

# 988K

## Wheel Loader Steel Mill Arrangement



### Engine

Engine Model	Cat® C18 ACERT™	
Emissions	U.S. EPA Tier 4 Final/EU Stage IV, Tier 2 Equivalent	
Gross (ISO 14396)	432 kW	580 hp
Net Power – SAE J1349	403 kW	541 hp

### Buckets

Bucket Capacities	5.4-6.3 m <sup>3</sup>	7.0-8.3 yd <sup>3</sup>
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### Operating Specifications

Rated Payload	11.3 tonnes	12.5 tons
Operating Weight	51 062 kg	112,574 lb

# Lower your cost per ton with industry leading efficiency.

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**Cat Large Wheel Loaders are designed with durability built in, ensuring maximum availability through multiple life cycles. With optimized performance and simplified serviceability, our machines allow you to move more material efficiently and safely at a lower cost per ton.**

**Introduced in 1963, the 988 has been the industry leader for 50 years. Focused on helping our customers succeed, we have continued to build upon each new series. The 988K continues our legacy of reliability, performance, safety, operator comfort, serviceability, and efficiency.**

# Efficiency

Delivering fuel efficiency you demand through integrated machine systems.



## Economy Mode

Enabling maximum productivity and efficiency, all day every day.



The 988K systems work hard to save you fuel through advanced technologies. Utilizing On Demand Throttle, operators maintain normal operation with the left pedal and implements while the 988K manages the engine speed.

- Provides similar control and feel to our traditional throttle lock feature.
- Efficiency of manual throttle and the ergonomics of throttle lock.
- Reduced fuel consumption by up to 20% compared to the 988H.

## Cat C18 ACERT Engine

The Cat C18 ACERT engine is built and tested to meet your most demanding applications while meeting U.S. EPA Tier 4 Final/ EU Stage IV, Tier 2 Equivalent emission standards.

- Fully integrated electronic engine controls works in concert with the entire machine to make your fuel go farther.
- Use less fuel idling with Engine Idle Shutdown.
- Maximized durability with Delayed Engine Shutdown.



## Cat Planetary Powershift Transmission

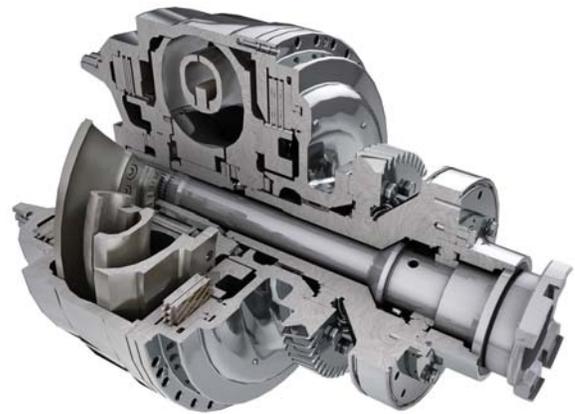
Featuring all new Advanced Productivity Electronic Control Shifting (APECS) transmission controls provides greater momentum on grades and fuel savings by carrying that momentum through the shift points.



## Impeller Clutch Torque Converter (ICTC)

Enable your operators to maximize efficiency by varying machine rimpull while putting more horsepower to hydraulics.

- Reduced tire wear.
- Enables full throttle shifts for faster cycle times.
- Provides smooth approach to the dump target for less spillage and faster cycle times.



## Cat Torque Converter with Lock-up Clutch

- Eliminates TC losses while lowering system heat.
- Improves travel speeds.
- Reduces cycle times in load and carry operations.



# Structures

Best built for the toughest conditions.



## Lift Arms

- Excellent visibility to the bucket edges and work area through a Z-bar design.
- High load stresses are absorbed by the solid steel lift arms.
- Enhance strength in key pin areas through the use of one piece castings.
- Stress relieved lift arms increase durability and lengthen time to repair.



### **Robust Structures**

Your bottom line is improved by highly durable structures that achieve multiple life cycles and withstand the toughest loading conditions.

- Full box-section rear frame resists torsional shock and twisting forces.
- Heavy-duty steering cylinder mounts efficiently transmit steering loads into the frame.
- Axle mounting has been optimized for increased structural integrity.
- Lower hitch pin, frame plate, and bearing size have been increased for longer life.



### **Front Linkage**

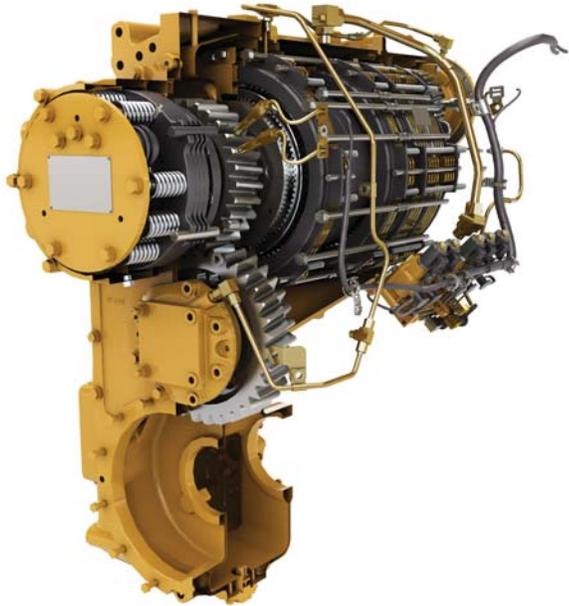
To ensure long life and reliability, the linkage pin joints feature a greased pin design with an auto lube system attachment available from the factory.



### **Steering and Transmission Integrated Control System (STIC™)**

Experience maximum responsiveness and control with STIC that combines directional selection, gear selection and steering into a single lever.

- Simple side-to-side motion turns machine right or left, minimizing operator movements.
- Easy to operate finger controlled gear selection.
- Smoother, faster cycles and help reduce operator fatigue through the use of low effort integrated controls.



### **Cat Planetary Powershift Transmission**

Building your success begins with a best-in-class transmission designed specifically for mining applications.

- Consistent, smooth shifting and efficiency through integrated electronic controls that utilize Advanced Productivity Electronic Control Strategy (APECS).
- Long life and reliability through heat treat gear and metallurgy.
- Four forward and three reverse speeds to match your application.

### **Cat C18 ACERT Engine**

Durability and efficiency at the heart of your 988K comes from the Cat C18 ACERT Engine. Optimum performance is built in through the use of a 6 cylinder, four-stroke design.

- Optimized performance and quick engine response with an electronic control module.
- Reliable efficiency with complete control over injection timing, duration and pressure with Mechanically Actuated Electronic Unit Injection (MEUI™).
- Extended engine life and improved fuel efficiency with reduced rated speed.
- Designed to meet U.S. EPA Tier 4 Final/EU Stage IV, Tier 2 Equivalent emission standards.



# Power Train

Move material more efficiently with improved power and control.



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

Lower your cost per ton utilizing advanced ICTC and RCS for modulated rimpull.

- Reduce tire slippage and wear by modulating rimpull from 100 to 25 percent while depressing left pedal. After 25 percent rimpull is achieved the left pedal applies the brake.
- Reduce the potential for wheel slippage without reducing hydraulic efficiency with RCS.
- Improve fuel efficiency in certain applications with our lock-up clutch torque converter providing direct drive.

# Hydraulics

Productivity enabling you to move more and make more.



## Positive Flow Control Hydraulics

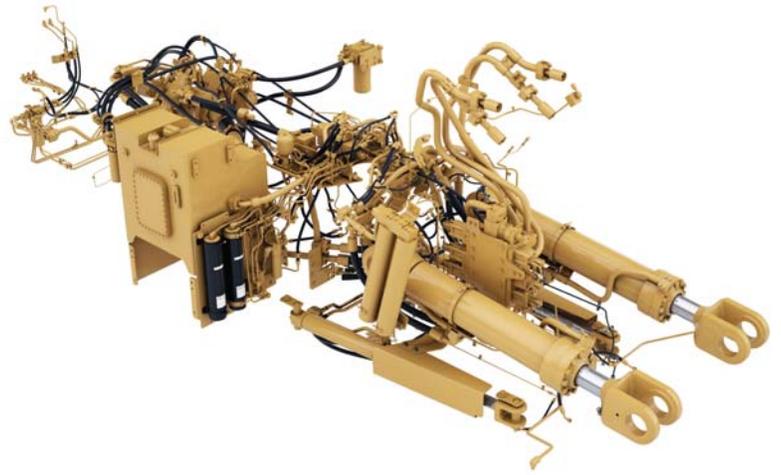
Increase efficiency through our Positive Flow Control (PFC) Hydraulic System. PFC has concurrent pump and valve control. By optimizing pump control, hydraulic oil flow is proportionate to implement lever movement.

- Fast, productive cycles are enabled by the fully variable implement pump.
- Increase bucket feel and control through increased hydraulic response.
- Consistent performance and efficiency with lower system heat.
- Full hydraulic flow down to 1,400 engine rpm enabled by flow sharing technology.

## Electro Hydraulic Controls

Operators increase productivity with our responsive implements feature.

- Operate comfortably through electronically controlled hydraulic cylinder stops.
- Handle easy-to-use soft detent controls.
- Conveniently set automatic implement kickouts from inside the cab.



## Steering System

Confident loader operation starts with precise machine control enabled by the 988K's load sensing hydraulic steering system.

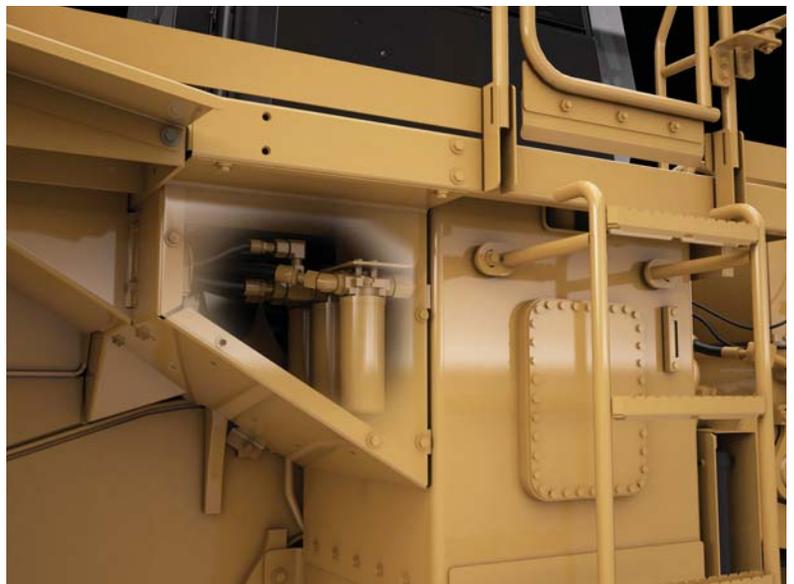
- Increase efficiency with our variable displacement piston pumps.
- Achieve precise positioning for easy loading in tight areas with 43 degrees of steering articulation.
- Enhance operator comfort with integrated steering and transmission control functions.



## Filtration System

Benefit from extended performance and reliability of your hydraulic system with our advanced filtration system.

- Case drain screens.
- Hydraulic oil cooler return filter.
- Pilot filter.
- Return screens inside hydraulic tank.
- Axle oil cooler screens if equipped.





**Your operators can work more efficiently and stay comfortable with our customer-inspired cab features.**

### Entry and Exit

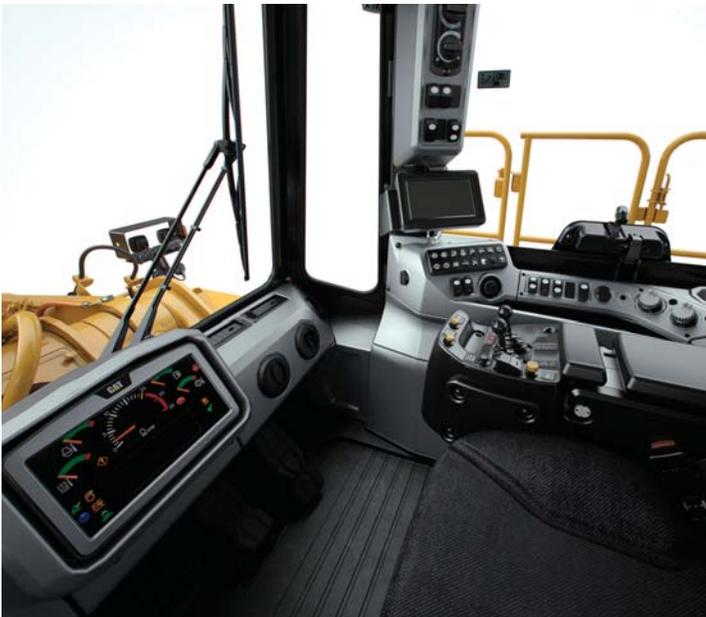
Enter and exit the cab easily and safely with these newly designed, ergonomic features.

- Fold up STIC steer/armrest.
- Reduced access stairway angles.
- Standard stairway lighting.

### Cat Comfort Series III Seat

Enhance comfort and help reduce operator fatigue with Cat Comfort Series III seat.

- 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.
- 76 mm (3 in) wide retractable seat belt.



### Control Panel

Ergonomic placement of switches and Information display keep your operators comfortable all day every day.

- Large backlit membrane switches feature LED activation indicators.
- Switches feature ISO symbols for quick function identification.
- Two position rocker switch activates the electro hydraulic park brake.

### Environment

Your operator's productivity is enhanced with our clean, comfortable cab environment.

- Experience reduced vibrations from isolation cab mounts and seat air suspension.
- Maintain desired cab temperature with automatic temperature controls.
- Pressurized cab with filtered air.
- Sound level reduced to a quiet 71 dB(A).
- Convenient floor storage tray/lunch box.



# Operator Station

Best-in-class operator comfort and ergonomics.





# Technology Solutions

Greater productivity through  
Integrated Electronic Systems.

**The 988K electronic systems have been completely integrated to function as one machine. This integration creates a smart machine and more informed operator, maximizing the productivity of both.**

## **Cat Product Link™**

Cat Product link allows remote monitoring of equipment to improve overall fleet management effectiveness. Events and diagnostic codes, as well as hours, fuel, idle time and other information are transmitted to a secure web based application, VisionLink®. VisionLink includes powerful tools to convey information to users and dealers, including mapping, working and idle time, fuel level and more.

## **VIMS™ 3G**

We have worked hard to help our customers and operators perform at their best through our Vital Information Management System (VIMS 3G).

- Easy-to-view graphical information display features a large touch screen interface.
- Intuitive operation and easy navigation with our enhanced user interface.
- Decrease service time by keeping operators informed about machine system malfunction or operation.

## **Payload Control System**

Increase your efficiency with our Payload Control System 3.0.

- Quick payload measurement with on-the-go weighing.
- Comprehensive record accuracy of machine performance.
- Optional printer available for cab.

## **Cycle Timer**

Impact your bottom line through improved machine performance with Cycle Timer. Each loading segment time can be analyzed to help you achieve more efficient operation.

### **Features:**

- Production Summary
- Machine Utilization
- Productive Cycle Time
- Loader Payload Summary
- Fuel Usage Summary

# Serviceability

Enabling high uptime by reducing your service time.

**We can help you succeed by ensuring your 988K has design features to reduce your downtime.**

- Safe and convenient service with ground level or platform access and grouped service points.
- Swing-out doors on both sides of the engine compartment provide easy access to important daily service checks.
- Ecology drains for ease of service and prevention of spilling potential environmental contaminants.
- Reduce downtime with VIMS system notifications so your operators and technicians can resolve any problems before failure.
- Ground level access to transmission control valves.



## Customer Support

Your Cat dealers know how to keep your machines productive.



### Legendary Cat Dealer Support

A valued partner, your Cat dealer is available whenever you need them.

- Preventive maintenance programs and guaranteed maintenance contracts.
- Best-in-class parts availability.
- Improve your efficiency with operator training.
- Genuine Cat Remanufactured parts.

# Safety

Making your safety our priority.



**We are continuously improving our products in an effort to provide a safe work environment for the operator and those who work on your job site.**

## **Machine Access**

- Left and right hand stairs with 45 degree angle enhance safety for operators getting on and off the 988K.
- Continuous walkway with non-skid surfaces are designed into the service areas.
- Maintain three points of contact at all times through ground level or platform accessible service areas.



## Visibility

- Optional heated mirrors ensure enhanced visibility for safe operation.
- Standard Cat Vision or optional Cat Detect with radar increase operator awareness around the machine.
- Optional HID or LED lights provide excellent workspace visibility.
- Optional cab mounted LED warning beacons.

## Operator Environment

- Reduced vibrations to the operator with isolated cab mounts and seat mounted implement and steering controls.
- Low interior sound levels.
- Pressurized cab with filtered air.
- Standard 76 mm (3 in) seat belts on the operator seat.



### Operator Station and Machine Access

A comfortable working environment ready for your attachments.

- Cab glass mounted in rubber seals for easy replacement.
- Metal backed side mirrors to hold up to high temperatures.
- Steel cab roof and floor for protection on the top and bottom.
- Reinforced platform ready for heavy fire suppression tanks.
- Damage resistant solid steel rear access steps.



### Cooling

Keep the machine clean and cool in a hot environment.

- Swing open radiator for easy cleaning.
- Six fins per inch radiator to keep material from building up.
- Auto-reversing fan to help keep cooling efficiency high.
- Easy access to cooling cores through hinged side doors with perforated screens.

### Machine Protection

Steel mills can be a harsh environment. Extra guarding for critical machine functions keep your operation running.

- Exposed wiring and hoses are covered with heat resistant wrapping.
- Steel guard to protect the tilt cylinder rod from falling debris.
- Electro hydraulic parking brake override system.
- Transmission override system for redundancy.
- Sealed cover for Diesel Exhaust Fluid fill (Tier 4).

Added protection even where you can't see it.

- Double thickness fuel tank walls.
- Silicone axle seals for extreme temperature operation.
- Machine electronic control modules located in the cab safe from heat and dust.
- Reduced rear axle oscillation for tire chain compatibility.
- Flame resistant EcoSafe hydraulic fluid available as an option.



# Steel Mill Features

Keep running in the toughest environment.



# Buckets and Ground Engaging Tools

Protect your investment.



## Performance Series Buckets

Performance Series Buckets feature an optimized profile maximizing material retention and minimizing dig time, translating into significant productivity and fuel efficiency improvements. All 988K buckets are manufactured with the Performance Series design.

## Serrated Edge Slag Bucket

Serrated spade edge bucket with abrasion resistant material. Excellent penetration combined with weld-on self sharpening serrated segments.

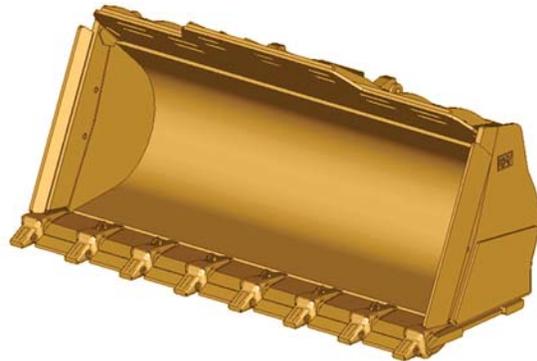
## Straight Edge Slag Bucket

Straight edge bucket with J600 tooth adapters and replaceable weld-on segments.

## Slag Buckets

Extra material and robust design for digging and handling slag.

- Thicker shell and base edge.
- Full width rear edge for extra strength.



Enhance the productivity of your loader and protect your investment in buckets with our Ground Engaging Tools (GET). Your knowledgeable Cat dealer will work with you to understand your application and needs for the GET that is best for you.





# Operating Costs

## Save Time and Money by Working Smart.

Data from customer machines show Cat wheel loaders are among the most fuel efficient machines in the industry.

Several features contribute to this excellent fuel efficiency:

- **Performance Series Buckets** – Deliver faster fill times and better material retention, ultimately reducing cycle times while improving productivity and fuel efficiency.
- **Positive Flow Control Hydraulics** – Provides only the hydraulic flow required by the implement and steering systems for improved fuel efficiency and greater rimpull.
- **ACERT Engine** – Advanced engine controls maximizes power and efficiency.
- **Economy Mode** – Featuring On Demand Throttle, Economy Mode optimizes power for maximum fuel savings with minimal impact on production.
- **Engine Idle Shutdown** – Automatic engine and electrical system shutdown conserves fuel.
- **Lock up Torque Converter** – Transfers more power to the ground and optimizes fuel efficiency in all applications.
- **Advanced Productivity Electronic Control Strategy (APECS)** – All new APECS transmission controls provides greater momentum on grades and fuel savings by carrying that momentum through the shift points.

Machine configuration, operator technique, and job site layout can impact fuel consumption.

- **Machine Configuration** – Select the correct work tool and tire type based on machine application. Ensure proper inflation pressures. Utilize the Economy Mode setting for maximum efficiency.
- **Job Site Layout** – Spot loading targets in the right position. Avoid traveling more than 1.5 tire revolutions during truck loading cycles. Reduce transport distance for load and carry cycles by optimizing job site layout.
- **Loading Bucket** – Load in first gear. Raise and tilt bucket quickly and do not use a “pumping” motion. Avoid lift lever detent and use impeller clutch.
- **Loading Truck or Hopper** – Do not raise the work tool any higher than necessary. Keep engine rpm low and unload in controlled manner.
- **Idle** – Set the parking brake to engage Engine Idle Management System.

# 988K Wheel Loader Specifications

## Engine

Engine Model	Cat C18 ACERT	
Emissions	U.S. EPA Tier 4 Final/ EU Stage IV, Tier 2 Equivalent	
Rated Speed	1,700 rpm	
Peak Power Speed	1,500 rpm	
Gross – ISO 14396	432 kW	580 hp
Gross – SAE J1995	439 kW	588 hp
Net Power – SAE J1349	403 kW	541 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in <sup>3</sup>
Peak Torque @ 1,200 rpm	2852 N·m	2,104 lb-ft
Torque Rise	58%	

## Operating Specifications

Operating Weight	51 062 kg	112,574 lb
Rated Payload – Standard	11.3 tonnes	12.5 tons
Rated Payload – High Lift	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 – Standard	770-772	
Cat Truck Match – High Lift	773-775	

## Transmission

Transmission Type	Cat planetary power shift	
Forward 1	6.5 km/h	4.0 mph
Forward 2	11.6 km/h	7.2 mph
Forward 3	20.4 km/h	12.7 mph
Forward 4	34.7 km/h	21.6 mph
Reverse 1	7.5 km/h	4.7 mph
Reverse 2	13.3 km/h	8.3 mph
Reverse 3	23.2 km/h	14.4 mph
Direct Drive Forward 1	Lock-up disabled	
Direct Drive Forward 2	12.5 km/h	7.8 mph
Direct Drive Forward 3	22.3 km/h	13.9 mph
Direct Drive Forward 4	39.3 km/h	24.4 mph
Direct Drive Reverse 1	8.0 km/h	5.0 mph
Direct Drive Reverse 2	14.3 km/h	8.9 mph
Direct Drive Reverse 3	25.5 km/h	15.8 mph

- Travel speeds based on 35/65-R33 tire.

## Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	EH- Positive Flow Control, Flow Sharing	
Lift/Tilt System	Variable displacement piston	
Maximum Flow at 1,400-1,860 rpm	580 L/min	153 gal/min
Relief Valve Setting – Lift/Tilt	32 800 kPa	4,757 psi
Cylinders, Double Acting: Lift, Bore and Stroke	210 mm × 1050 mm	8.3 in × 41.3 in
Cylinders, Double Acting: Tilt, Bore and Stroke	267 mm × 685 mm	10.5 in × 27.0 in
Pilot System	Variable displacement piston	
Maximum Flow	52 L/min	13.7 gal/min
Relief Valve Setting	3800 kPa	551 psi

## Hydraulic Cycle Time (1,400-1,860 rpm)

Rackback	4.5 Seconds
Raise	8.0 Seconds
Dump	2.2 Seconds
Lower Float Down	3.5 Seconds
Total Hydraulic Cycle Time (empty bucket)	18.2 Seconds

## Hydraulic System – Steering

Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Piston, variable displacement	
Maximum Flow	270 L/min	71.3 gal/min
Relief Valve Setting – Steering	30 000 kPa	4,351 psi
Total Steering Angle	80°	
Steering Cycle Time (high idle)	3.4 sec	
Steering Cycle Time (low idle)	5.6 sec	

## Service Refill Capacities

Fuel Tank	686 L	181 gal
Cooling System	120 L	31.7 gal
Crankcase	60 L	15.9 gal
Diesel Exhaust Fluid Tank (Tier 4)	33 L	8.7 gal
Transmission	120 L	31.7 gal
Differentials and Final Drives – Front	186 L	49.1 gal
Differentials and Final Drives – Rear	186 L	49.1 gal
Hydraulic System Factory Fill	475 L	125.5 gal
Hydraulic System (tank only)	240 L	63.4 gal

- All non-road Tier 4 Final/Stage IV, and Japan (MLIT) Tier 4 diesel engines are required to use:
  - Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less. Biodiesel blends up to B20 are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD and when the biodiesel feedstock meets ASTM D7467 specifications.
  - Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.
  - Diesel Exhaust Fluid which meets ISO 22241-1 is required.

## Axles

Front	Fixed
Rear	Trunnion
Oscillation Angle	±6°

## Brakes

Brakes	SAE J1473 OCT90, ISO 3450:1992
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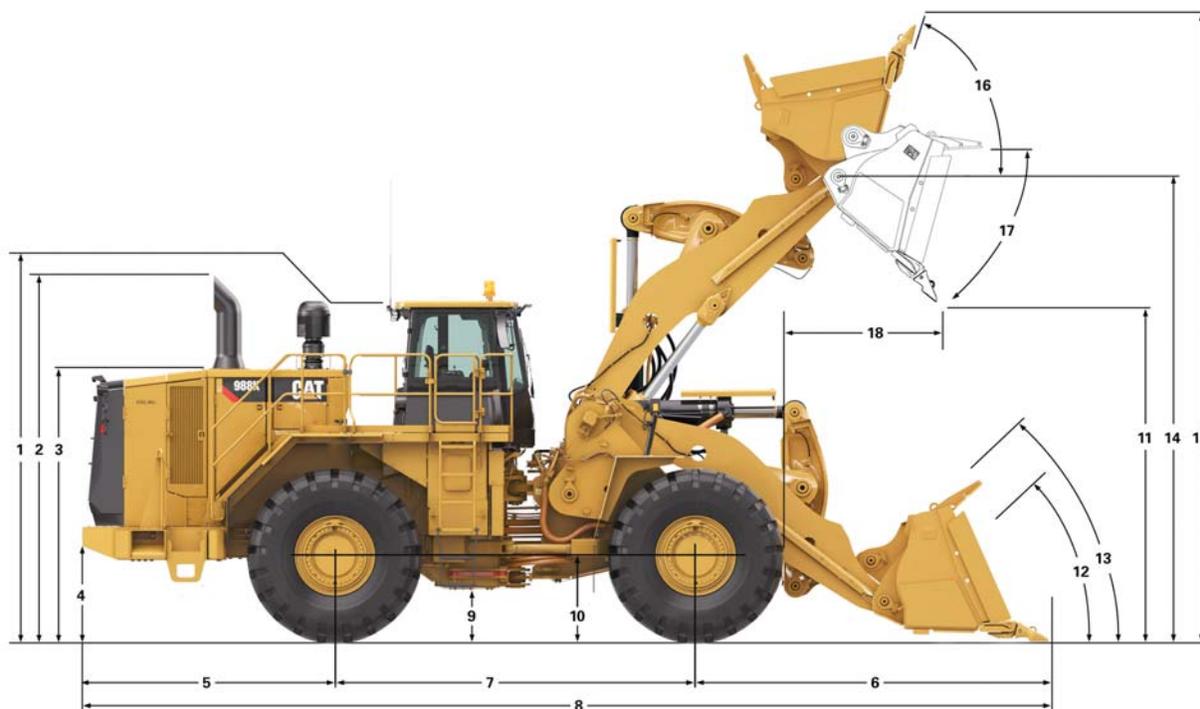
## Sound Performance

	Standard	Suppression
Operator Sound Level (ISO 6396)	71 dB(A)	70 dB(A)
Machine Sound Level (ISO 6395)	111 dB(A)	109 dB(A)

# 988K Wheel Loader Specifications

## Dimensions

All dimensions are approximate.



	Standard Lift*		High Lift*	
<b>1</b> Ground to Top of ROPS	4187 mm	13.7 ft	4187 mm	13.7 ft
<b>2</b> Ground to Top of Exhaust Stack	4214 mm	13.8 ft	4214 mm	13.8 ft
<b>3</b> Ground to Top of Hood	3334 mm	10.9 ft	3334 mm	10.9 ft
<b>4</b> Ground to Bumper Clearance	933 mm	3.1 ft	933 mm	3.1 ft
<b>5</b> Rear Axle Center Line to Bumper	3187 mm	10.5 ft	3187 mm	10.5 ft
<b>6</b> Front Axle Center Line to Bucket Tip	4150 mm	13.6 ft	4556 mm	14.9 ft
<b>7</b> Wheelbase	4550 mm	14.9 ft	4550 mm	14.9 ft
<b>8</b> Maximum Overall Length	11 887 mm	39.0 ft	12 293 mm	40.3 ft
<b>9</b> Ground to Lower Hitch Clearance	568 mm	1.9 ft	568 mm	1.9 ft
<b>10</b> Ground to Center of Front Axle	978 mm	3.2 ft	978 mm	3.2 ft
<b>11</b> Clearance at Maximum Lift	3695 mm	12.1 ft	4088 mm	13.4 ft
<b>12</b> Rack Back Angle at Ground Level	43.6 degrees		44.7 degrees	
<b>13</b> Rack Back Angle at Carry	51.0 degrees		52.9 degrees	
<b>14</b> B-Pin Height at Maximum Lift	5479 mm	18.0 ft	5881 mm	19.3 ft
<b>15</b> Maximum Overall Height, Bucket Raised	7384 mm	24.2 ft	7778 mm	25.5 ft
<b>16</b> Rack Angle at Maximum Lift	64.5 degrees		64.3 degrees	
<b>17</b> Dump Angle at Maximum Lift	-49.8 degrees		-50.1 degrees	
<b>18</b> Reach at Maximum Lift	1833 mm	6.0 ft	1921 mm	6.3 ft

\*Dimensions shown with 6.5 m<sup>3</sup> (8.5 yd<sup>3</sup>) serrated spade edge bucket.

# 988K Wheel Loader Specifications

## Operating Specifications – Standard Lift

		988K Standard, Tires: 35/65 R33 XLDD1, PN: 339-8790 SLR: 978 mm	
		Slag	
Bucket Type		Serrated	J600
Ground Engaging Tool		Spade	Straight
Cutting Edge Type		421-6100	435-1810
Bucket Part Number			
Struck Capacity	m <sup>3</sup>	5.0	4.2
	yd <sup>3</sup>	6.5	5.5
Heaped Capacity (Rated)	m <sup>3</sup>	6.5	5.5
	yd <sup>3</sup>	8.5	7.2
Bucket Width	mm	4032	3900
	ft	13.2	12.8
Dump Clearance at Full Lift and 45° Discharge (Bare)	mm	3758	4026
	ft	12.3	13.2
Dump Clearance at Full Lift and 45° Discharge (with Teeth)	mm	3695	3752
	ft	12.1	12.3
Reach at Full Lift and 45° Discharge (Bare)	mm	1770	1510
	ft	5.8	5.0
Reach at Full Lift and 45° Discharge (with Teeth)	mm	1833	1677
	ft	6.0	5.5
Reach with Lift Arms Horizontal and Bucket Level (with Teeth)	mm	3833	3682
	ft	12.6	12.1
Digging Depth (Segment)	mm	209	203
	in	8	8
Overall Length (Bucket Level on Ground)	mm	11 887	11 732
	ft	39.0	38.5
Overall Height with Bucket at Full Raise	mm	7384	7367
	ft	24.2	24.2
Loader Clearance Turning Radius (SAE Carry with Teeth)	mm	17 254	17 311
	ft	56.6	56.8
Full Dump Angle	deg	-50	-50
Static Tipping Load – Straight (Rigid Tire)	kg	33 275	34 018
	lb	73,205	74,840
Static Tipping Load – Straight (Tire Squash)	kg	31 263	31 998
	lb	68,778	70,395
Static Tipping Load – Full Turn (Articulated 35°) (Rigid Tire)	kg	29 474	30 183
	lb	64,843	66,402
Static Tipping Load – Full Turn (Articulated 35°) (Tire Squash)	kg	26 366	27 067
	lb	58,006	59,547
Static Tipping Load – Full Turn (Articulated 40°) (Rigid Tire)	kg	28 538	29 056
	lb	62,784	63,923
Static Tipping Load – Full Turn (Articulated 40°) (Tire Squash)	kg	25 044	25 734
	lb	55,097	56,615
Breakout Force	kN	408	508
	lbf	91,610	114,076
Operating Weight	kg	55 491	55 100
	lb	122,081	121,221
Weight Distribution at SAE Carry (Unloaded)			
Front	kg	33 281	32 622
	lb	73,219	71,768
Rear	kg	22 210	22 478
	lb	48,862	49,452
Weight Distribution at SAE Carry (Loaded)			
Front	kg	51 459	50 688
	lb	113,211	111,513
Rear	kg	15 372	15 752
	lb	33,818	34,655

Michelin XLDD1 2 Star with 6.3 bar (92 psi) pressure.

# 988K Wheel Loader Specifications

## Operating Specifications – High Lift

		988K High Lift, Tires: 35/65 R33 XLDD1, PN: 339-8790 SLR: 978 mm	
Bucket Type		Slag	
Ground Engaging Tool		Serrated	J600
Cutting Edge Type		Spade	Straight
Bucket Part Number		421-6100	435-1810
Struck Capacity	m <sup>3</sup>	5.0	4.2
	yd <sup>3</sup>	6.5	5.5
Heaped Capacity (Rated)	m <sup>3</sup>	6.5	5.5
	yd <sup>3</sup>	8.5	7.2
Bucket Width	mm	4032	3900
	ft	13.2	12.8
Dump Clearance at Full Lift and 45° Discharge (Bare)	mm	4151	4419
	ft	13.6	14.5
Dump Clearance at Full Lift and 45° Discharge (with Teeth)	mm	4088	4146
	ft	13.4	13.6
Reach at Full Lift and 45° Discharge (Bare)	mm	1858	1599
	ft	6.1	5.2
Reach at Full Lift and 45° Discharge (with Teeth)	mm	1921	1765
	ft	6.3	5.8
Reach with Lift Arms Horizontal and Bucket Level (with Teeth)	mm	4172	4021
	ft	13.7	13.2
Digging Depth (Segment)	mm	228	222
	in	9	9
Overall Length (Bucket Level on Ground)	mm	12 293	12 138
	ft	40.3	39.8
Overall Height with Bucket at Full Raise	mm	7778	7761
	ft	25.5	25.5
Loader Clearance Turning Radius (SAE Carry with Teeth)	mm	17 603	17 672
	ft	57.8	58.0
Full Dump Angle	deg	-50	-50
Static Tipping Load – Straight (Rigid Tire)	kg	31 072	31 742
	lb	68,359	69,831
Static Tipping Load – Straight (Tire Squash)	kg	29 312	29 980
	lb	64,487	65,956
Static Tipping Load – Full Turn (Articulated 35°) (Rigid Tire)	kg	27 371	28 012
	lb	60,216	61,626
Static Tipping Load – Full Turn (Articulated 35°) (Tire Squash)	kg	24 527	25 169
	lb	53,959	55,371
Static Tipping Load – Full Turn (Articulated 40°) (Rigid Tire)	kg	26 284	26 916
	lb	57,825	59,215
Static Tipping Load – Full Turn (Articulated 40°) (Tire Squash)	kg	23 235	23 867
	lb	51,117	52,507
Breakout Force	kN	375	467
	lbf	84,168	104,855
Operating Weight	kg	56 834	56 443
	lb	125,035	124,175
Weight Distribution at SAE Carry (Unloaded)			
Front	kg	34 069	33 377
	lb	74,952	73,429
Rear	kg	22 765	23 066
	lb	50,083	50,746
Weight Distribution at SAE Carry (Loaded)			
Front	kg	53 244	52 446
	lb	117,137	115,382
Rear	kg	14 930	15 337
	lb	32,846	33,741

Michelin XLDD1 2 Star with 6.3 bar (92 psi) pressure.

## Standard Equipment

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

### ELECTRICAL

- Alarm, back-up
- Alternator, single 150 amp
- Batteries, dry
- Converter, 10/15 amp, 24V to 12V
- Lighting system (halogen, work lights, access and service platform lighting)
- Starting and charging system, 24V
- Starter emergency start receptacle
- Starter lockout
- Transmission lockout

### OPERATOR ENVIRONMENT

- Graphical Information Display, displays real time operating information, performs calibrations and customizes operator settings
- Air conditioner
- Cat Detect Vision, rear vision camera system
- 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
- Controls, lift and tilt function
- Heater, defroster
- Horn, electric
- Instrumentation, gauges
  - Coolant temperature
  - Engine hour meter
  - Hydraulic oil temperature
  - Power train oil temperature
- Light, cab, dome
- Lunchbox, beverage holders
- Mirrors, rearview (externally mounted)
- Rimpull Control System
- Seat, Cat Comfort (cloth), air suspension, six-way adjustable
- Seat belt, retractable, 76 mm (3 in) wide
- STIC Control System
- UV glass
- Transmission gear indicator
- Vital Information Management System (VIMS) with Graphical Information Display: External Data Port, Customizable Operator Profiles, Cycle Timer, Integrated Payload Control System
- Wet-Arm wipers/washers (front and rear)
  - Intermittent front and rear wipers
- Lights, directional

### POWER TRAIN

- Brakes, oil-cooled, multi-disc, service/secondary
- Case drain screens
- Crankcase guard
- Electro hydraulic parking brake
- Engine, C18 MEUI diesel, turbocharged/aftercooled
- Ground level engine shutoff
- Turbine precleaner, engine air intake
- Radiator, Next Generation Modular (NGMR)
- Starting aid, ether, automatic
- Throttle lock, electronic
- Torque converter, Impeller Clutch (ICTC) with Lock up clutch (LUC), Rimpull Control System
- Transmission, planetary powershift, 4F/3R electronic control

### OTHER

- 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, 731 L (188 gal)
- Hitch, drawbar with pin
- Hoses, Cat XT
- Hydraulic, steering and brake filtration/screening system
- Cat Clean Emission Module
- Oil sampling valves
- Premixed 50% concentration of extended life coolant with freeze protection to  $-34^{\circ}\text{C}$  ( $-29^{\circ}\text{F}$ )
- Rear access to cab and service platform
- Steering, load sensing
- Toe kicks
- Vandalism protection caplocks

# 988K Optional Equipment

## Optional Equipment

With approximate changes in operating weights. Optional equipment may vary. Consult your Cat dealer for specifics.

### POWER TRAIN

- -50° C (-58° F) antifreeze
- Engine oil change system, high speed, Wiggins
- Engine block heater 120V or 240V
- High ambient cooling – software
- Payload Control System (PCS)

### OPERATOR ENVIRONMENT

- Cab precleaner
- AM/FM/CD/MP3 radio
- Satellite Sirius radio with bluetooth
- LED warning strobe
- CB radio ready
- Window pull down visor

### MISCELLANEOUS ATTACHMENTS

- Front and rear roading fenders

## Mandatory Attachments

Select one from each group. Mandatory and optional equipment may vary. Consult your Cat dealer for specifics.

### LINKAGE

- Standard with two valves
- High Lift with two valves

- Autolube
- Manual grease pins

### ELECTRICAL

- No Product Link
- Product Link (Satellite)
- Product Link (Cellular)

### STEERING

- Standard steering
- Secondary steering

### POWER TRAIN

- Axle oil cooler
- Standard axles
- Standard fuel lines
- Heated fuel lines
- Extreme temperature axle
- Standard engine air turbine precleaner
- Dual stage precleaner
- No engine brake
- Engine brake

### LIGHTING

- LED lighting

### OPERATOR ENVIRONMENT

- No suppression arrangement
- Sound suppression

- Standard seat
- Heated seat

- Standard seat belt
- Seat belt minder

- Rubber mounted cab glass

- Fixed glass door, standard

- Standard cab air cleaner
- RESPA cab air cleaner

- Standard mirrors with metal back

- Vision Display

### HYDRAULICS

- Ride control
- No ride control

- Standard hydraulic oil
- Fire resistant (EcoSafe) hydraulic oil
- Cold weather hydraulic oil

### FUEL SYSTEM

- Conventional fuel arrangement
- Cold weather starting





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