of features that minimize operator fatigue, resulting in a safe, productive work site.

Serviceability
Designed to ensure minimal downtime with attention to ground level access and grouped service points, the 988H maximizes production and minimizes service time.

Sustainability
With a number of features and options that lower customer cost and waste, the 988H can assist you in being an environmental steward.

Safety
The 988H offers a number of features that optimize visibility, allow for safe machine service and enhance operator health and well-being.

Contents

Since 1963, the Cat® 988 Wheel Loader has helped more customers than any other manufacturer's model in this wheel loader size class. Today, we continue that legacy with the 988H update.

We know times are tough...the economy is challenging... but the 988H update is our commitment to bringing you, our customers, the absolute best value.

With the 988H update, Caterpillar continues the tradition of incorporating customer driven enhancements that increase productivity and lower fuel consumption, improve reliability of key systems and components and improve safety and ergonomics for your operators.

Productivity

Designed with the right features to meet the daily demands of your job site

Positive Flow Control Hydraulics

The 988H Positive Flow Control (PFC) Hydraulic System is setting a new standard for hydraulic response, performance and efficiency. The implement system is equipped with one electronically-controlled, fully variable piston pump for fast, productive cycles. PFC has concurrent pump and valve control. This is achieved through an integrated solenoid with a force feedback system which keeps the displacement where it is required for optimized pump control. By optimizing pump control, hydraulic oil flow is proportionate to implement lever stroke.

Benefits:

- Lowered fuel consumption by up to five percent
- Improved hydraulic response, giving the operator better feel and control of the bucket
- Improved power efficiency and lower system heat

Engine

The Cat® C18 engine with ACERT® Technology is U.S. EPA Tier 3 and EU Stage III compliant. It features increased horsepower and efficient fuel management for quick response, high productivity and exceptional service life. A sculptured cylinder block provides greater strength and is lighter weight.

Fuel Efficiency

Fuel Management

New and current features are built into the 988H and depending on application requirements can provide up to 15 percent less fuel burn.

988H Fuel Management System

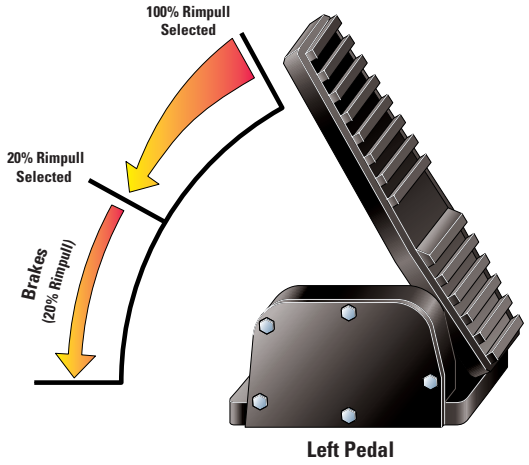
The Cat® 988H Wheel Loader Fuel Management System delivers solid productivity and fuel savings of as much as 15 percent in truck loading and more in load and carry operations. By lowering engine speed during all but the digging portion of each cycle, the proprietary system minimizes impact on productivity while gaining significant fuel savings.

Auto Idle Kickdown (AIK)

If an operator is not actively operating the 988H for a period of time, the AIK system will temporarily reduce the engine speed to save fuel. After an automated engine speed reduction, the system will automatically resume the engine speed to the previous setting when the operator engages the implement control pod of the F-N-R switch or the STIC Steer.

Engine Idle Shutdown

This new feature will automatically shutdown the engine after the machine has been in a safe idling state for an extended amount of time. The operator in the cab will be audibly and visually warned before the shutdown occurs.



Operating Efficiency

Operator and job site efficiency

Impeller Clutch Torque Converter (ICTC) and Rimpull Control System (RCS)

ICTC combined with the RCS allows the operator maximum flexibility in the modulating rimpull.

- Left brake pedal modulates rimpull from 100 to 25 percent for reduced tire slippage and wear. After 25 percent is achieved, further pedal travel applies the brake.
- RCS reduces the potential for wheel slippage without reducing the hydraulic efficiency. An in-cab switch allows the operator to set percentage of maximum rimpull to meet operating conditions. Four settings are available, and operators can set rimpull at 70, 80, 90 and 100 percent.
- A lock-up clutch torque converter provides direct drive efficiency which translates into improved fuel efficiency in certain applications.

Variable Shift Control

VSC matches transmission shifting patterns to machine application requirements, by shifting at lower engine rpms. This both improves shift quality and fuel efficiency in certain applications.

Reliability

Maximize uptime, long life – it's what you expect from your bottom line

Structures

Combining the use of robotic welding and castings in critical high-stress areas, more than 90 percent of the 988H structure is robotically-welded to provide highly consistent welds and increased strength. Castings are also used in several areas to increase strength by helping to spread the loads and reduce the number of parts.

Front Frame and Rear Frame

Highly engineered and a field-proven combination, the 988H uses high-strength plates and castings which distribute loads and increases structure robustness. A key differentiator from other manufacturers' machines is the box-section rear frame and box-shaped loader tower. The box section absorbs torsional forces generated in a loading cycle, maintaining alignment for hitch pins and driveline. The box-shaped loader tower resists shock and torsional loads, maintaining hitch and loader linkage pin alignment, maximizing pin life.

Linkage

The 988H features the revolutionary box boom linkage design. Known for its durability, the 988H box boom linkage has high strength castings in pin joint areas that resist twisting and minimize stress. A B-pin bucket mount is placed at a height to prevent bucket healing due to better stress distribution from bucket to boom. Additionally, a four-hinge plate bucket design is utilized to increase bucket durability.

Axle-Shaft, Oil Disc Brakes

These brakes are adjustment-free, fully hydraulic and completely sealed. Disc face grooves provide cooling even when brakes are applied for a longer component life.

- Location of the brakes allow for improved serviceability. The axle shaft brake design allows for brake service while leaving the final drive intact.
- Axle-shaft brakes require less force by operating on the low torque side of the axle. Combined with improved axle oil circulation for increased cooling, the oil-enclosed, multiple disc brake design improves durability.

Operator Comfort

Best-in-class working environment

Best-in-Class Working Environment

A comfortable operator is a productive operator, which is why Caterpillar has designed the 988H with a best in-class working environment for this size wheel loader class.

- World class cab with over 3.18 m^3 (112 ft^3) of volume incorporates features for operator comfort and ergonomics, visibility and ease of operation.
- Ergonomic controls are fully adjustable and designed for low-effort comfort. Switches and controls for various systems are located within easy reach of the operator.
- Interior noise levels are reduced to a quiet 72 dB(A).
- Caterpillar Monitoring System (EMS-III) provides information on machine's major components. This includes gauge displays for the fuel tank level; temperature gauges for the engine coolant, torque converter and hydraulic oil; tachometer analog gauge with digital readout for gear selection and ground speed and a monitoring system.
- Optional features are available for improved visibility. These options include a rear vision camera to clearly monitor movement behind the wheel loader and high intensity discharge (HID) lights for greater visibility at night.
- With the update, new options to include heated seat for cold weather operations and radio offerings of Bluetooth, MPS and satellite options are now available.

Technology Solutions

Systems and features to achieve even greater productivity

New Payload Control System 3.0 (Optional)

The new Payload Control System (PCS) 3.0 is designed to help the 988H owners and operators manage truck payloads and produce accurate records of material movement. This advanced electronic control system is designed for on-the-go weighing. With the new PCS 3.0 system, accuracy is now ±1 percent, has improved interface, can record up to 1,000 trucks and can store 25 different materials for continued record accuracy of job site production.

Automatic Kickouts

Operators can easily set the dump height, return to dig/carry or bucket angle from the comfort of the cab. Standard, in-cab programmable kickouts are located in the upper left panel. This feature provides more flexibility and improved productivity when the job requires load and dump target heights.

Cat Product Link

Cat® Product Link enables convenient, remote monitoring of equipment. Get usable information to keep jobs on schedule, maintain machine health and reduce fleet owning and operating costs.

- Simplify fleet management and monitor machine use
- Link all machines, regardless of brand
- Three levels of insight to meet specific business requirements

Buckets and Ground Engaging Tools

Provide flexibility to match the machine to your application

New Performance Series Bucket Offering

With the 988H update, Caterpillar introduces a new bucket offering ranging from 6.4 m³ (8.3 yd³) to 7.7 m³ (10 yd³). The new buckets offer design enhancements to include larger throat opening, increased floor length and improved setback angle. These design enhancements yield improved bucket fill factor and load retention in carry position.

Spade Edge Rock Buckets

These buckets with bolt-on segments are available in 6.4 m³ (8.3 yd³) to 7.7 m³ (10 yd³). Each accepts up to two sets of sidebar protectors (4), featured shouldered, double-strap adapters, easily changed bolt-on segments and several tip options.

General Purpose Buckets

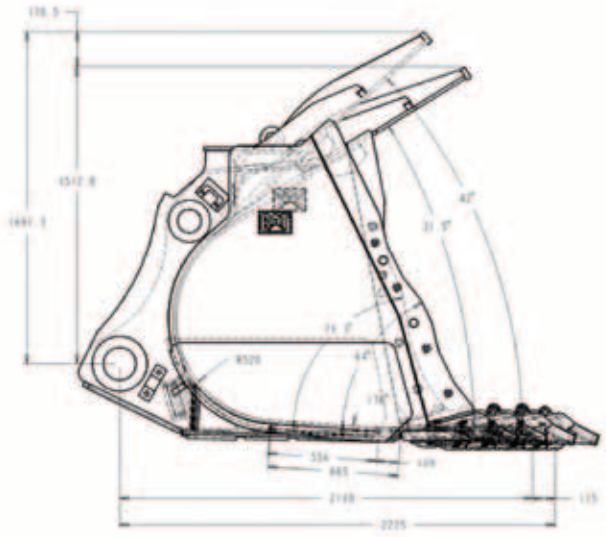
Available in 6.3 m³ (8.2 yd³) Straight Edge Rock, as well as 7.0 m³ (9.2 yd³) and 7.7 m³ (10 yd³) General Purpose configurations. The General Purpose bucket features double strap adapters and accepts two sets of sidebar protectors, bolt-on segments and tips. The General Purpose bucket is available with bolt-on cutting edge, bolt-on adapters or bolt-on adapters with segments.

Heavy Duty Rock Bucket

This bucket is available with a 6.4 m³ (8.33 yd³) capacity and is recommended for use in face loading where abrasion and moderate impact is encountered. This bucket features additional wear protection items including independently attached edge and adapter covers, additional liners and wear plates, one set of sidebar protectors and a thicker base edge.

Heavy Duty Granite Bucket

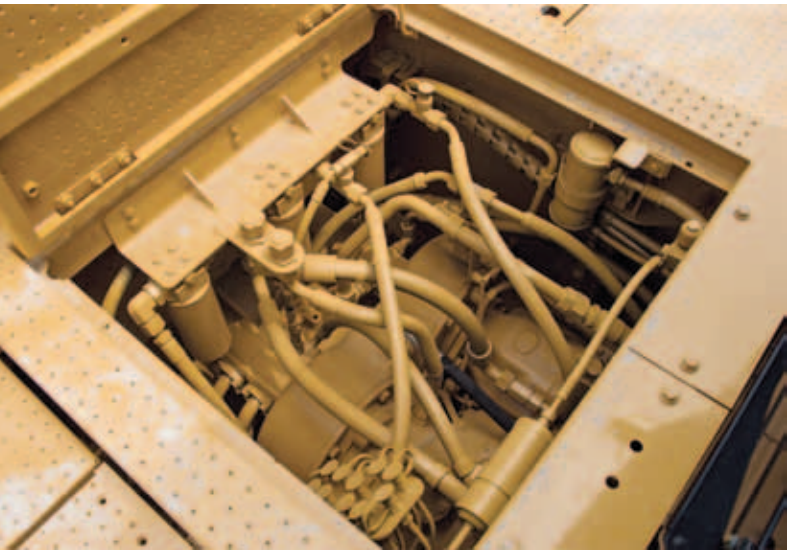
This 6.4 m³ (8.33 yd³) capacity bucket is recommended for use in face loading where moderate abrasion and high impact is encountered. It features additional wear protection items including four sidebar protectors, thicker base edge and adapters, additional liners and wear plates and bolt-on half arrow segments.



Material Density				Bucket Volume	
kg/m³	tonnes/m³	lb/yd³	tons/yd³	m³	yd³
1483-1614	1.47-1.61	2,500-2,750	1.25-1.38	7.7	10
1638-1801	1.64-1.80	2,700-3,000	1.39-1.53	6.9	9
1766-1942	1.77-1.94	3,000-3,300	1.50-1.65	6.4	8.33

Serviceability

Increase uptime by reducing service time



The 988H is designed to ensure minimal downtime through ground level or platform access, grouped service points, and attention to key serviceable areas on the machine.

- Maintain three points of contact at all times through ground level or platform accessible service areas.
- Ground level viewable site gauges on all major systems.
- Electrical disconnect switch and hydraulic lockout switch allow service technicians to perform maintenance while the machine stays static. Other shutdown or lockout devices include ground level engine shutdown and ground level steering hitch lock lever.
- Longer service intervals on fluids and filters.
- Swing-out doors on both sides of the engine compartment provide easy access to the engine oil dipstick and filler spout, S·O·S℠ ports, fuel filters, air conditioner compressor, engine oil filters, alternator, starting receptacle, air filter service indicator, cooler fill and ether starting aid.
- Maintenance-free batteries
- Ecology drains for ease of service and prevention of spilling potential environmental contaminants. Ecology drains are standard on the hydraulic, engine, transmission and coolant systems.
- Centralized remote pressure taps.

Customer Support

Count on Cat dealers for business solutions

Selection
Cat dealers can help customers compare and choose the right machine for their business.

Financing
Cat dealers offer financing options to meet a variety of needs.

Operation
Improve operating technique for better productivity and profit with the latest Cat dealer training resources.

Product Support
Cat dealers are with customers every step of the way with unsurpassed worldwide parts support, trained technicians and customer support agreements.

Sustainability

Protecting the environment

Protecting the Environment

With the 988H having a long legacy, it is only fitting this machine has features and services that show environmental responsibility.

- Burns up to five percent less fuel than the previous model. Offers a number of fuel saving features to further lower fuel consumption, which not only benefits operating cost but reduces the 988H's CO_2 footprint.
- First in this wheel loader size class to meet Tier 3 emissions, and Caterpillar continues to develop technology to meet changing regulatory requirements.
- Maintenance-free, ease of maintenance or extended maintenance, attention has been paid to lowering routine maintenance cost while eliminating waste to the environment.
- Built for multiple lives, the Cat 988H is one of the most rebuilt products. To assist with maximizing machine life, Caterpillar provides a number of sustainable options such as our Reman and Certified Rebuild programs. In these programs, reused or remanufactured components can deliver cost savings of 40 to 70 percent, which lowers operating cost while benefiting the environment.
- Caterpillar offers retrofit packages to bring new features to older machines, maximizing your resource. And, when you go through the Cat Certified Rebuild program, these retrofit kits are part of the rebuild process.

Safety

Keeping your people safe and productive is our number one priority

At Caterpillar, we have designed the 988H with your most important asset in mind – People. Drawing from a history of technological advancements and practical wisdom, you can be assured that your people are protected while working in, on or around the 988H Wheel Loader.

Visibility

Good visibility, whether it be positioning to the truck or watching for people and vehicles on the site, the 988H offers a number of standard and optional features to enhance job site visibility. Standard and optional features include articulated wiper/washer system with intermittent features, optional rear vision camera, optional high intensity discharge (HID) lights, optional warning beacon and optional turn signals.

Access and Egress

Getting on and off the machine is one of the leading causes of injury on a job site. The 988H has a number of features to ensure your operator gets safely on and off the 988H. The 988H includes primary and secondary stairwell exits, punch stamped tread plates located throughout the machine, ground level night time stairwell light switch, full perimeter railings on the upper platform, side platform emergency egress and toe kicks and optional roading fenders.

Maintenance Safety

Daily and routine maintenance should not pose a safety hazard to your operator or service technician. With the 988H, design efforts were taken to group service points with convenient access. As seen in the serviceability section, all service points are at ground level or platform access to maintain three points of contact, and a number of disconnect switches are available to ensure the 988H is static during service.

Operator Health and Well Being

For the 988H, the operator and safety go hand-in-hand. The 988H offers many features that enhance operator comfort and aid in keeping the operator safe. In the cab, all controls are ergonomically designed for easy adjustment, low-effort and easy to reach controls minimize repetitive motion and potential strains. With a cab filtration system, low operator sound and optional features such as ride control or secondary steering, all effort has been made to protect the operators from environmental elements that can cause issues with their health or well-being.

988H Wheel Loader Specifications

Engine

Engine Model	Cat® C18 ACERT®	
Gross Power	414 kW	555 hp
Net Power – ISO 14396	397 kW	540 hp
Net Power – EEC 80/1269	373 kW	501 hp
Net Power – ISO 9249	373 kW	501 hp
Gross Power – ISO 3046-2	388 kW	520 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,104.5 in^3

- These ratings apply at 1,800 rpm when tested under the specific standard conditions for the specified standard.
- Power rating conditions based on standard air conditions of 25° C (77° F) and 99 kPa (29.32 in Hg) dry barometer, using 35° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 30° C (86° F) [reference a fuel density of 838.9 g/L (7.001 lb/gal).
- Net power advertised is the power available when the engine is equipped with alternator, air cleaner, muffler and hydraulic fan drive.
- No derating required up to 3048 m (10,000 ft) altitude.
- Direct-electric, 24-volt starting system with 95 amp alternator and four high performance, maintenance-free batteries with 1,900 cold cranking amps.

Operating Specifications

Rated Payload	11.4 tonnes	12.5 tons
Operating Weight	50 144 kg	110,549 lb

Transmission

Converter Drive – Forward 1	6.7 km/h	4.2 mph
Converter Drive – Forward 2	11.8 km/h	7.3 mph
Converter Drive – Forward 3	20.8 km/h	12.9 mph
Converter Drive – Forward 4	36 km/h	22.3 mph
Converter Drive – Reverse 1	7.6 km/h	4.7 mph
Converter Drive – Reverse 2	13.5 km/h	8.4 mph
Converter Drive – Reverse 3	23.7 km/h	14.7 mph
Direct Drive – Forward 1	Lock-up disables	
Direct Drive – Forward 2	12.3 km/h	7.7 mph
Direct Drive – Forward 3	21.9 km/h	13.6 mph
Direct Drive – Forward 4	38.6 km/h	24 mph
Direct Drive – Reverse 1	7.9 km/h	4.9 mph
Direct Drive – Reverse 2	14.1 km/h	8.8 mph
Direct Drive – Reverse 3	25.1 km/h	15.6 mph

- Travel speeds based on two percent rolling resistance and 35/65-33 tires.

Hydraulic Cycle Time

Raise	9.4 Seconds
Dump	2.4 Seconds
Lower Float Down (Empty)	3.8 Seconds
Total Hydraulic Cycle Time	15.6 Seconds

Service Refill Capacities

Fuel Tank	712 L	188 gal
Cooling System	103 L	27.2 gal
Crankcase	60 L	15.9 gal
Transmission	70 L	18.5 gal
Differentials and Final Drives – Front	186 L	49 gal
Differentials and Final Drives – Rear	186 L	49 gal
Hydraulic System (factory fill)	470 L	124.2 gal
Hydraulic System (tank only)	267 L	70.5 gal

Buckets

Bucket Capacities	6.4 m^3-7.7 m^3	8.3 yd^3-10 yd^3
Max. Bucket Capacity	7.7 m^3	10 yd^3

Axles

Maximum Single-Wheel Rise and Fall	568 mm	22.4 in
Front	Fixed	
Rear	Oscillating ±13°	

Brakes

Brakes	Meet SAE ISO 3450:1996

Cab

Cab – ROPS/FOPS	Meets SAE and ISO standards
Sound Performance	Meets ANSI, SAE and ISO standards

- Cat cab with integrated Rollover Protective Structure (ROPS) and Falling Object Protective Structure (FOPS) is standard.
- ROPS meets SAE J1040 APR99 and ISO 3471:1994 criteria.
- FOPS meets SAE J231 JAN81 and ISO 3449:1992 Level II criteria.
- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 76 dB(A), for the cab offered by Caterpillar, when properly installed, maintained and tested with the doors and windows closed.
- 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 noisy environment.
- The exterior sound pressure level for the standard machine measured at a distance of 15 m (49.2 ft) according to the test procedures specified in SAE J88 JUN86 mid-gear-moving operation is 81 dB(A).
- The machine sound power level is 114 dB(A) measured according to the test procedures and conditions specified in ISO 6395:2008 for standard machine configuration. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- The machine sound power level is 111 dB(A), measured according to the test procedures and conditions specified in ISO 6395:2008 for a sound suppression machine configuration. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- The operator sound pressure level is 72 dB(A), measured according to the test procedures and conditions specified in ISO 6306:2008 for a sound suppression machine configuration. The measure was conducted at 70 percent of the maximum engine cooling fan speed.

Steering

Steering	Meets SAE and ISO standards
Total Steering Angle	86 Degrees

- Full hydraulic, load-sensing steering system meets SAE J1511 FEB94 and ISO 5010:1992 specified standards.
- Center point frame articulation.
- Front and rear wheels track.

Loader Hydraulic System

Main Hydraulic System Output at 2,010 rpm and 6900 kPa (1,000 psi)	492 L/min	130 gal/min
Relief Valve Setting	35 000 kPa	5,075 psi
Cylinders, Double Acting: Lift, Bore and Stroke	220 × 911 mm	8.7 × 35.9 in
Cylinder, Double Acting: Tilt, Bore and Stroke	220 × 1770 mm	8.7 × 69.7 in
Pilot System, Gear-Type Pump Output at 2,010 rpm and 2500 kPa (363 psi)	76 L/min	20.1 gal/min
Relief Valve Setting (low idle)	2400 kPa	348.1 psi

- With SAE 10W oil at 66° C (150° F).

988H Wheel Loader Specifications

Operation/Bucket Specifications

		988H – 3.88 m Tires: 35/65 R33 XLDD1 SLR: 955 mm		
Bucket Type		**General Purpose**	**General Purpose**	**Rock**
Ground Engaging Tools		**BOCE**	**BOCE**	**Teeth & Segments**
Cutting Edge Type		**Straight**	**Straight**	**Spade**
Bucket Part No. (Group Level)		**333-0931**	**333-0921**	**329-1611**
Struck Capacity – ISO	m^3 (yd^3)	5.6 (7.3)	6.3 (8.2)	6.4 (8.4)
Heaped Capacity – ISO	m^3 (yd^3)	6.9 (9.0)	7.6 (10.0)	7.7 (10.0)
Overall Height	mm (ft/in)	7634 (25'1")	7738 (25'5")	7707 (25'3")
Dump Clearance at 45° Dump				
Bare	mm (ft/in)	3730 (12'3")	3646 (12'0")	3429 (11'3")
Teeth	mm (ft/in)	—	—	3236 (10'7")
Reach at 45° Dump				
Bare	mm (ft/in)	1754 (5'9")	1832 (6'0")	2047 (6'9")
Teeth	mm (ft/in)	—	—	2231 (7'4")
Reach with Level Boom Level Bucket				
Bare	mm (ft/in)	3806 (12'6")	3920 (12'10")	4226 (13'10")
Teeth	mm (ft/in)	—	—	4492 (14'9")
Digging Depth	mm (in)	227 (9")	232 (9")	232 (9")
Overall Length – Bucket Level Ground (Teeth)	mm (ft/in)	11 830 (38'10")	11 947 (39'2")	12 520 (41'1")
Turning Radius – Corner SAE Carry (Teeth)	mm (ft/in)	8680 (28'6")	8712 (28'7")	8791 (28'10")
Reach at 45° Dump and 2.13 m (7 ft 0 in) Height				
Bare	mm (ft/in)	2745 (9'0")	2794 (9'2")	3180 (10'5")
Teeth	mm (ft/in)	—	—	3340 (10'11")
Full Dump at Maximum Lift	degrees	–51.4	–51.4	–51.4
Tipping Load* at Operating Weight				
Straight	kg (lb)	33 040 (72,841)	32 692 (72,073)	31 860 (70,240)
Articulated 35°	kg (lb)	28 362 (62,528)	28 015 (61,762)	27 206 (59,978)
Articulated 43°	kg (lb)	26 279 (57,935)	25 931 (57,168)	25 132 (55,406)
Tipping Load** at Operating Weight				
Straight	kg (lb)	34 724 (76,553)	34 390 (75,817)	33 539 (73,941)
Articulated 43°	kg (lb)	29 277 (64,545)	28 954 (63,833)	28 127 (62,009)
Articulated 35°	kg (lb)	31 057 (68,469)	30 731 (67,750)	29 895 (65,907)
Breakout Force – SAE Rated	kg (lb)	49 062 (108,164)	45 977 (101,361)	39 289 (86,617)
Operating Weight	kg (lb)	49 598 (109,346)	49 835 (109,868)	50 360 (111,025)
Weight Distribution at SAE Carry				
Front	kg (lb)	25 326 (55,834)	25 746 (56,761)	26 752 (58,979)
Rear	kg (lb)	24 272 (53,511)	24 089 (53,107)	23 608 (52,047)

Note: Tire spec used for Tipping Load specifications includes 35/65R33 (L-4) Michelin XLDD1 tires.

*Tipping Loads were calculated within the guidelines of ISO 14397-1:2007 to include tire squash (Tire pressure at 634 kPa [92 psi]).

**Tipping Load is calculated without tire squash.

Operation/Bucket Specifications

		988H – 3.88 m Tires: 35/65 R33 XLDD1 SLR: 955 mm		
Bucket Type		**Rock**	**Rock**	**Rock**
Ground Engaging Tools		**Teeth & Segments**	**Teeth & Segments**	**Teeth & Segments**
Cutting Edge Type		**Spade**	**Spade**	**Spade**
Bucket Part No. (Group Level)		**333-0891**	**333-0911**	**333-0950**
Struck Capacity – ISO	m^3 (yd^3)	5.6 (7.3)	5.1 (6.7)	5.1 (6.7)
Heaped Capacity – ISO	m^3 (yd^3)	6.9 (9.0)	6.4 (8.3)	6.4 (8.3)
Overall Height	mm (ft/in)	7605 (24'11")	7530 (24'8")	7530 (24'8")
Dump Clearance at 45° Dump				
Bare	mm (ft/in)	3507 (11'6")	3563 (11'8")	3513 (11'6")
Teeth	mm (ft/in)	3314 (10'10")	3371 (11'1")	3345 (11'0")
Reach at 45° Dump				
Bare	mm (ft/in)	1970 (6'6")	1913 (6'3")	1942 (6'4")
Teeth	mm (ft/in)	2153 (7'1")	2097 (6'11")	2100 (6'11")
Reach with Level Boom Level Bucket				
Bare	mm (ft/in)	4116 (13'6")	4036 (13'3")	4092 (13'5")
Teeth	mm (ft/in)	4382 (14'5")	4302 (14'1")	4323 (14'2")
Digging Depth	mm (in)	232 (9")	232 (9")	247 (10")
Overall Length – Bucket Level Ground (Teeth)	mm (ft/in)	12 410 (40'9")	12 330 (40'5")	12 361 (40'7")
Turning Radius – Corner SAE Carry (Teeth)	mm (ft/in)	8762 (28'9")	8740 (28'8")	8753 (28'9")
Reach at 45° Dump and 2.13 m (7 ft 0 in) Height				
Bare	mm (ft/in)	2800 (9'2")	2769 (9'1")	2787 (9'2")
Teeth	mm (ft/in)	2984 (9'9")	2953 (9'8")	2945 (9'8")
Full Dump at Maximum Lift	degrees	–51.4	–51.4	–51.4
Tipping Load* at Operating Weight				
Straight	kg (lb)	32 195 (70,978)	32 435 (71,508)	31 338 (69,089)
Articulated 35°	kg (lb)	27 539 (60,713)	27 779 (61,242)	26 683 (58,826)
Articulated 43°	kg (lb)	25 465 (56,140)	25 705 (56,669)	24 609 (54,254)
Tipping Load** at Operating Weight				
Straight	kg (lb)	33 861 (74,651)	34 088 (75,151)	32 984 (72,717)
Articulated 43°	kg (lb)	28 437 (62,693)	28 658 (63,180)	27 550 (60,737)
Articulated 35°	kg (lb)	30 210 (66,602)	30 432 (67,091)	29 326 (64,653)
Breakout Force – SAE Rated	kg (lb)	41 531 (91,560)	43 299 (95,459)	41 607 (91,728)
Operating Weight	kg (lb)	50 144 (110,549)	49 986 (110,201)	51 093 (112,641)
Weight Distribution at SAE Carry				
Front	kg (lb)	26 362 (58,117)	26 076 (57,489)	28 005 (61,741)
Rear	kg (lb)	23 783 (52,432)	23 910 (52,712)	23 088 (50,901)

Note: Tire spec used for Tipping Load specifications includes 35/65R33 (L-4) Michelin XLDD1 tires.

*Tipping Loads were calculated within the guidelines of ISO 14397-1:2007 to include tire squash (Tire pressure at 634 kPa [92 psi]).

**Tipping Load is calculated without tire squash.

988H Wheel Loader Specifications

Operation/Bucket Specifications

		988H – 4.25 m Tires: 35/65 R33 XLDD1 SLR: 955 mm		
Bucket Type		**General Purpose**	**General Purpose**	**Rock**
Ground Engaging Tools		**BOCE**	**BOCE**	**Teeth & Segments**
Cutting Edge Type		**Straight**	**Straight**	**Spade**
Bucket Part No. (Group Level)		**333-0931**	**333-0921**	**329-1611**
Struck Capacity – ISO	m^3 (yd^3)	5.6 (7.3)	6.3 (8.2)	6.4 (8.4)
Heaped Capacity – ISO	m^3 (yd^3)	6.9 (9.0)	7.6 (10.0)	7.7 (10.0)
Overall Height	mm (ft/in)	8048 (26'5")	8152 (26'9")	8121 (26'8")
Clearance at 45° Dump				
Edge	mm (ft/in)	4143 (13'7")	4059 (13'4")	3842 (12'7")
Tooth Tip	mm (ft/in)	—	—	3650 (12'0")
Reach at 45° Dump				
Edge	mm (ft/in)	1852 (6'1")	1929 (6'4")	2145 (7'0")
Tooth Tip	mm (ft/in)	—	—	2329 (7'8")
Reach with level boom level bucket				
Edge	mm (ft/in)	4176 (13'8")	4290 (14'1")	4596 (15'1")
Tooth	mm (ft/in)	—	—	4862 (15'11")
Digging Depth	mm (in)	258 (10")	263 (10")	264 (10")
Overall Length – Bucket Level Ground (Tooth)	mm (ft/in)	12 270 (40'3")	12 387 (40'8")	12 960 (42'6")
Turning Radius – Corner SAE Carry (Tooth)	mm (ft/in)	8870 (29'1")	8904 (29'3")	8983 (29'6")
Clearance at 45° Dump and 2.13 m (7 ft 0 in) Height				
Edge	mm (ft/in)	2130 (7'0")	2130 (7'0")	2323 (7'7")
Tooth	mm (ft/in)	—	—	2130 (7'0")
Reach at 45° Dump and 2.13 m (7 ft 0 in) Height				
Edge	mm (ft/in)	3132 (10'3")	3184 (10'5")	3248 (10'8")
Tooth	mm (ft/in)	—	—	3432 (11'3")
Full Dump at Maximum Lift	degrees	–48.5	–48.5	–48.5
Tipping Load* at Operating Weight				
Straight	kg (lb)	30 879 (68,076)	30 558 (67,368)	29 764 (65,619)
Articulated 35°	kg (lb)	26 422 (58,251)	26 099 (57,539)	25 325 (55,831)
Articulated 43°	kg (lb)	24 432 (53,864)	24 110 (53,153)	23 344 (51,465)
Tipping Load** at Operating Weight				
Straight	kg (lb)	32 262 (71,126)	31 951 (70,440)	31 143 (68,659)
Articulated 43°	kg (lb)	27 031 (59,593)	26 728 (58,925)	25 941 (57,190)
Articulated 35°	kg (lb)	28 741 (63,363)	28 435 (62,688)	27 641 (60,938)
Breakout Force – SAE Rated	kg (lb)	52 971 (116,780)	49 652 (109,465)	42 469 (93,628)
Operating Weight	kg (lb)	50 626 (111,612)	50 863 (112,134)	51 388 (113,292)
Weight Distribution at SAE Carry				
Front	kg (lb)	25 652 (56,552)	26 093 (57,524)	27 145 (59,844)
Rear	kg (lb)	24 975 (55,060)	24 771 (54,610)	24 243 (53,447)

Note: Tire spec used for Tipping Load specifications includes 35/65R33 (L-4) Michelin XLDD1 tires.

*Tipping Loads were calculated within the guidelines of ISO 14397-1:2007 to include tire squash (Tire pressure at 634 kPa [92 psi]).

**Tipping Load is calculated without tire squash.

Operation/Bucket Specifications

		988H – 4.25 m Tires: 35/65 R33 XLDD1 SLR: 955 mm		
Bucket Type		**Rock**	**Rock**	**Rock**
Ground Engaging Tools		**Teeth & Segments**	**Teeth & Segments**	**Teeth & Segments**
Cutting Edge Type		**Spade**	**Spade**	**Spade**
Bucket Part No. (Group Level)		**333-0891**	**333-0911**	**333-0950**
Struck Capacity – ISO	m^3 (yd^3)	5.6 (7.3)	5.1 (6.7)	5.1 (6.7)
Heaped Capacity – ISO	m^3 (yd^3)	6.9 (9.0)	6.4 (8.3)	6.4 (8.3)
Overall Height	mm (ft/in)	8018 (26'4")	7943 (26'1")	7944 (26'1")
Clearance at 45° Dump				
Edge	mm (ft/in)	3920 (12'10")	3977 (13'1")	3926 (12'11")
Tooth Tip	mm (ft/in)	3728 (12'3")	3784 (12'5")	3758 (12'4")
Reach at 45° Dump				
Edge	mm (ft/in)	2067 (6'9")	2011 (6'7")	2040 (6'8")
Tooth Tip	mm (ft/in)	2251 (7'5")	2194 (7'2")	2198 (7'3")
Reach with level boom level bucket				
Edge	mm (ft/in)	4486 (14'9")	4406 (14'5")	4462 (14'8")
Tooth	mm (ft/in)	4752 (15'7")	4672 (15'4")	4693 (15'5")
Digging Depth	mm (in)	264 (10")	264 (10")	279 (11")
Overall Length – Bucket Level Ground (Tooth)	mm (ft/in)	12 850 (42'2")	12 770 (41'11")	12 800 (42'0")
Turning Radius – Corner SAE Carry (Tooth)	mm (ft/in)	8953 (29'4")	8931 (29'4")	8945 (29'4")
Clearance at 45° Dump and 2.13 m (7 ft 0 in) Height				
Edge	mm (ft/in)	2323 (7'7")	2323 (7'7")	2298 (7'6")
Tooth	mm (ft/in)	2130 (7'0")	2130 (7'0")	2130 (7'0")
Reach at 45° Dump and 2.13 m (7 ft 0 in) Height				
Edge	mm (ft/in)	3203 (10'6")	3169 (10'5")	3188 (10'5")
Tooth	mm (ft/in)	3387 (11'1")	3353 (11'0")	3346 (11'0")
Full Dump at Maximum Lift	degrees	–48.5	–48.5	–48.5
Tipping Load* at Operating Weight				
Straight	kg (lb)	30 071 (66,296)	30 292 (66,783)	29 202 (64,380)
Articulated 35°	kg (lb)	25 633 (56,512)	25 855 (56,999)	24 765 (54,598)
Articulated 43°	kg (lb)	23 651 (52,142)	23 873 (52,631)	22 785 (50,231)
Tipping Load** at Operating Weight				
Straight	kg (lb)	31 441 (69,316)	31 654 (69,785)	30 559 (67,371)
Articulated 43°	kg (lb)	26 230 (57,827)	26 438 (58,286)	25 339 (55,863)
Articulated 35°	kg (lb)	27 933 (61,582)	28 143 (62,045)	27 045 (59,624)
Breakout Force – SAE Rated	kg (lb)	44 873 (98,928)	46 770 (103,110)	44 969 (99,139)
Operating Weight	kg (lb)	51 172 (112,815)	51 014 (112,467)	52 121 (114,908)
Weight Distribution at SAE Carry				
Front	kg (lb)	26 736 (58,943)	26 438 (58,286)	28 473 (62,772)
Rear	kg (lb)	24 436 (53,872)	24 576 (54,181)	23 648 (52,135)

Note: Tire spec used for Tipping Load specifications includes 35/65R33 (L-4) Michelin XLDD1 tires.

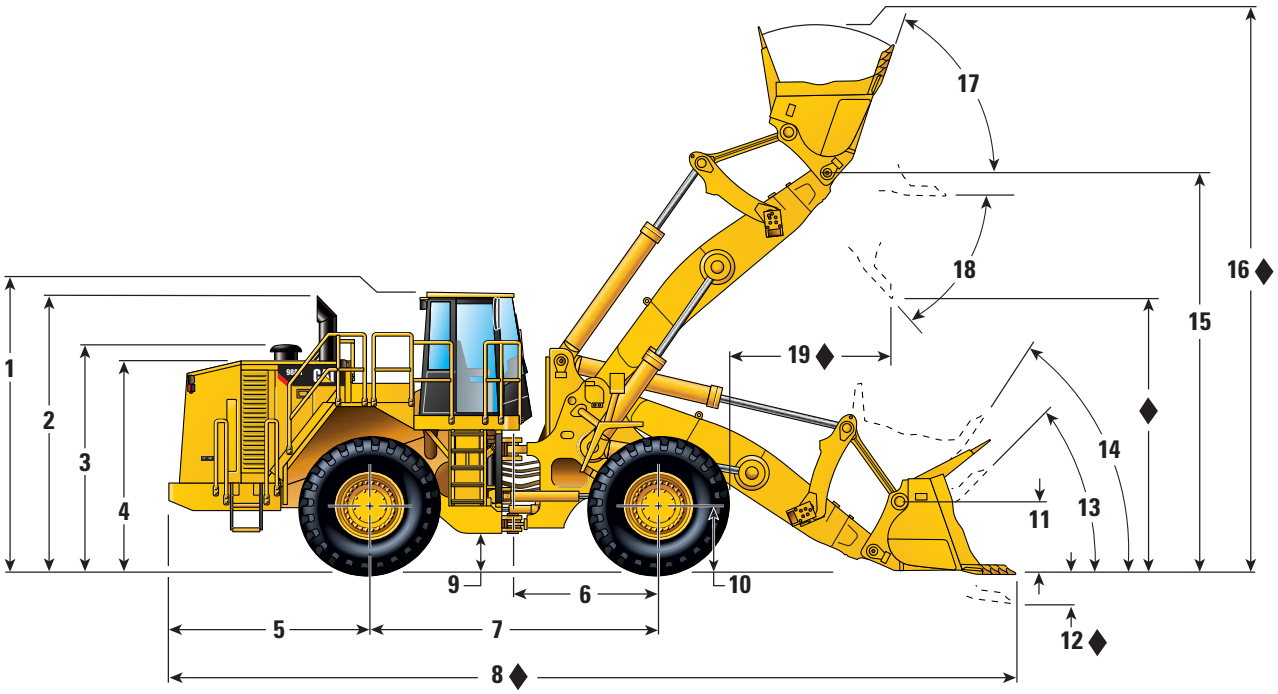
*Tipping Loads were calculated within the guidelines of ISO 14397-1:2007 to include tire squash (Tire pressure at 634 kPa [92 psi]).

**Tipping Load is calculated without tire squash.

Tire Dimensions/Specifications

	Width over Tires		Ground Clearance		Change in Vertical Dimensions		Change in Full Turn Static Tipping Load	
	mm	inches	mm	inches	mm	inches	kg	lb
35/65R33 (L-4) Michelin XLDD1	3598	140.1	526	20.7	0	0	0	0
35/65-33 42 PR (L-5) Bridgestone D-Lug	3541	139.4	565	22.2	39	1.5	1855	4,090
35/65R33 (L-4) Bridgestone V-Steel N Traction VSNT	3569	140.5	541	21.3	15	0.6	287	633
35/65R33 (L-5) Bridgestone V-Steel D-Lug VSDL	3540	139.4	541	21.3	15	0.6	911	2,008
35/65-33 42PR (L-5) Goodyear NRL D/L 5A	3487	137.3	553	21.8	27	1.1	2144	4,727
875/65R33 (L-5) RL-5K	3536	139.2	543	21.4	17	0.7	1036	2,284
35/65R33 (L-5) Michelin XLDD2	3549	139.7	536	21.1	10	0.4	242	534

Dimensions



4.25 Meter Linkage

♦ Dimensions vary with bucket. Refer to Operation/Bucket Specifications.

1	Height to Top of Cab	4105 mm	13.47 ft
2	Height to Top of Exhaust Stacks	4089 mm	13.42 ft
3	Height to Top of Air Cleaner	3359 mm	11.02 ft
4	Height to Top of Hood	3133 mm	10.28 ft
5	Center Line of Rear Axle to Edge of Rear Bumper	3132 mm	10.28 ft
6	Center Line of Front Axle to Hitch	2275 mm	7.46 ft
7	Wheel Base Length	4550 mm	14.93 ft
8	Length with Bucket on Ground	♦	♦
9	Ground Clearance	526 mm	1.73 ft
10	Height to Center of Wheel	955 mm	3.13 ft
11	C-Pin Height**	1157 mm	3.8 ft
12	Dig Depth	264 mm 232 mm*	10 in 9 in*
13	Rack Back Angle at Ground	47.8° 45.7°*	
14	Rack Back Angle at Carry	58.7° 54.5°*	
15	B-Pin Height	5830 mm 5417 mm*	19.13 ft 17.77 ft*
16	Overall Height with Bucket Raised	♦ ♦*	♦ ♦*
17	Rack Back Angle at Maximum Lift	73°	
18	Dump Angle at Maximum Lift	48.5° 51.4°*	
19	Reach	♦	♦

*3.88 Meter Linkage

**Same for both 3.88 and 4.25 Meter Linkage

988H Standard Equipment

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

POWER TRAIN

Brakes, full hydraulic, enclosed, wet multiple disc service
Case drain filters
Demand fan
Engine, Cat® C18 with ACERT® Technology
ATTAC and ADEM™ A4 controller
Fuel priming pump (electric)
Guard, (3 piece) transmission
Parking brake
Precleaner, engine air intake
Radiator, Next Generation Modular (NGMR)
Separated cooling system
Starting aid (ether), automatic
Throttle lock
Torque converter, impeller clutch with Rimpull Control System (switch and dial in cab)
Transmission, planetary, auto-shift with 4F/3R speed range control

ELECTRICAL

Alarm, back-up
Alternator (95-amp)
Batteries, maintenance-free (4–950 CCA)
Deutsch terminal connectors
Electrical system (24-volt)
Lighting system, halogen (front and rear) lighting, access stairway
Starter, electric (heavy duty)
Starting receptacle for emergency start

OPERATOR ENVIRONMENT

Air conditioner
Cab, sound-suppressed pressurized, internal four-post Rollover Protective Structure (ROPS/FOPS)
Radio ready for (entertainment) includes antenna, speakers and converter (12-volt, 10-15 amp)
12-volt power port for mobile phone or laptop connection
Cigar lighter (12-volt) and ashtray
Coat hook
Electro-hydraulic tilt and lift controls (floor-mounted)
Heater and defroster
Horn, electric
Laminated glass
Light, (dome) cab
Lunchbox and beverage holders
Monitoring system (EMS-III)
Action alert system, three category
Instrumentation, gauges
Engine coolant temperature
Fuel level
Hydraulic oil temperature
Speedometer/tachometer
Transmission oil temperature
Instrumentation, warning indicators:
Axle/brake oil temperature (front/rear)
Brake oil pressure
Electrical system, low voltage
Engine intake/combustion air temperature
Engine oil pressure
Engine overspeed
Fuel pressure
Hydraulic oil filter status
Parking brake status
Transmission filter status
Mirrors, rearview (externally-mounted)
Seat, Cat Comfort (cloth) air suspension
Seat belt, retractable, 76 mm (3 in) wide
STIC control system with steering lock
Tilt and lift control system lock
Tinted glass
Transmission gear (indicator)
Wet-arm wipers/washers (front and rear)
Intermittent wipers (front and rear)

TIRES, RIMS AND WHEELS

A tire must be selected from the Mandatory Attachment section. Base machine price includes a tire allowance.

FLUIDS

Antifreeze, premixed 50% concentration of Extended Life Coolant with freeze protection to –34° C (–29° F)

OTHER STANDARD EQUIPMENT

Engine idle shutdown
Automatic bucket tilt/lift kickouts, electronically adjustable from cab
Counterweight
Doors, service access (locking)
Emergency platform egress
Engine, crankcase, 500-hour interval with CI4 oil
Extended roof
Fuel Management System
Ground level fuel fill
Grouped electronic clutch pressure control and remote-mounted pressure taps
Auto idle kickdown
Hitch, drawbar with pin
Hydraulic oil cooler
Lower cab cover
Muffler (under hood)
Oil sampling valves
Product Link
Stairway, left and right rear access
Steering, load-sensing
Tilt regeneration
Toe kicks
Vandalism protection caplocks
Venturi stack

988H Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

AutoLube
Axle oil coolers
Block Handler configuration (Custom)
Buckets
Bulk Loader configuration (Custom)
Directional lights
Engine brake
Extended Life Coolant –50° C (–58° F)
Forestry configuration (Custom)
Fuel, fast fill
Fuel, fast fill and heater
Guards
Crankcase
Steering cylinders
Heater, engine coolant, 120-volt
Heater, engine coolant, 220-volt
High ambient cooling
Hydraulic, three-valve
Lights, HID
Linkage, 4.25 meter
Lock-up clutch
Mid-ambient cooling
No-SPIN differential, rear only
Oil change, high-speed
Payload Control System (PCS)
Product Link
Rear chain clearance
Ride Control
Roading fenders, front and rear
Roof, extended
Secondary steering
Sound suppression, exterior
Steel Mill configuration (Custom)
Tires

988H Wheel Loader

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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