994H

Wheel Loader

Engine		
Engine Model	Cat® 3516B HD EUI	
Gross Power – SAE J1995	1176 kW	1,577 hp
Net Power – ISO 9249	1092 kW	1,463 hp
Buckets		
Bucket Capacities	14-36 m^3	18.5-47 yd^3

Operating Specifications		
Rated Payload – Standard Lift	35 tonnes	38 tons
Rated Payload – High Lift	32 tonnes	35 tons
Rated Payload – Extended High Lift	32 tonnes	35 tons
Rated Payload – Super High Lift	32 tonnes	35 tons
Operating Weight	195 434 kg	430,858 lb

Lower your cost per ton with built-in durability.

Contents

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. 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.

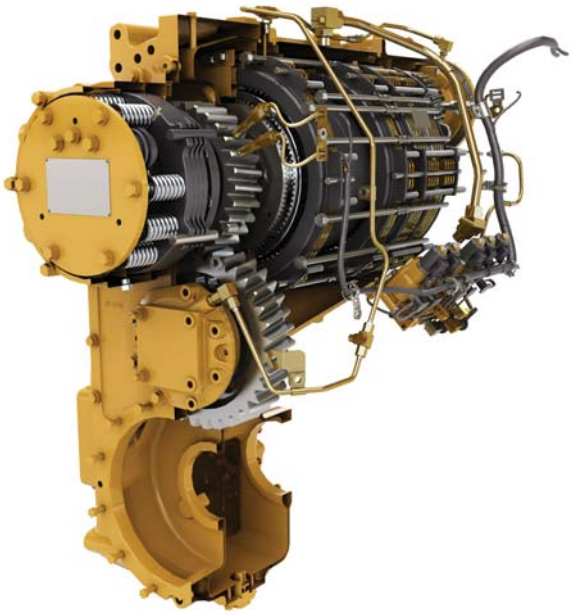
Robust Structures

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 connected to an auto lube 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

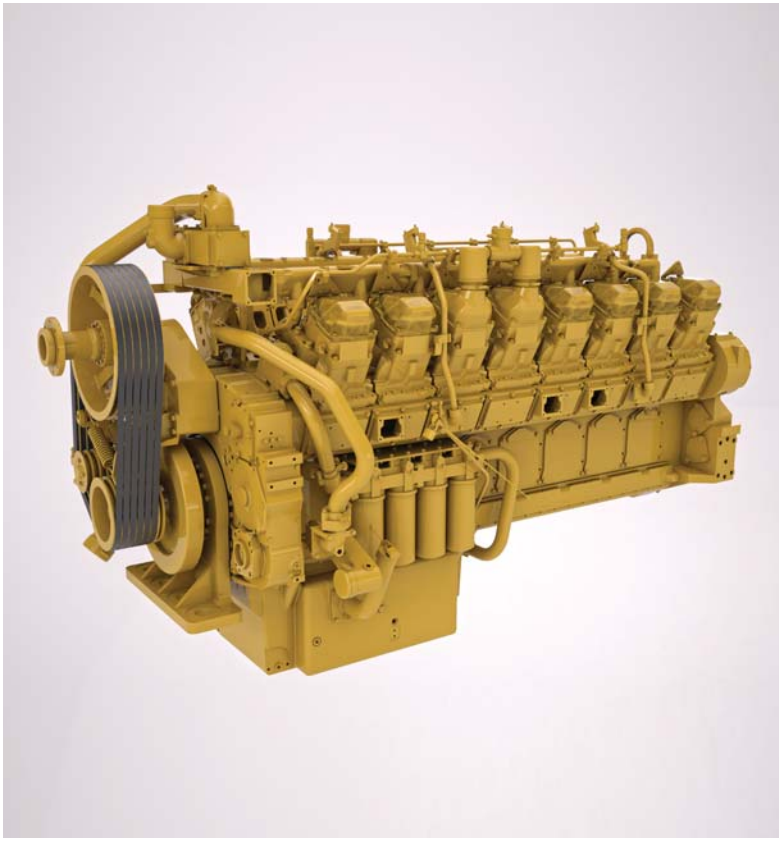
Building your success begins with a best-in-class transmission designed specifically for mining applications.

- Consistent, smooth shifting and efficiency through integrated electronic controls.
- Long life and reliability through heat treat gear and metallurgy.
- Three forward and three reverse speeds to match your application.

Cat 3516B HD Engine

Durability and efficiency at the heart of your 994H comes from the Cat 3516B HD 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 – 32% 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 engine controls.



Power Train

Move material more efficiently with improved power and control.

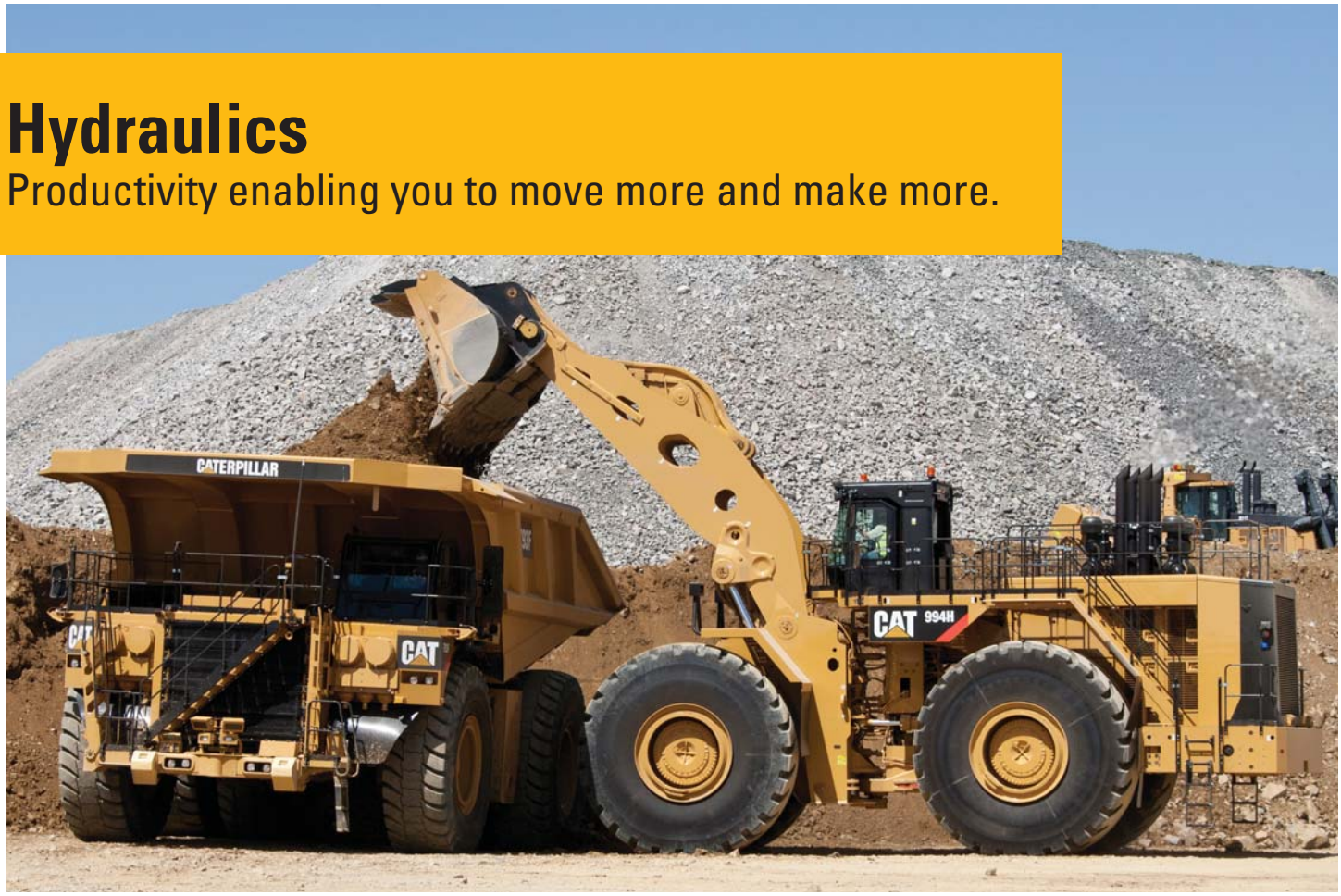
Impeller Clutch Torque Converter (ICTC) and Rimpull Control System (RCS)

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.

- Lowered fuel consumption by up to 10% compared to the 994F.
- Fast, productive cycles enabled by four electronically controlled, fully variable piston pumps.
- Increase bucket feel and control through increased hydraulic response.
- Consistent performance and efficiency with lower system heat.

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

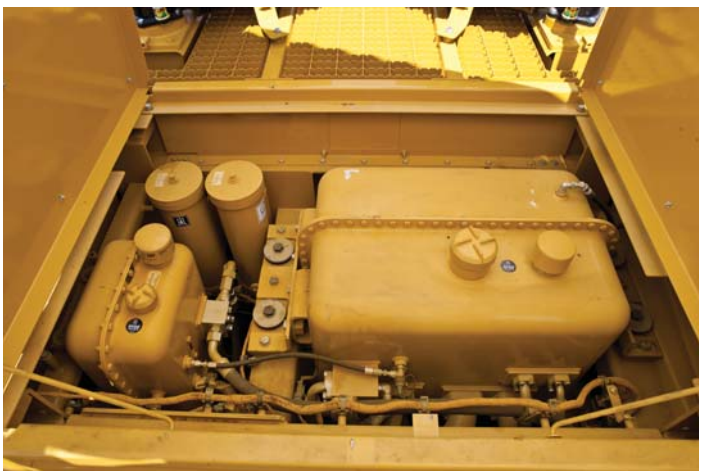
Confident loader operation starts with precise machine control enabled by the 994H's load sensing hydraulic steering system.

- 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.
- Front pump drive lube filter.
- Front and rear brake oil screens.



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/arm rest.
- Reduced access stairway angles.

Cat Comfort Series III Seat

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

- 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.

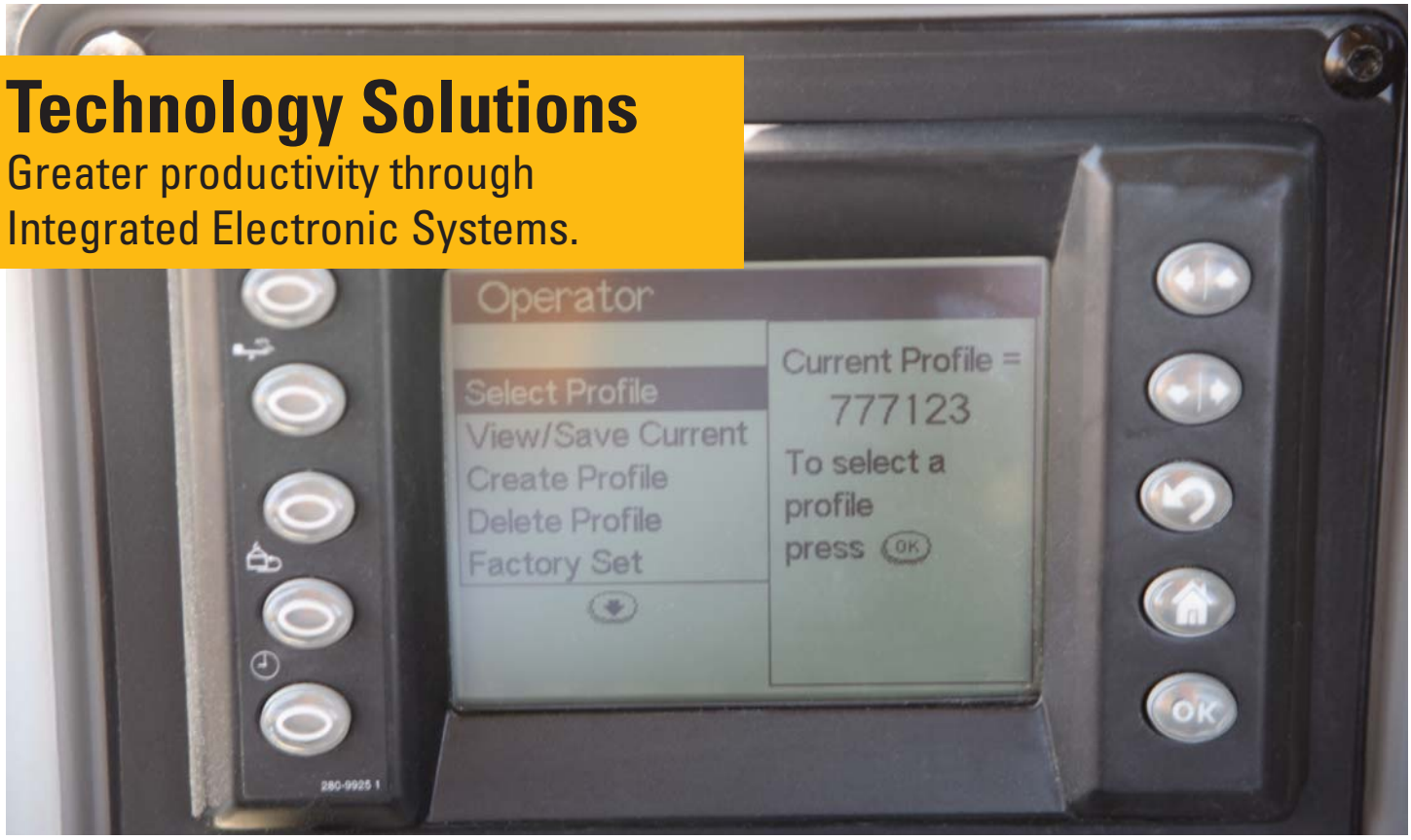
Environment

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 filtered air.
- Sound level reduced to a quiet 71 dB(A).

Technology Solutions

Greater productivity through Integrated Electronic Systems.



The 994H 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™ 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.

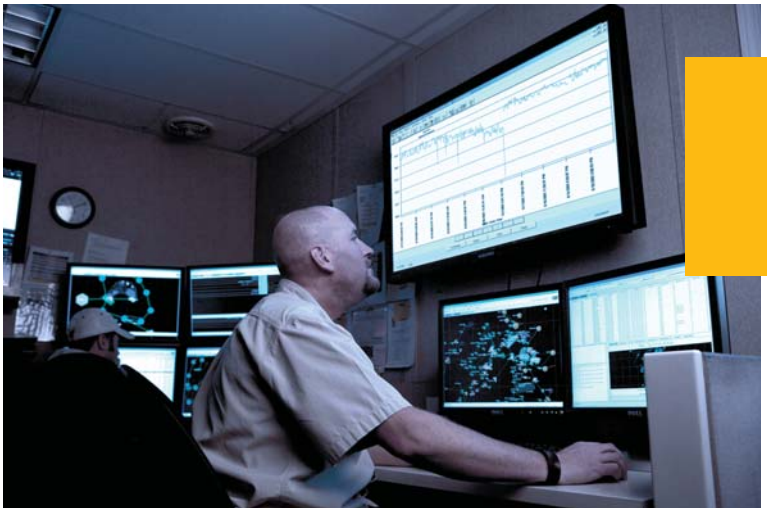
- Quick payload weighs with on-the-go weighing.
- Comprehensive record accuracy of machine performance with up to 1,000 truck records with 25 different materials.

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



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 994H 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 994H enables high-precision management of loading operations through the use of guidance technology. It increases 994H'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.

Safety

Making your safety our priority.

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.
- Occupants can quickly exit with a conveniently located emergency release valve if the loader becomes inoperable.

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

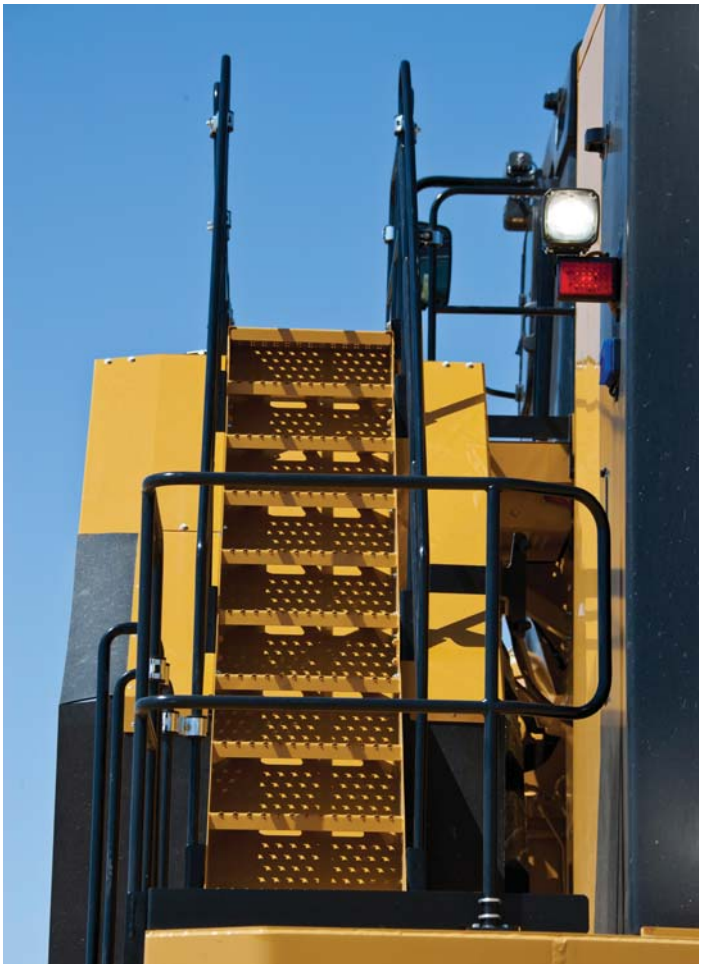
- Wider stairs with reduced stair angles increase safety for operators getting on and off the 994H.
- Walkways with non-skid surfaces and integrated lock out/tag out points are designed into the service areas.
- Windshield cleaning platforms provide safe and convenient access for the operator.
- Maintain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

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 HID lights provide excellent workspace visibility.
- Cab mounted LED warning beacons.

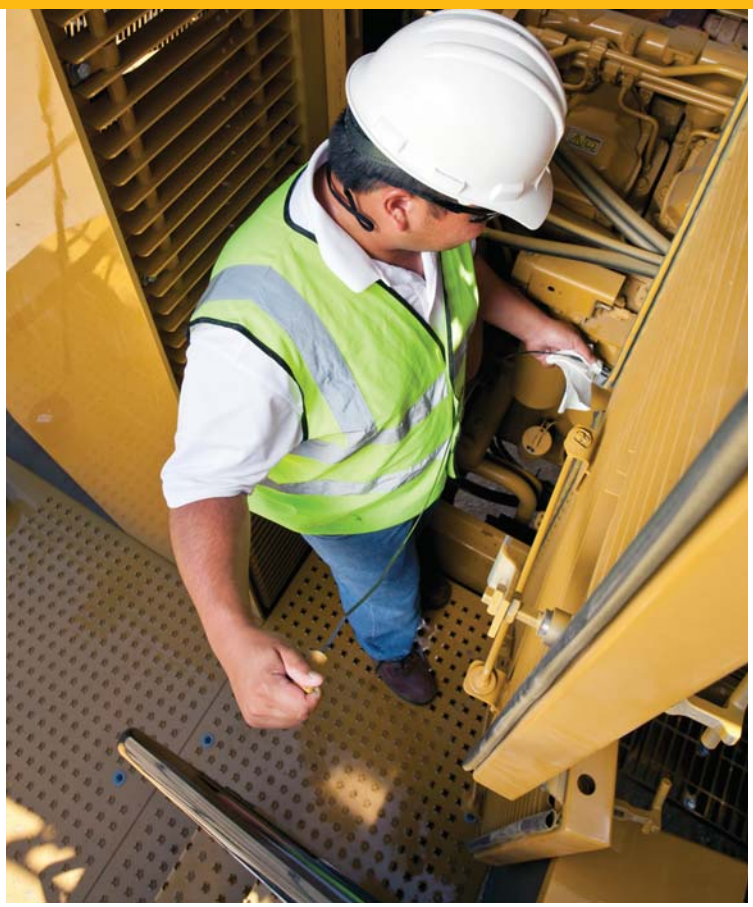
Operator Environment

- 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.



Serviceability

Enabling high uptime by reducing your service time.



We can help you succeed by ensuring your 994H 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.

Sustainability

Stewards of the environment.

Protecting the Environment

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

- Burns up to 10% less fuel than the previous model to minimize your CO_2 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 994H 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.

System Match Efficiency

Efficient loading/hauling system starts with a perfect match.

	785D	789D	793F	789D Coal Body	793F Coal Body
Standard Lift	4	5			
High Lift		6	7		
Extended High Lift*		6	7		
Super High Lift				6	7

* The longer linkage makes it easier to load 789 and 793 Rock bodies and some Coal bodies.

Application Match

The standard 994H is sized to load the 136 tonnes (150 ton) 785 in four passes. The 994H High Lift and the Extended High Lift load the 177 tonnes (195 ton) 789 in six passes and the 227 tonnes (240 ton) 793 in seven passes. The 994H Super High Lift loads the 177 tonnes (195 ton) 789 coal body in six passes and the 227 tonnes (240 ton) 793 coal body in seven 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 width depends on penetration requirements and the loading target. Bucket sizes are matched to truck bed capacities for optimum loading efficiency and greater productivity.

- **Narrow Bucket.** The narrower 5650 mm (222 in) buckets are optimally matched to load the Cat 785; they are also sized for the 789.
- **Wide Bucket.** The wider 6220 mm (244 in) buckets are optimally matched to load the larger Cat 789; they are also sized for the 793.

Bucket Ground Engaging Tools

Protect your investment.

Selecting the right bucket will determine the productivity of your loader. The process of selection starts with knowing the density of the material you load. From there, you can select the size and appropriate protection strategies that will suit the rated payload targets of your machine. Your Cat dealer can help you configure your bucket or have a custom bucket made to suit your application.

Heavy Duty Rock Bucket

Applications: Face loading tightly compacted pit materials. Moderate-abrasion factors and high-impact loads are suitable for this bucket.

High Abrasion Rock Bucket

Applications: Face loading iron ore. High-abrasion and moderate-impact loads are suitable for this bucket. A smooth floor is also desirable.

Coal Bucket

Applications: 36 m^3 (47 yd^3) for coal or other light density non abrasive materials.

Note: Some applications can be very abrasive. Consider that additional bucket protection can affect the performance of the machine through higher horsepower demand, higher fuel consumption and reduced productivity. With this in mind, it is important that you select appropriate protection for your application.

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. For a full list of Cat GET please visit *http://www.cat.com/get.*

994H Wheel Loader Specifications

Engine

Engine Model	Cat® 3516B HD EUI	
Rated Speed	1,600 rpm	
Gross Power – SAE J1995	1176 kW	1,577 hp
Net Power – EEC 80/1269	1092 kW	1,463 hp
Net Power – ISO 9249	1092 kW	1,463 hp
Net Power – SAE J1349	1079 kW	1,447 hp
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78 L	4,875 in^3
Peak Torque @ 1,100 rpm	8499 N•m	6,289 lb ft
Torque Rise	32%	

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Net torque rise meets SAE J139.
- No engine derating required up to 3050 m (10,000 ft) altitude.

Operating Specifications

Operating Weight	195 434 kg	430,858 lb
Rated Payload – Standard	35 tonnes	38 tons
Rated Payload – High Lift	32 tonnes	35 tons
Rated Payload – Extended High Lift	32 tonnes	35 tons
Rated Payload – Super High Lift	32 tonnes	35 tons
Bucket Capacity Range	14-36 m^3	18.5-47 yd^3
Cat Truck Match – Standard	785, 789	
Cat Truck Match – High Lift	789, 793	
Cat Truck Match – Extended High Lift	789, 793	
Cat Truck Match – Super High Lift	789, 793	
Articulation Angle	40°	

Transmission

Transmission Type	Cat planetary power shift	
Forward 1	7.7 km/h	4.8 mph
Forward 2	13.2 km/h	8.2 mph
Forward 3	23.4 km/h	14.5 mph
Reverse 1	8.2 km/h	5.1 mph
Reverse 2	14.6 km/h	9.1 mph
Reverse 3	25.6 km/h	15.9 mph
Direct Drive – Forward 1	Lock-up disabled	
Direct Drive – Forward 2	13.7 km/h	8.5 mph
Direct Drive – Forward 3	24 km/h	14.9 mph
Direct Drive – Reverse 1	8.5 km/h	5.3 mph
Direct Drive – Reverse 2	13.5 km/h	8.4 mph
Direct Drive – Reverse 3	25.6 km/h	16 mph

- Travel speeds based on two percent rolling resistance and 53.5/85–57 tires in converter drive.

Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	Positive Flow Control	
Lift/Tilt System – Pump	4x Piston, variable displacement	
Max Flow at 1,710 rpm (3x)	1460 L/min	386 gal/min
Relief Valve Setting – Lift/Tilt	32 800 kPa	4,750 psi
Cylinders – Lift/Tilt	Double-acting	
Lift Cylinder – Bore*	318 mm	13 in
Lift Cylinder – Stroke*	1705 mm	67.1 in
Tilt Cylinder – Bore*	267 mm	10.5 in
Tilt Cylinder – Stroke*	1140 mm	44.9 in
Number of Lift/Tilt Pumps	4	
Number of Lift Cylinders	2	
Number of Tilt Cylinders	2	

* 994H High Lift configuration

Hydraulic Cycle Time

994H High Lift Cycle Times	
Rackback	5.5 Seconds
Raise	12.2 Seconds
Dump	3.3 Seconds
Lower	4.4 Seconds

Service Refill Capacities

Fuel Tank	3833 L	1,013 gal
Cooling System	490 L	129 gal
Crankcase	271 L	72 gal
Transmission	391 L	103 gal
Differentials and Final Drives – Front	620 L	164 gal
Differentials and Final Drives – Rear	620 L	164 gal
Differential/Final Drives (each)	620 L	164 gal
Hydraulics – Lift/Tilt	390 L	103 gal
Hydraulics – Brake Cooling (tank)	36 L	9 gal
Hydraulics – Steering/Brake (tank)	208 L	55 gal
Hydraulic System (including tank)	623 L	165 gal

Buckets

Bucket Capacities	14 – 36 m^3	18.5 – 47 yd^3

Axles

Maximum Single-Wheel Rise and Fall	677 mm	26.65 in
Front	Fixed	
Rear	Trunnion	
Oscillation Angle	±10°	

Brakes

Brakes	SAE J1473 OCT90, ISO 3450:1992

Cab

Air Conditioning	Standard air conditioning system contains environmentally friendly R134a refrigerant
Cab – ROPS/FOPS	SAE J11040 APR88, ISO 3471:2008, ISO 3471:1994

Cat cab with separate Rollover Protective Structure/Falling Object Protective Structure (ROPS/FOPS) is standard in North America, Europe and Japan.

- ROPS meets SAE J11040 APR88, ISO 3471:2008 and ISO 3471:1994 criteria.
- FOPS meets SAE J231 JAN81 and ISO 3449:1992 Level II criteria.

Sound Performance

- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 FEB08 is 71 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 FEB06, mid-gear-moving operation, is 87 dB(A).
- The dynamic operator sound pressure level is 71 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab.

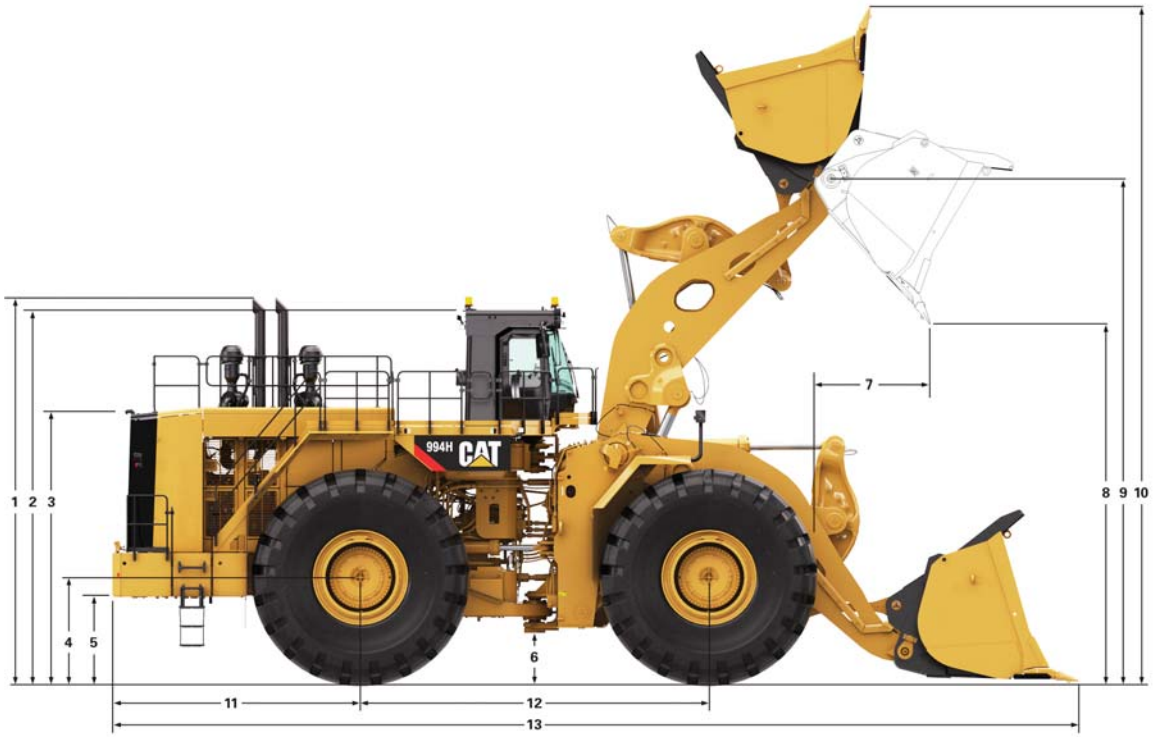
Hydraulic System – Steering

Steering System – Circuit	Closed	
Steering System – Pump	Piston, variable displacement	
Max Flow @ 1,710 rpm (6900 kPa) (2x)	884 L/min	234 gal/min
Relief Valve Setting – Steering	3100 kPa	4,500 psi
Number of Steering Pumps	2	

994H Wheel Loader Specifications

Dimensions

All dimensions are approximate.



		Standard* 53.5/85–57 tires		High Lift** 53.5/85–57 tires		Extended High Lift** 58/85–57 tires		Super High Lift*** 58/85–57 tires	
1	Ground to Top of Exhaust Stacks	7000 mm	23.0 ft	6990 mm	22.9 ft	7010 mm	23.0 ft	7000 mm	23.0 ft
2	Ground to Top of ROPS	6750 mm	22.1 ft	6740 mm	22.1 ft	6750 mm	22.1 ft	6750 mm	22.1 ft
3	Ground to Top of Hood	4840 mm	15.9 ft	4840 mm	15.9 ft	4850 mm	15.9 ft	4850 mm	15.9 ft
4	Ground to Center of Front Axle	1830 mm	6.0 ft	1820 mm	6.0 ft	1840 mm	6.0 ft	1830 mm	6.0 ft
5	Ground to Bumper Clearance	1480 mm	4.9 ft	1480 mm	4.9 ft	1490 mm	4.9 ft	1490 mm	4.9 ft
6	Ground to Lower Hitch Clearance	820 mm	2.7 ft	820 mm	2.7 ft	830 mm	2.7 ft	830 mm	2.7 ft
7	Reach at Maximum Lift, Dump Position	2309 mm	7.6 ft	2764 mm	9.1 ft	2725 mm	8.9 ft	3200 mm	10.5 ft
8	Clearance at Maximum Lift, Dump Position	5578 mm	18.3 ft	6024 mm	19.8 ft	7080 mm	23.2 ft	6773 mm	22.2 ft
9	Ground to B-Pin Center Line, Maximum Lift	8140 mm	26.7 ft	8479 mm	27.8 ft	9535 mm	31.3 ft	10 060 mm	33.0 ft
10	Ground to Maximum Bucket Height, Maximum Lift	10 933 mm	35.9 ft	10 983 mm	36.0 ft	12 038 mm	32.9 ft	13 849 mm	45.4 ft
11	Rear Axle Center Line to Bumper	4560 mm	15.0 ft	4560 mm	15.0 ft	4560 mm	15.0 ft	4560 mm	15.0 ft
12	Front Axle Center Line to Rear Axle Center Line (Wheel Base)	6400 mm	21.0 ft	6400 mm	21.0 ft	6400 mm	21.0 ft	6400 mm	21.0 ft
13	Bumper to Bucket Tip (Machine Length), Ground Position	16 877 mm	55.4 ft	17 521 mm	57.5 ft	18 408 mm	60.4 ft	18 916 mm	62.1 ft

*Standard machine equipped with 19 m^3 (25 yd^3) 222 in bucket.

**High Lift and Extended High Lift machines equipped with 18 m^3 (23.5 yd^3) 245 in bucket.

***Super High Lift machine equipped with 36 m^3 (47 yd^3) 256 in bucket.

Bucket Capacity/Material Density Selection Guide

Standard Linkage

Material Density				Bucket Volume	
kg/m³	lb/yd³	tonnes/m³	tons/yd³	m³	yd³
1720-1898	2,900-3,200	1.72-1.90	1.45-1.60	19	24.5
1898-2135	3,200-3,600	1.90-2.14	1.60-1.80	17	22.5
2135-2432	3,600-4,100	2.14-2.43	1.80-2.05	15	19.5

High Lift/Extended High Lift/Super High Lift

Material Density				Bucket Volume	
kg/m³	lb/yd³	tonnes/m³	tons/yd³	m³	yd³
1601-1780	2,700-3,000	1.60-1.78	1.35-1.50	19	24.5
1780-1958	3,000-3,300	1.78-1.96	1.50-1.65	17	22.5
1958-2136	3,300-3,600	1.96-2.14	1.65-1.80	15	19.5

994H Wheel Loader Specifications

Operating Specifications – Standard Lift

For machines equipped with 53.5/85–57 76PR FS L-5 tires – see additional tables for other tire sizes.

Bucket Type		Rock					Coal
Ground Engaging Tools		Teeth & Segment					Teeth & Segment
Cutting Edge Type		Spade					Straight
Bucket Part No. (Group Level)		257-3682	257-3684	257-3686	251-4560	257-3690	257-3692
Bucket Load at Rated Capacity	kg	34 473	34 473	34 473	34 473	34 473	34 473
	lb	76,000	76,000	76,000	76,000	76,000	76,000
Rated Capacity	m^3	15.0	17.0	19.0	18.0	19.0	32.0
	yd^3	19.5	22.5	25.0	23.5	25.0	41.9
Struck Capacity – ISO	m^3	12.0	14.0	15.0	14.5	15.0	27.0
	yd^3	16.0	18.5	19.6	19.0	19.6	35.3
Bucket Width – Overall	mm	5640	5640	5640	6200	6200	6200
	ft	18.5	18.5	18.5	20.3	20.3	20.3
Clearance at 45° Dump (Tooth Tip)	mm	5786	5685	5578	5685	5578	5651
	ft	19.0	18.6	18.3	18.6	18.3	18.5
Reach at 45° Dump (Tooth Tip)	mm	2101	2203	2309	2203	2309	2365
	ft	6.9	7.2	7.6	7.2	7.6	7.8
Horizontal Arm and Level Bucket Reach	mm	4955	5099	5249	5099	5249	5238
	ft	16.3	16.7	17.2	16.7	17.2	17.2
Digging Depth (Segment)	mm	86	86	86	86	86	86
	ft	0.28	0.28	0.28	0.28	0.28	0.28
Overall Length – Bucket Level Ground	mm	16 583	16 727	16 877	16 727	16 877	16 865
	ft	54.4	54.9	55.4	54.9	55.4	55.3
Overall Height	mm	10 740	10 887	10 933	10 643	10 658	11 867
	ft	35.2	35.7	35.9	34.9	35.0	38.9
Turning Radius – Corner SAE Carry	mm	12 930	12 704	12 742	12 965	13 002	13 073
	ft	42.4	41.7	41.8	42.5	42.7	42.9
Tipping Load – Straight	kg	136 670	135 804	134 014	133 412	131 997	134 864
	lb	301,306	299,397	295,451	294,124	291,003	297,324
Tipping Load – Straight*	kg	125 026	123 991	122 211	121 834	120 455	122 263
	lb	275,634	273,353	269,429	268,597	265,558	269,543
Tipping Load – Articulated 40°	kg	118 039	117 146	115 435	114 873	113 553	116 104
	lb	260,232	258,262	254,490	253,251	250,341	255,966
Tipping Load – Articulated 40°*	kg	102 998	101 869	100 157	99 906	98 623	99 738
	lb	227,072	224,582	220,808	220,254	217,425	219,884
Breakout Force – SAE Rated	kN	1133.0	1054.7	985.2	1059.9	995.3	974.0
	lb-f	254,700	237,117	221,485	238,269	223,752	218,954
Operating Weight	kg	195 565	196 225	197 305	197 525	198 255	198 695
	lb	431,146	432,602	434,983	435,468	437,077	438,047

*With Tire Squash (53.5/85–57 @ 724 kPa/105 psi).

Changes in Standard Lift Specifications due to Tire Size

Dimensional Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Dump Clearance 45°	mm	–136	–143	–89	0	–2
	in	–5	–6	–4	0	–0.1
Reach 45°	mm	+118	+143	+68	0	–15
	in	+5	+6	+3	0	–0.6
Reach Horizontal Arms	mm	+118	+143	+68	0	–15
	in	+5	+6	+3	0	–0.6
Digging Depth	mm	+136	+143	+89	0	+2
	in	+5	+6	+4	0	+0.1
Overall Length	mm	+105	+111	+70	0	+2
	in	+4	+4	+3	0	+0.1
Overall Height	mm	–136	–143	–89	0	–2
	in	–5	–6	–4	0	–0.1
Total Width	mm	+5305	+5302	+5509	+5460	+5524
	in	+209	+209	+217	+215	+217.5

Weight Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Tipping – Straight	kg	–4206	–3323	+231	0	+325
	lb	–9,273	–7,326	+509	0	+717
Tipping – Full 40° Turn	kg	–3715	–2934	+44	0	+287
	lb	–8,190	–6,468	+97	0	+633
Operating Weight	kg	–5388	–4256	+64	0	+416
	lb	–11,878	–9,383	+141	0	+917

994H Wheel Loader Specifications

Operating Specifications – High Lift

For machines equipped with 53.5/85–57 76PR FS L-5 tires – see additional tables for other tire sizes.

Bucket Type		Rock					Coal
Ground Engaging Tools		Teeth & Segment					Teeth & Segment
Cutting Edge Type		Spade					Straight
Bucket Part No. (Group Level)		257-3682	257-3684	257-3686	251-4560	257-3690	257-3692
Bucket Load at Rated Capacity	kg	31 752	31 752	31 752	31 752	31 752	31 752
	lb	70,000	70,000	70,000	70,000	70,000	70,000
Rated Capacity	m^3	15.0	17.0	19.0	18.0	19.0	32.0
	yd^3	19.5	22.5	25.0	23.5	25.0	41.9
Struck Capacity – ISO	m^3	12.0	14.0	15.0	14.5	15.0	27.0
	yd^3	16.0	18.5	19.6	19.0	19.6	35.3
Bucket Width – Overall	mm	5640	5640	5640	6200	6200	6200
	ft	18.5	18.5	18.5	20.3	20.3	20.3
Clearance at 45° Dump (Tooth Tip)	mm	6126	6024	5918	6024	5918	5990
	ft	20.1	19.8	19.4	19.8	19.4	19.7
Reach at 45° Dump (Tooth Tip)	mm	2663	2764	2871	2764	2871	2926
	ft	8.7	9.1	9.4	9.1	9.4	9.6
Horizontal Arm and Level Bucket Reach	mm	5595	5739	5889	5739	5889	5878
	ft	18.4	18.8	19.3	18.8	19.3	19.3
Digging Depth (Segment)	mm	206	206	206	206	206	206
	ft	0.68	0.68	0.68	0.68	0.68	0.68
Overall Length – Bucket Level Ground	mm	17 377	17 521	17 671	17 521	17 671	17 659
	ft	57.0	57.5	58.0	57.5	58.0	57.9
Overall Height	mm	11 080	11 227	11 273	10 983	10 998	12 207
	ft	36.4	36.8	37.0	36.0	36.1	40.0
Turning Radius – Corner SAE Carry	mm	13 214	12 993	13 030	13 249	13 285	13 346
	ft	43.4	42.6	42.8	43.5	43.6	43.8
Tipping Load – Straight	kg	113 740	112 933	111 348	110 772	109 568	111 922
	lb	250,754	248,974	245,481	244,211	241,556	246,745
Tipping Load – Straight*	kg	104 491	103 557	101 971	101 562	100 377	101 958
	lb	230,363	228,303	224,808	223,905	221,293	224,780
Tipping Load – Articulated 40°	kg	97 549	96 713	95 185	94 648	93 513	95 594
	lb	215,058	213,215	209,846	208,662	206,161	210,749
Tipping Load – Articulated 40°*	kg	85 519	84 502	82 962	82 661	81 544	82 547
	lb	188,538	186,294	182,899	182,236	179,773	181,985
Breakout Force – SAE Rated	kN	1090.5	1014.7	947.4	1019.4	957.1	935.9
	lb-f	245,143	228,112	212,991	229,163	215,167	210,405
Operating Weight	kg	198 300	198 960	200 040	200 260	200 990	201 430
	lb	437,175	438,631	441,012	441,497	443,106	444,076

*With Tire Squash (53.5/85–57 @ 724 kPa/105 psi).

Changes in High Lift Specifications due to Tire Size

Dimensional Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Dump Clearance 45°	mm	–136	–143	–89	0	–2
	in	–5	–6	–4	0	–0.1
Reach 45°	mm	+118	+143	+68	0	–15
	in	+5	+6	+3	0	–0.6
Reach Horizontal Arms	mm	+118	+143	+68	0	–15
	in	+5	+6	+3	0	–0.6
Digging Depth	mm	+136	+143	+89	0	+2
	in	+5	+6	+4	0	+0.1
Overall Length	mm	+90	+94	+59	0	+1
	in	+4	+4	+2	0	+0.0
Overall Height	mm	–136	–143	–89	0	–2
	in	–5	–6	–4	0	–0.1
Total Width	mm	+5305	+5302	+5509	+5460	+5524
	in	+209	+209	+217	+215	+217.5

Weight Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Tipping – Straight	kg	–3674	–2902	+44	0	+284
	lb	–8,100	–6,398	+97	0	+626
Tipping – Full 40° Turn	kg	–3244	–2653	+39	0	+250
	lb	–7,152	–5,849	+86	0	+551
Operating Weight	kg	–5388	–4256	+64	0	+416
	lb	–11,878	–9,383	+141	0	+917

994H Wheel Loader Specifications

Operating Specifications – Extended High Lift

For machines equipped with 58/85–57 84PR L-4 tires – see additional tables for other tire sizes.

Bucket Type		Rock					Coal
Ground Engaging Tools		Teeth & Segment					Teeth & Segment
Cutting Edge Type		Spade					Straight
Bucket Part No. (Group Level)		257-3682	257-3684	257-3686	251-4560	257-3690	257-3692
Bucket Load at Rated Capacity	kg	31 752	31 752	31 752	31 752	31 752	31 752
	lb	70,000	70,000	70,000	70,000	70,000	70,000
Rated Capacity	m^3	15.0	17.0	19.0	18.0	19.0	32.0
	yd^3	19.5	22.5	25.0	23.5	25.0	41.9
Struck Capacity – ISO	m^3	12.0	14.0	15.0	14.5	15.0	27.0
	yd^3	16.0	18.5	19.6	19.0	19.6	35.3
Bucket Width – Overall	mm	5640	5640	5640	6200	6200	6200
	ft	18.5	18.5	18.5	20.3	20.3	20.3
Clearance at 45° Dump (Tooth Tip)	mm	7182	7080	6974	7080	6974	7046
	ft	23.6	23.2	22.9	23.2	22.9	23.1
Reach at 45° Dump (Tooth Tip)	mm	2623	2725	2831	2725	2831	2887
	ft	8.6	8.9	9.3	8.9	9.3	9.5
Horizontal Arm and Level Bucket Reach	mm	6330	6474	6624	6474	6624	6613
	ft	20.8	21.2	21.7	21.2	21.7	21.7
Digging Depth (Segment)	mm	106	106	106	106	106	106
	ft	0.35	0.35	0.35	0.35	0.35	0.35
Overall Length – Bucket Level Ground	mm	18 264	18 408	18 558	18 408	18 558	18 546
	ft	59.9	60.4	60.9	60.4	60.9	60.8
Overall Height	mm	12 136	12 283	12 329	12 038	12 054	13 263
	ft	39.8	40.3	40.4	39.5	39.5	43.5
Turning Radius – Corner SAE Carry	mm	13 689	13 486	13 531	13 732	13 776	13 864
	ft	44.9	44.2	44.4	45.1	45.2	45.5
Tipping Load – Straight	kg	101 931	101 019	99 492	99 111	97 982	99 303
	lb	224,719	222,708	219,343	218,503	216,013	218,925
Tipping Load – Straight*	kg	97 617	96 620	95 082	94 812	93 683	94 495
	lb	215,207	213,010	209,620	209,024	206,536	208,326
Tipping Load – Articulated 40°	kg	86 490	85 569	84 095	83 729	82 662	83 825
	lb	190,677	188,647	185,397	184,591	182,239	184,801
Tipping Load – Articulated 40°*	kg	78 963	77 913	76 422	76 225	75 161	75 570
	lb	174,084	171,768	168,481	168,047	165,701	166,604
Breakout Force – SAE Rated	kN	1047.0	973.8	908.8	978.0	918.1	897.1
	lb-f	235,382	218,914	204,315	219,860	206,399	201,673
Operating Weight	kg	205 728	206 388	207 468	207 688	208 418	208 858
	lb	453,552	455,008	457,388	457,874	459,483	460,453

*With Tire Squash (58/85–57 @ 724 kPa/105 psi).

Changes in Extended High Lift Specifications due to Tire Size

Dimensional Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Dump Clearance 45°	mm	–134	–141	–87	+2	0
	in	–5	–6	–3	+0.08	0
Reach 45°	mm	+133	+158	+83	+15	0
	in	+5	+6	+3	+1	0
Reach Horizontal Arms	mm	+133	+158	+83	+15	0
	in	+5	+6	+3	+1	0
Digging Depth	mm	+134	+141	+87	–2	0
	in	+5	+6	+3	–0.08	0
Overall Length	mm	+89	+93	+58	–1	0
	in	+4	+4	+2	–0.04	0
Overall Height	mm	–134	–141	–87	+2	0
	in	–5	–6	–3	+0.08	0
Total Width	mm	+5305	+5302	+5509	+5460	+5524
	in	+209	+209	+217	+215	+217.5

Weight Changes

		50/80–57	52/80–57	55/80R57	53.5/85–57	58/85–57
Tipping – Straight	kg	–3058	–2462	–185	–219	0
	lb	–6,742	–5,428	–408	–483	0
Tipping – Full 40° Turn	kg	–2700	–2174	–163	–193	0
	lb	–5,952	–4,793	–359	–425	0
Operating Weight	kg	–5804	–4672	–352	–416	0
	lb	–12,796	–10,300	–776	–917	0

Operating Specifications – Super High Lift

Machines only equipped with 58/85–57 84PR FS L-4 tires and Coal Bucket.

Bucket Type		**Coal**
Cutting Edge Type		**Spade**
Bucket Part No. (Group Level)		**241-9682**
Bucket Load at Rated Capacity	kg lb	31 752 70,000
Rated Capacity	m^3 yd^3	36.0 47.0
Struck Capacity – ISO	m^3 yd^3	30.0 39.5
Bucket Width – Overall	mm ft	6500 21.3
Clearance at 45° Dump (Tooth Tip)	mm ft	7296 23.9
Reach at 45° Dump (Tooth Tip)	mm ft	3400 11.2
Horizontal Arm and Level Bucket Reach	mm ft	7557 24.8
Digging Depth (Segment)	mm ft	339 1.1
Overall Length – Bucket Level Ground	mm ft	19 526 64.1
Overall Height	mm ft	14 372 47.2
Turning Radius – Corner SAE Carry	mm ft	14 262 46.8
Tipping Load – Straight	kg lb	88 277 194,617
Tipping Load – Straight*	kg lb	84 025 185,243
Tipping Load – Articulated 40°	kg lb	73 683 162,443
Tipping Load – Articulated 40°*	kg lb	66 451 146,499
Breakout Force – SAE Rated	kN lb-f	693.0 155,793
Operating Weight	kg lb	213 823 471,399

*With Tire Squash (58/85–57 @ 724 kPa/105 psi).

Standard Equipment

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

ELECTRICAL

- Alarm, back-up
- Alternator, dual 80 amp
- Batteries, dry
- Converter, 10/15 amp, 24V to 12V
- Lighting system (halogen, work lights, access and service platform lighting)
- HID work lights
- Starting and charging system, 24V
- Starter emergency start receptacle
- Starter lockout in bumper
- Transmission lockout in bumper

OPERATOR ENVIRONMENT

- Advisor 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, separate external rollover protective structure (ROPS/FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port
- Cigar lighter, ashtray
- Coat hook
- Controls, lift and tilt function
- Heater, defroster
- Horn, air
- 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
- Sun screen
- Seat, Cat Comfort (cloth), air suspension, six-way adjustable
- Seat, trainer with lap belt, 76 mm (3 in) wide
- Seat belt, retractable, 76 mm (3 in) wide
- STIC™ Control System
- 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

POWER TRAIN

- Brakes, oil-cooled, multi-disc, service/secondary
- Case drain filters
- Crankcase guard
- Driveline parking brake
- Engine, 3516B HD EUI (SCAC) 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
- Secondary steering
- 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

- Air tank, ECC compliant (EN286)
- Air line dryer
- Automatic bucket lift kickout/positioner
- Automatic lubrication system
- Base machine price includes a rim allowance
- Blower fan
- Couplings, Cat O-ring face seals
- Doors, service access (locking)
- Ecology drains for engine, radiator, hydraulic tank, steering and brake tank, and brake cooling tank
- Engine oil change system, high speed, Wiggins
- Fast fill fuel system (Shaw-Aero)
- Front walkway
- Fuel tank, 3833 L (1,013 gal)
- Hitch, drawbar with pin
- Hoses, Cat XT™
- Hydraulic, steering and brake filtration/screening system
- Mufflers (4)
- Oil sampling valves
- Premixed 50% concentration of extended life coolant with freeze protection to –34° C (–29° F)
- Rear access to cab and service platform
- Steering, load sensing
- Supplemental steering system
- Toe kicks
- Vandalism protection caplocks
- Wiggins Service Center

994H 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 renewal system
- Turbine precleaner
- Rockford radiator fan

ELECTRICAL

- LED warning strobes
- Power converter

OPERATOR ENVIRONMENT

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

MACHINE CONTROL AND GUIDANCE

- Cat Terrain ready

SPARE RIMS

- 914 mm (36") spare rim
- 1118 mm (44") spare rim
- 1194 mm (47") spare rim

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
- High
- Extended High
- Super High

STARTING SYSTEM
- Ingersoll Rand air start
- TDI air start
- Electric start

ELECTRICAL
- No Product Link
- Product Link (Satellite)

OPERATOR ENVIRONMENT
- Standard glass
- Rubber mounted glass

- Standard seat
- Heated 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
- 914 mm (36") (36×57)
- 1118 mm (44") (44×57)
- 1194 mm (47") (47×57)

Notes

994H 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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