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Engine Model Emissions Gross Power – ISO 14396 Net Power – SAE J1349 (Standard Ambient) Net Power – SAE J1349 (High Ambient) Cat® 3516E U.S. EPA Tier 1 Equivalent 1377 kW 1,847 hp 1297 kW 1,739 hp 1265 kW 1,696 hp

#### **Buckets**

Buokoto		
Bucket Capacities	19.1-24.5 m <sup>3</sup>	25-32 yd <sup>3</sup>
Operating Specifications		
Rated Payload – Standard	40.8 tonnes	45 tons
Rated Payload – High Lift	38.1 tonnes	42 tons
Operating Weight	239 142 kg	527,218 lb

# Lower your cost per ton with built-in durability.



#### **Contents**

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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 1990, the 994 has become the top customer choice in its size class for the last 25 years. Focused on helping our customers succeed, we have continued to build upon each new series' legacy of reliability, safety, operator comfort, serviceability and sustainability.

# **Structures**

Best built for the toughest conditions.





#### Lift Arms

Your key to maximum uptime and productivity is our field-proven 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.
- Cast axle pivot mounting areas better disperse stress loads for increased structural integrity.



#### **Front Linkage**

To ensure long life and reliability, the linkage pin joints feature a greased pin design and standard automatic lubrication system.





#### 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 less 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.
- Long life and reliability through heat treated gears and metallurgy.
- Three forward and three reverse speeds to match your application.

#### Cat 3516E Engine

Durability and reliability continues in the 994K with the proven 3500 Series engines. At the heart of the 994K is the new 3516E engine. Optimum performance is built in through the use of a 16-cylinder, four-stroke design.

- On-demand performance through the use of turbochargers and aftercoolers.
- High Torque Rise 39% torque rise ensures high lugging forces during digging and acceleration in high rimpull conditions.
- Extended engine life through a longer stroke and lower rpm ratings.
- Quick engine response through the use of electronic controls.





#### 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.

#### **Economy Mode**



Enabling maximum productivity and efficiency, all day every day.

The 994K 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 994K 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.

# **Hydraulics** Productivity enabling you to move more and make more.



![](_page_7_Picture_2.jpeg)

#### **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 enabled by four electronically controlled, fully variable piston pumps.
- Increased bucket feel and control.
- Consistent performance and efficiency with lower system heat.

#### **Electro Hydraulic Controls**

Increase operator productivity with these implement features.

- 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 994K's load sensing hydraulic steering system.

- Increase efficiency with our variable displacement piston pumps.
- Achieve precise positioning for easy loading in tight areas with 40 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.

- Lift/tilt case drain filters.
- Lift/tilt high pressure screens.
- Steering case drain filters.
- Steering high pressure screens.
- Hydraulic case drain filters.
- Power train filters for transmission, torque converter, and pump drives.
- Front and rear brake oil screens.

![](_page_8_Picture_19.jpeg)

![](_page_8_Picture_20.jpeg)

![](_page_8_Picture_21.jpeg)

![](_page_9_Picture_0.jpeg)

![](_page_9_Picture_1.jpeg)

![](_page_9_Picture_2.jpeg)

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.

- Two side access points.
- Fold up STIC steer/armrest.
- Reduced access stairway angles.

#### **Deluxe Operator Seat**

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

- Available heated and ventilated seat featuring leather seat bolster surfaces.
- High 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.

#### **Trainer Seat**

Safely train other operators in comfort with our standard training seat.

- 76 mm (3 in) wide, retractable seat belt.
- Fold-down design with molded drink tray and storage.

# **Operator Station**

Best-in-Class operator comfort and ergonomics.

![](_page_10_Picture_2.jpeg)

#### **Environment**

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

- Experience reduced vibrations from viscous cab mounts and seat air suspension.
- Maintain desired cab temperature with automatic temperature controls.
- Pressurized cab with pressure indicator.
- Operator sound levels at a quiet 71 dB(A).
- Available heated and ventilated seats featuring leather covered seat bolster and headrest.

![](_page_10_Picture_10.jpeg)

![](_page_10_Picture_11.jpeg)

![](_page_11_Picture_0.jpeg)

The 994K 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.

#### VIMS<sup>™</sup> 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 Advisor Display features a large screen.
- Intuitive operation and easy navigation with our enhanced user interface.
- Decrease service time by keeping operators informed about machine system malfunction or operation.

#### **Operator Profile**

Operator comfort begins with personalized machine feature settings. Through our Advisor Display, an operator can instantly recall personalized profiles.

- Store up to 10 separate operator profiles through Advisor.
- Decrease setup time between operators by recalling personalized screen layouts.

#### **Payload Control System**

Increase your efficiency with our Payload Control System 3.0.

- Quick payload weighs with on-the-go weighing.
- Comprehensive record accuracy of machine performance with up to 1,000 truck records with 25 different materials.

#### **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

![](_page_12_Picture_0.jpeg)

# P

![](_page_12_Picture_2.jpeg)

# Cat MineStar System Work more productively.

Cat MineStar System is the industry's broadest suite of integrated mine operations and mobile equipment management technologies, configurable to suite your operation's needs. Its capability sets – Fleet, Terrain, Detect, Health and Command – contain a range of technologies that let you manage everything from fleet assignment and condition monitoring to remote and autonomous control. The 994K can take advantage of many of these advanced technologies, some of which are standard out of the factory.

#### Fleet

Fleet provides comprehensive, real-time machine tracking, assignment and productivity management, giving you a comprehensive overview of all operations from anywhere in the world.

#### **Terrain for Loading**

Terrain with your 994K enables high-precision management of loading operations through the use of guidance technology. It increases 994K's productivity and provides you real-time feedback for improved efficiency.

#### Detect

Detect helps increase operator awareness, enhancing safety at your operation. It includes a range of capabilities designed to assist the operator with areas of limited visibility around fixed and mobile equipment.

#### Health

Health delivers critical event-based machine condition and operating data for your entire fleet. It includes comprehensive equipment health and asset monitoring capabilities, with a wide range of diagnostic, analytic and reporting tools.

![](_page_13_Picture_0.jpeg)

![](_page_13_Picture_1.jpeg)

#### **Powered Access System**

The Cat powered access system allows easier access to the primary stairs by improving ingress and egress to and from the rear platform.

- Safe, ergonomic access system.
- All operators have adequate space when using the wide stairway.
- Operators maintain three-point contact when using full handrails on each side.
- Raise lower platform from cab level or ground.

We are constantly 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**

- Wider stairs with 45 degree angles increase safety for operators getting on and off the 994K.
- Wide walkways with non-skid surfaces and integrated lock out/tag out points are designed into the service areas.
- Windshield cleaning platforms provide safe and convenient access for the operator.
- Maintain three points of contact at all times through ground level or platform accessible service areas.
- Emergency egress.

#### Visibility

- Standard pull-down window shade and optional heated mirrors ensure extended visibility for safe operation.
- Cat Detect with Object Detection System (rearview camera and radar) or Vision (rearview camera) option increases operator awareness around the machine.
- Standard LED lights provide excellent workspace visibility.
- Cab mounted LED warning beacons, programmable for site-specific signaling.

#### **Operator Environment**

- Low vibrations to the operator with viscous cab mounts and seat air suspension.
- Low interior sound levels.
- Operator training seat facilitates safe new operator training.
- Standard 76 mm (3 in) seat belts on the operator seat and operator training seat.
- Optional 4-point harness

![](_page_14_Picture_18.jpeg)

![](_page_14_Picture_19.jpeg)

![](_page_14_Picture_20.jpeg)

![](_page_15_Picture_0.jpeg)

# **Serviceability** Enabling high uptime by reducing your service time.

![](_page_15_Picture_2.jpeg)

# We can help you succeed by ensuring your 994K has design features to reduce your downtime.

- Longer service intervals on fluids and filters.
- 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.
- Centralized remote pressure taps.
- Reduce downtime with VIMS system notifications so your operators and technicians can resolve any problems before failure.

# **Customer Support**

Your Cat dealers know how to keep your mining 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.

![](_page_15_Picture_18.jpeg)

![](_page_16_Picture_0.jpeg)

#### **Protecting the Environment**

Environmental responsibility is designed and built into our 994K's features.

- Increased fuel efficiency to minimize your carbon footprint.
- Engine Idle Shutdown can help you save fuel by avoiding unnecessary idling.
- Reduce waste to the environment with our maintenance free or extended maintenance batteries.
- Built for multiple lives, the Cat 994 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.

# **Buckets and Ground Engaging Tools**

It's all about performance.

#### **Increase Productivity and Fuel Efficiency**

Performance Series Buckets are designed for superior performance in a variety of materials. They are engineered to dig into piles quickly and load efficiently. Fill factors are up to 115% so you can get your job done and move on to other tasks. Fast load cycles and fewer trips mean less wear and tear on your machine and keep you working.

The buckets below are part of the Performance Series line. They come in different capacities and widths to fit your loading and carrying needs.

![](_page_17_Picture_5.jpeg)

![](_page_17_Picture_6.jpeg)

# 2

![](_page_17_Picture_8.jpeg)

![](_page_17_Picture_9.jpeg)

#### 1 – Rock Buckets

This bucket style is used in high-abrasion production applications like face loading limestone and other rock, and trucking a wide range of quarry materials.

#### 2 – Heavy Duty Rock Buckets

Heavy Duty Rock Buckets are for use in applications like face loading tightly compacted pit materials or handling materials of moderate abrasion and high impact.

#### 3 – Coal Buckets

This bucket style is built for light density non-abrasive materials including coal.

#### 4 – Iron Ore Buckets

Iron Ore Buckets are for use in extremely aggressive applications like face loading iron ore. They are built for high abrasion and moderate impact and leave a smooth floor when finished.

	Bucket	Capacity	GET	Standard Lift N	Aaterial Density	High Lift Ma	terial Density
Bucket Type	m <sup>3</sup>	yd³	No. of Tips	kg/m³	lb/yd³	kg/m³	lb/yd³
Rock	19.1	25.0	9	2138	3,600	1995	3,360
	21.4	28.0	9	1909	3,215	1781	3,000
	22.9	30.0	9	1781	3,000	1663	2,800
	24.5	32.0	9	1669	2,810	1559	2,625
HD Rock	19.1	25.0	9	2090	3,520	1900	3,200
	21.4	28.0	9	1802	3,035	1675	2,820
Coal	39.8	52.0	10	1027	1,730	959	1,615
	32.1	42.0	10	1271	2,140	1188	2,000
Iron Ore	17.2	22.5	9	2286	3,850	2126	3,580

#### **Ground Engaging Tools**

Protect expensive components. Reduce your operating costs. And get the most out of your machine's performance. Choose from a variety of performance-built GET like these to meet your application requirements.

![](_page_18_Picture_4.jpeg)

#### **CapSure™ Retention Technology**

Simple installation means no hammering and therefore improved safety. It also means quicker change-outs and less downtime. The tip is easily installed with a 180 degree turn of a  $\frac{3}{4}$  inch ratchet.

# **System Match Efficiency**

Efficient loading/hauling system starts with a perfect match.

![](_page_19_Picture_2.jpeg)

Cat Truck Pass Match	785	789	793
Standard Lift	4	5	
High Lift		5	6

#### **Application Match**

The standard 994K is sized to load the 136 tonnes (150 ton) 785 in four passes. The 994K standard lift and high lift load the 177 tonnes (195 ton) 789 in five passes and the 227 tonnes (240 ton) 793 in six passes.

#### **Efficient Combination**

For full truck payloads with minimum loading time, an efficient loading/hauling system starts with a perfect match. Cat wheel loaders are matched with Cat mining trucks to maximize volume of material moved at the lowest operating cost per ton.

#### **Bucket Selection**

Selection of the right bucket depends on penetration requirements, material densities, abrasion, and the loading target. Bucket sizes are matched to truck bed capacities and material densities for optimum loading efficiency and greater productivity.

# 994K Wheel Loader Specifications

#### Engine

Engine Model	Cat 3516E	
Emissions	U.S. EPA Tier 1 Equivaler	
Rated Speed	1,600 rpm	
Gross Power – ISO 14396	1377 kW	1,847 hp
Gross Power – SAE J1995	1394 kW	1,870 hp
Net Power – SAE J1349		
Standard Ambient	1297 kW	1,739 hp
High Ambient	1265 kW	1,696 hp
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78.1 L	4,766 in <sup>3</sup>
Peak Torque @ 1,200 rpm – SAE J1995	11 591 N·m	8,549 lbf-ft
Torque Rise	39%	

• The power ratings apply when tested under the reference conditions for the specified standard.

• The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner, and muffler.

• The gross power advertised is with the fan at maximum speed.

#### **Operating Specifications**

Operating Weight	239 142 kg	527,218 lb
Rated Payload – Standard	40.8 tonnes	45 tons
Rated Payload – High Lift	38.1 tonnes	42 tons
Bucket Capacity Range	19.1-24.5 m <sup>3</sup>	25-32 yd <sup>3</sup>

#### Transmission

Transmission Type	Cat Planetar	ry Power Shift
Forward 1	7.4 km/h	4.6 mph
Forward 2	12.9 km/h	8.0 mph
Forward 3*	21.9 km/h	13.6 mph
Reverse 1	8.1 km/h	5.0 mph
Reverse 2	14.1 km/h	8.8 mph
Reverse 3*	24.0 km/h	14.9 mph
Direct Drive – Forward 1	Lock-up dis	ables
Direct Drive – Forward 2	14.0 km/h	8.7 mph
Direct Drive – Forward 3*	24.5 km/h	15.2 mph
Direct Drive – Reverse 1	Lock-up dis	ables
Direct Drive – Reverse 2	15.5 km/h	9.6 mph
Direct Drive – Reverse 3*	27.0 km/h	16.8 mph

\* Note that 3F/3R speed may be reduced in production.

• Travel speeds based on 58/85-57 tires.

#### Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	Positive Flow Control	
Lift/Tilt System	Variable Disp Piston	olacement
Maximum Flow at 1,700 rpm Engine Speed	2047 L/min	541 gal/min
Relief Valve Setting – Lift/Tilt	31 626 kPa	4,587 psi
Cylinders, Double Acting		
Lift, Bore and Stroke	370 × 1713 mm	14.6 × 67.4 in
Tilt, Bore and Stroke	310 × 1086 mm	12.2 × 42.8 in
Pilot System	Open Loop and Pressure Reducing	
Maximum Flow at 1,700 rpm Engine Speed	80 L/min	21 gal/min
Relief Valve Setting	3450 kPa	500 psi

## 994K Wheel Loader Specifications

#### **Hydraulic Cycle Time**

Rack Back	4.1 seconds
Raise	12.1 seconds
Dump	3.1 seconds
Lower Float Down	4.2 seconds
Total Hydraulic Cycle Time (empty bucket)	23.5 seconds

#### **Service Refill Capacities**

Fuel Tank (standard)	3445 L	910 gal
Fuel Tank (with 24 hr attachment)	5678 L	1,500 gal
Cooling System	520 L	137.5 gal
Engine Crankcase	273 L	72 gal
Transmission	416 L	110 gal
Differentials and Final Drives – Front	833 L	220 gal
Differentials and Final Drives – Rear	757 L	200 gal
Hydraulic Tank (implement and hydraulic fan)	1022 L	270 gal
Hydraulic Tank (steering and braking)	379 L	100 gal

#### Axles

Front	Fixed
Pront	Tixed
Rear	Irunnion
Oscillation Angle	90

#### **Brakes**

Brakes

ISO 3450:2011

#### **Sound Performance**

	Standard	Suppression
Operator Sound Level (ISO 6396)	72 dB(A)	71 dB(A)
Machine Sound Level (ISO 6395)	119 dB(A)	117 dB(A)

#### Sound Performance

- The operator sound pressure level is 72 dB(A), measured according to the test procedures and conditions specified in ISO 6396:2008 for the standard machine configuration. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- The operator sound pressure level is 71 dB(A), measured according to the test procedures and conditions specified in ISO 6396:2008 for the sound suppressed machine configurations. 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.
- The machine sound power level is 119 dB(A), measured according to the test procedures and conditions specified in ISO 6395:2008 for the standard machine configuration. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- The machine sound power level is 117 dB(A), measured according to the test procedures and conditions specified in ISO 6395:2008 for the sound suppressed machine configuration. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.

#### Hydraulic System - Steering

Steering System – Circuit	Pilot, Load Sensing			
Steering System – Pump	Piston, Variable Displacemer			
Maximum Flow @ 1,700 rpm Engine Speed	980 L/min	259 gal/min		
Relief Valve Setting – Steering	31 000 kPa	4,496 psi		
Total Steering Angle	70°			
Steering Cycle Time (low idle)	7.3 seconds			
Steering Cycle Time (high idle)	4.0 seconds			

# 994K Wheel Loader Specifications

#### Dimensions

All dimensions are approximate.

![](_page_22_Figure_3.jpeg)

		Standar	Standard Lift		Lift
1	Ground to Top of ROPS	7118.5 mm	23.4 ft	7118.5 mm	23.4 ft
2	Ground to Top of Exhaust Stacks	7067 mm	23.2 ft	7067 mm	23.2 ft
3	Ground to Top of Hood	5682 mm	18.6 ft	5682 mm	18.6 ft
4	Ground to Bumper Clearance	1355 mm	4.4 ft	1355 mm	4.4 ft
5	Rear Axle Center Line to Bumper	6205 mm	20.4 ft	6205 mm	20.4 ft
6	Front Axle Center Line to Bucket Tip	6503 mm	21.3 ft	7097 mm	23.3 ft
7	Wheel Base	6800 mm	22.3 ft	6800 mm	22.3 ft
8	Maximum Overall Length	17 860 mm	58.6 ft	18 454 mm	60.5 ft
9	Ground to Lower Hitch Clearance	898 mm	2.9 ft	898 mm	2.9 ft
10	Ground to Center of Axles	1820 mm	6.0 ft	1820 mm	6.0 ft
11	Clearance at Maximum Lift	6170 mm	20.2 ft	7098 mm	23.3 ft
12	Rack Back Angle at Ground Level	37.4 de	grees	42.3 de	grees
13	Rack Back Angle at Carry	47.9 de	grees	53.7 de	grees
14	B-Pin Height at Maximum Lift	8790 mm	28.8 ft	9647 mm	31.7 ft
15	Maximum Overall Height, Bucket Raised	11 771 mm	38.6 ft	12 545 mm	41.2 ft
16	Rack Angle at Maximum Lift	59.5 de	grees	59.4 de	grees
17	Dump Angle at Maximum Lift	-50 de	grees	-50 de	grees
18	Reach at Maximum Lift	2824 mm	9.3 ft	2691 mm	8.8 ft

#### Bucket Capacity/Material Density Selection Guide

Standard Lift					
	Materia		Bucket	Volume	
kg/m³	lb/yd³	tonnes/m <sup>3</sup>	tons/yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>
1665-1832	2,813-3,094	1.67-1.83	1.41-1.55	24.5	32
1782-1960	3,000-3,300	1.78-1.96	1.50-1.65	22.9	30
1907-2097	3,214-3,536	1.91-2.10	1.61-1.77	21.4	28
2136-2350	3,600-3,960	2.14-2.35	1.80-1.98	19.1	25

High Lift					
	Materia	Bucket	Volume		
kg/m³	lb/yd <sup>3</sup>	tonnes/m <sup>3</sup>	tons/yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>
1555-1711	2,625-2,888	1.56-1.71	1.31-1.44	24.5	32
1664-1830	2,800-3,080	1.66-1.83	1.40-1.54	22.9	30
1780-1958	3,000-3,300	1.78-1.96	1.50-1.65	21.4	28
1995-2194	3,360-3,696	1.99-2.19	1.68-1.85	19.1	25

#### **Operating Specifications – Standard Lift**

For machines equipped with 58/85-57 tires (SLR: 1820 mm/6 ft) – see additional tables for other tire sizes.

Bucket Type		Rock				
Ground Engaging Tools			Teeth &	Segment		
Cutting Edge Type		Spade				
Bucket Part No. (Group Level)		389-4420	389-4430	389-4440	389-4450	
Bucket Load at Rated Capacity	kg	40 823	40 823	40 823	40 823	
	lb	90,000	90,000	90,000	90,000	
Rated Capacity	m <sup>3</sup>	19.1	21.4	22.9	24.5	
	yd <sup>3</sup>	25	28	30	32	
Struck Capacity – ISO	m <sup>3</sup>	15	18	19	20	
	yd <sup>3</sup>	19.6	23.5	24.9	26.2	
Heaped Capacity – ISO	m <sup>3</sup>	19	21	23	24	
	yd <sup>3</sup>	24.9	27.5	30.0	31.4	
Bucket Width – Overall	mm	6220	6220	6220	6220	
	ft	20.4	20.4	20.4	20.4	
Clearance at 45° Dump (Tooth Tip)	mm	6351	6241	6170	6103	
	ft	20.8	20.5	20.2	20.0	
Reach at 45° Dump (Tooth Tip)	mm	2644	2753	2824	2891	
	ft	8.7	9.0	9.3	9.5	
Bucket Pin at Maximum Lift	mm	8790	8790	8790	8790	
	ft	28.8	28.8	28.8	28.8	
Horizontal Arm and Level Bucket Reach	mm	5582	5737	5837	5932	
	ft	18.3	18.8	19.1	19.5	
Digging Depth (Segment)	mm	232	232	232	232	
	ft	0.8	0.8	0.8	0.8	
Overall Length – Bucket Level Ground	mm	17 605	17 760	17 860	17 955	
	ft	57.8	58.3	58.6	58.9	
Front Axle to Bucket Tip Ground	mm	6248	6403	6503	6598	
	ft	20.5	21.0	21.3	21.6	
Overall Height	mm	11 541	11 688	11 771	11 874	
	ft	37.9	38.3	38.6	39.0	
Turning Radius – Corner SAE Carry	mm	13 725	13 769	13 798	13 826	
	ft	45.0	45.2	45.3	45.4	
Reach at 45° Dump and 2.13 m (7 ft) Height (with Teeth)	mm	4352	4458	4525	4588	
	ft	14.3	14.6	14.8	15.1	
Rack Back Angle at SAE Carry	degree	47.7	47.7	47.7	47.7	
Full Dump at Maximum Lift	degree	-50.0	-50.0	-50.0	-50.0	

(chart continued on next page)

#### **Operating Specifications – Standard Lift** (continued)

For machines equipped with 58/85-57 tires (SLR: 1820 mm/6 ft) – see additional tables for other tire sizes.

Bucket Type			Ro	ock		
Ground Engaging Tools		Teeth & Segment				
Cutting Edge Type		Spade				
Bucket Part No. (Group Level)		389-4420	389-4430	389-4440	389-4450	
Bucket Load at Rated Capacity	kg	40 823	40 823	40 823	40 823	
	lb	90,000	90,000	90,000	90,000	
Rated Capacity	m <sup>3</sup>	19.1	21.4	22.9	24.5	
	yd <sup>3</sup>	25	28	30	32	
Struck Capacity – ISO	m <sup>3</sup>	15	18	19	20	
	yd <sup>3</sup>	19.6	23.5	24.9	26.2	
Heaped Capacity – ISO	m <sup>3</sup>	19	21	23	24	
	yd <sup>3</sup>	24.9	27.5	30.0	31.4	
Tipping Load at Operating Weight – Straight	kg	159 089	157 436	156 333	155 345	
	lb	350,732	347,087	344,656	342,477	
Tipping Load at Operating Weight – Straight*	kg	150 044	148 332	147 192	146 169	
	lb	302,436	298,953	296,628	294,551	
Tipping Load at Operating Weight – Articulated 40°	kg	137 183	135 603	134 548	133 606	
	lb	296,828	286,923	280,750	275,111	
Tipping Load at Operating Weight – Articulated 40°*	kg	122 851	121 184	120 075	119 081	
	lb	315,605	294,505	282,094	271,102	
Tipping Load at Operating Weight – Bucket Level Ground	kg	134 639	130 146	127 346	124 788	
	lb	235,996	229,182	224,882	220,948	
Tipping Load at Operating Weight – Bucket Level Ground*	kg	125 594	121 552	119 023	116 711	
	lb	232,273	232,273	232,273	232,273	
Breakout Force – SAE Rated	kN	1403.9	1310.0	1254.8	1205.9	
	lbf	523,809	525,865	527,217	528,409	
Lift Capacity – Bucket Level Ground	kN	1049.8	1019.5	1000.3	982.8	
	lbf	273,815	277,531	280,003	282,188	
Single Stall Rimpull	kN	1033.2	1033.2	1033.2	1033.2	
	lbf	249,993	248,334	247,214	246,221	
Operating Weight	kg	237 596	238 529	239 142	239 682	
	lb	613,808	615,865	617,216	618,408	
Weight Distribution at SAE Carry – Front	kg	124 200	125 886	127 007	127 998	
	lb	420,535	424,729	427,519	430,005	
Weight Distribution at SAE Carry – Rear	kg	113 395	112 642	112 134	111 684	
	lb	193,273	191,136	189,697	188,403	
Loaded Machine Weight	kg	278 419	279 352	279 965	280 505	
	Ib	330,790	327,016	324,503	322,248	
Weight Distribution at SAE Carry – Front	kg	190 752	192 654	193 919	195 047	
	lb	270,840	267,165	264,720	262,529	
Weight Distribution at SAE Carry – Rear	kg	87 667	86 698	86 045	85 458	
	lb	276,887	267,976	262,401	257,304	

\*With Tire Squash.

#### **Operating Specifications – High Lift**

For machines equipped with 58/85-57 tires (SLR: 1820 mm/6 ft) – see additional tables for other tire sizes.

Bucket Type			Ro	ck		
Ground Engaging Tools			Teeth &	Segment		
Cutting Edge Type		Spade				
Bucket Part No. (Group Level)		389-4420	389-4430	389-4440	389-4450	
Bucket Load at Rated Capacity	kg	38 102	38 102	38 102	38 102	
	lb	84,000	84,000	84,000	84,000	
Rated Capacity	m <sup>3</sup>	19.1	21.4	22.9	24.5	
	yd <sup>3</sup>	25	28	30	32	
Struck Capacity – ISO	m <sup>3</sup>	15	18	19	20	
	yd <sup>3</sup>	19.6	23.5	24.9	26.2	
Heaped Capacity – ISO	m <sup>3</sup>	19	21	23	24	
	yd <sup>3</sup>	24.9	27.5	30.0	31.4	
Bucket Width – Overall	mm	6220	6220	6220	6220	
	ft	20.4	20.4	20.4	20.4	
Clearance at 45° Dump (Tooth Tip)	mm	7208	7098	7028	6960	
	ft	23.6	23.3	23.1	22.8	
Reach at 45° Dump (Tooth Tip)	mm	2581	2691	2762	2829	
	ft	8.5	8.8	9.1	9.3	
Bucket Pin at Maximum Lift	mm	9647	9647	9647	9647	
	ft	31.6	31.6	31.6	31.6	
Horizontal Arm and Level Bucket Reach	mm	6148	6303	6403	6498	
	ft	20.2	20.7	21.0	21.3	
Digging Depth (Segment)	mm	239	239	239	239	
	ft	0.8	0.8	0.8	0.8	
Overall Length – Bucket Level Ground	mm	18 299	18 454	18 554	18 649	
	ft	60.0	60.5	60.9	61.2	
Front Axle to Bucket Tip Ground	mm	6942	7097	7197	7292	
	ft	22.8	23.3	23.6	23.9	
Overall Height	mm	12 398	12 545	12 628	12 731	
	ft	40.7	41.2	41.4	41.8	
Turning Radius – Corner SAE Carry	mm	13 973	14 015	14 043	14 069	
	ft	45.8	46.0	46.1	46.2	
Reach at 45° Dump and 2.13 m (7 ft) Height (with Teeth)	mm	4918	5024	5092	5155	
	ft	16.1	16.5	16.7	16.9	
Rack Back Angle at SAE Carry	degree	53.5	53.5	53.5	53.5	
Full Dump at Maximum Lift	degree	-50.0	-50.0	-50.0	-50.0	

(chart continued on next page)

#### **Operating Specifications – High Lift (continued)**

For machines equipped with 58/85-57 tires (SLR: 1820 mm/6 ft) – see additional tables for other tire sizes.

Bucket Type			Ro	ock		
Ground Engaging Tools		Teeth & Segment				
Cutting Edge Type		Spade				
Bucket Part No. (Group Level)		389-4420	389-4430	389-4440	389-4450	
Bucket Load at Rated Capacity	kg	38 102	38 102	38 102	38 102	
1 5	lb	84,000	84,000	84,000	84,000	
Rated Capacity	m <sup>3</sup>	19.1	21.4	22.9	24.5	
	yd <sup>3</sup>	25	28	30	32	
Struck Capacity – ISO	m <sup>3</sup>	15	18	19	20	
	yd <sup>3</sup>	19.6	23.5	24.9	26.2	
Heaped Capacity – ISO	m <sup>3</sup>	19	21	23	24	
	yd <sup>3</sup>	24.9	27.5	30.0	31.4	
Tipping Load at Operating Weight – Straight	kg	139 505	138 059	137 094	136 235	
	lb	307,557	304,369	302,241	300,346	
Tipping Load at Operating Weight – Straight*	kg	132 252	130 748	129 745	128 849	
	lb	264,048	260,969	258,913	257,087	
Tipping Load at Operating Weight – Articulated 40°	kg	119 770	118 374	117 441	116 613	
	lb	257,224	249,072	243,962	239,291	
Tipping Load at Operating Weight – Articulated 40°*	kg	107 846	106 361	105 373	104 491	
	lb	300,724	280,514	268,623	258,090	
Tipping Load at Operating Weight – Bucket Level Ground	kg	116 675	112 977	110 659	108 540	
	lb	206,377	200,546	196,851	193,472	
Tipping Load at Operating Weight – Bucket Level Ground*	kg	109 883	106 480	104 341	102 384	
	lb	232,273	232,273	232,273	232,273	
Breakout Force – SAE Rated	kN	1337.7	1247.8	1194.9	1148.0	
	lbf	526,906	528,963	530,314	531,506	
Lift Capacity – Bucket Level Ground	kN	918.0	892.1	875.6	860.6	
	lbf	283,921	287,783	290,350	292,612	
Single Stall Rimpull	kN	1033.2	1033.2	1033.2	1033.2	
	lbf	242,985	241,180	239,965	238,895	
Operating Weight	kg	239 001	239 934	240 547	241 087	
	lb	610,907	612,963	614,315	615,507	
Weight Distribution at SAE Carry – Front	kg	128 784	130 536	131 700	132 726	
	lb	428,104	432,303	435,095	437,571	
Weight Distribution at SAE Carry – Rear	kg	110 216	109 397	108 846	108 361	
	lb	182,802	180,660	179,220	177,936	
Loaded Machine Weight	kg	277 103	278 036	278 649	279 189	
	lb	291,566	288,250	286,039	284,063	
Weight Distribution at SAE Carry – Front	kg	194 185	196 090	197 356	198 479	
	lb	237,760	234,486	232,308	230,363	
Weight Distribution at SAE Carry – Rear	kg	82 918	81 946	81 293	80 710	
	lb	242,251	234,748	230,033	225,718	

\*With Tire Squash.

#### **Standard Equipment**

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

#### ELECTRICAL

- Alarm, back-up
- Alternator (225 amp)
- Batteries, dry
- Converter, 10/15 amp, 24V to 12V
- Disconnect switch in bumper
- LED lights, programmable warning lights
- LED work lights
- Lighting system (halogen, work lights, access and service platform lighting)
- Starter emergency start receptacle
- Starter lockout in bumper
- Starting and charging system, 24V
- Transmission lockout in bumper

#### **OPERATOR ENVIRONMENT**

- Air conditioner
- Cab pressure indicator
- Cab, sound suppressed and pressurized, separate external rollover protective structure (ROPS/FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port
- Cat Detect Vision, rear vision camera system
- Cigar lighter, ashtray
- Coat hook
- Controls, lift and tilt function
- Graphical Touchscreen Display, displays real time operating information, performs calibrations and customizes operator settings.
- Heater, defroster, auto temperature controls
- Horns, electric (field and shop)
- Instrumentation, gauges
- Coolant temperature
- Engine hour meter
- Hydraulic oil temperature
- Power train oil temperature

- Instrumentation, warning indicators
- Action alert system, three category
- Brake malfunction
- Bucket float status
- Delayed engine shutdown status
- Engine idle shutdown status
- Engine malfunction
- Fuel economy mode enable status
- Hydraulic lockout
- Lockup clutch enable status
- Low fuel level
- Parking brake status
- Quick shift enable status
- Rimpull control enable status
- Seat belt warning
- Secondary steering
- Throttle lock status
- Transmission gear
- Turn signal
- Keypad, control with indicator lights
- Fuel economy mode
- Implement kickouts
- Lockup clutch
- Manual lube
- Quickshift enable
- Rimpull control system
- Side rearview mirror heater
- Throttle lock
- Turn signals
- Light, cab, dome
- Lunchbox, beverage holders
- Mirrors, rearview (externally mounted)
- Seat belt, retractable, 76 mm (3 in) wide
- Seat, Cat Comfort (cloth), air suspension, six-way adjustable
- Seat, trainer with lap belt, 76 mm (3 in) wide
- STIC Control System
- Sun screen
- Tinted glass
- Transmission gear indicator
- Vital Information Management System (VIMS) with Advisor 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

(continued on next page)

#### Standard Equipment (continued)

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

#### **POWER TRAIN**

- · Brakes, oil-cooled, multi-disc, service/secondary
- Case drain filters
- Driveline parking brake
- Engine, 3516E HD MEUI-A (ATAAC) diesel, turbocharged/aftercooled
- Engine Prelube
- Fuel priming pump (electric)
- Ground level engine shutoff
- Precleaner, engine air intake (above hood)
- Radiator, Next Generation Modular (NGMR)
- Power train oil coolers (2) air to oil, (2) water to oil
- Starting aid, ether, automatic
- Throttle lock, electronic
- Torque converter, Impeller Clutch (ICTC) with LUC, Rimpull Control System
- Transmission, planetary powershift, 3F/3R electronic control

#### OTHER

- Automatic bucket lift kickout/positioner
- Automatic lubrication system
- Blower fan
- Couplings, Cat O-ring face seals
- Doors, service access (locking)
- Ecology drains for engine, radiator, hydraulic tank, steering, brake cooling tank, and axles
- Economy Mode
- Engine oil change system, high speed (Shaw-Aero)
- Front frame access with steps
- Front walkway
- Fuel tank, 3445 L (910 gal)
- Ground level fast fill fuel system (Shaw-Aero)
- Guard, crankcase
- Hitch, drawbar with pin
- Hoses, Cat XT™
- Hydraulic, steering and brake filtration/screening system
- Left side service center
- Mufflers (2)
- · Oil sampling valves
- Premixed 50% concentration of extended life coolant with freeze protection to  $-34^\circ$  C (-29° F)
- Pump bay access ladders with T-handle and platform
- · Rear access to cab and service platform
- Steering, load sensing
- Supplemental steering system
- Tie-offs on ROPS
- Toe kicks
- Vandalism protection caplocks

## 994K Optional Equipment and Mandatory Attachments

#### **Optional Equipment**

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

#### **POWER TRAIN**

• Engine oil renewal system

#### ELECTRICAL

Service lights

#### **OPERATOR ENVIRONMENT**

- AM/FM/CD/MP3 radio
- Satellite Sirius radio with bluetooth

#### MACHINE CONTROL AND GUIDANCE

• Cat Terrain ready

#### **SPARE RIMS**

- 1118 mm (44") spare rim
- 1194 mm (47") spare rim

#### **MISCELLANEOUS ATTACHMENTS**

• Wheel chocks

#### **Mandatory Attachments**

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

#### LINKAGE

- Standard
- High

#### ELECTRICAL

- No Product Link<sup>TM</sup>
- Product Link (Satellite)

#### ENGINE

- No sound suppression
- Sound suppression

#### **FUEL TANK**

- Standard 3445 L (910 gal)
- 24 hour 5678 L (1,500 gal)

#### COOLING

- Standard
- High ambient

#### FAN BYPASS

- Non-arctic
- Arctic

#### **OPERATOR ENVIRONMENT**

- Standard glass
- Rubber mounted glass
- Rubber mounted SLR and impact resistant
- Standard seat
- · Deluxe heated and ventilated seat
- Standard mirror
- Heated mirror
- Access steps
- Powered Access
- Vision Display
- Cat Detect (Object Detection)

#### **FUEL SYSTEM**

- Fuel line heater delete
- · Cold weather starting

#### RIMS

- 1118 mm (44") (44×57)
- 1194 mm (47") (47×57)

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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