

# 992G

## Wheel Loader



### Engine

Engine Model	Cat <sup>®</sup> 3508B DITA EUI	
Gross Power	656 kW	880 hp
Flywheel Power	597 kW	800 hp

### Operating Specifications

Rated Payload	21.8 tonnes	24 tons
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### Buckets

Bucket Capacities	11.5-12.3 m <sup>3</sup>	15-16 yd <sup>3</sup>
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# 992G Wheel Loader

*A new standard for wheel loader productivity, serviceability and styling.*

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## Structures and Cast Box Boom

Articulated frame design features high-torsion, load-absorbing, front frame and large, modulus, box-section, engine-end frame. Cast box boom and linkage geometry offers greater dump clearance, breakout force and visibility to the bucket and target. **pg. 4**

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## Power Train

Designed for durability, the Caterpillar® planetary power shift transmission and impeller clutch torque converter provide smooth, consistent shifting with finger tip control. Electronic controls contribute to increased levels of productivity. **pg. 6**

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## Hydraulics and Electronic Monitoring

The 992G's hydraulic efficiency gives you better lift and tilt cycle times for a better overall cycle time. Innovative electro-hydraulics play a key role in performance of the 992G and provide low operator effort. **pg. 8**

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## Application Truck Match

Increased performance and good pass matching make the 992G a versatile performer. **pg. 14**

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## Serviceability

- ✓ Perform maintenance jobs with easy access to major service points such as oil levels and fills, grease fittings, sight gauges, filters and electrical breakers. A diagnostic connector allows quick electronic analysis. Improved access to the hydraulic valve and a reduction in connections also enhance serviceability. AutoLube is standard. **pg. 15**

*Innovative performance you can feel.  
The 992G is a revolutionary advancement in large wheel loader design, providing a 22 metric ton (24 ton) payload for the most demanding applications.*





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### Operator Station

- ✓ Experience a new level of efficiency and comfort with one-hand operation provided by the STIC controller, finger tip bucket controls, excellent range of viewing, improved ventilation and easier entry and exit. **pg. 10**

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### Buckets and Ground Engaging Tools

Choose from a variety of 11.5 m<sup>3</sup> to 12.3 m<sup>3</sup> (15-16 yd<sup>3</sup>) capacity buckets, spade-edge buckets and heavy duty mining buckets with various Ground Engaging Tools to match job conditions. Replaceable wear plates on the bucket heel protect the bottom of the buckets. **pg. 12**

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### Bucket Match

Correct bucket and application match contribute to increased productivity. **pg. 13**

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### Complete Customer Support

Your Cat dealer is your one safe source for all your equipment needs. They offer a wide range of services that will fit your operation and keep you working longer with lower cost. **pg. 16**



✓ *New Feature*

## Structures and Cast Box Boom

*Superior design of structures, along with bold, new cast-steel, box section front linkage, provide superior strength.*



**Structures.** On the 992G, combine the use of robotic welding and castings in critical high-stress areas. More than 90 percent of the 992G structure is robotically welded to provide highly consistent welds and increased strength. Castings are also used in several areas to increase strength by helping to spread the loads and reduce the number of parts.

**Full Box-Section Frame.** Has been redesigned for increased strength. (1) Internal and external members have been added to the rails in critical sections.

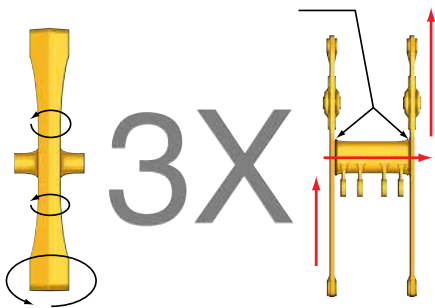
**Box-Shaped Cylinder Tower.** Is designed for improved resistance to twisting for maximum strength. (2) The tilt cylinder tower high-strength steel plates direct stress down to the cast tube, absorbing impact and loading forces. This design results in a narrower tower which gives better operator visibility.

**Upper and Lower Hitch-Pins.** Pivot on a double-tapered roller bearing. (3) The upper hitch plate thickness has been increased and the lower hitch plate has been extended to improve transition to the rail assembly.

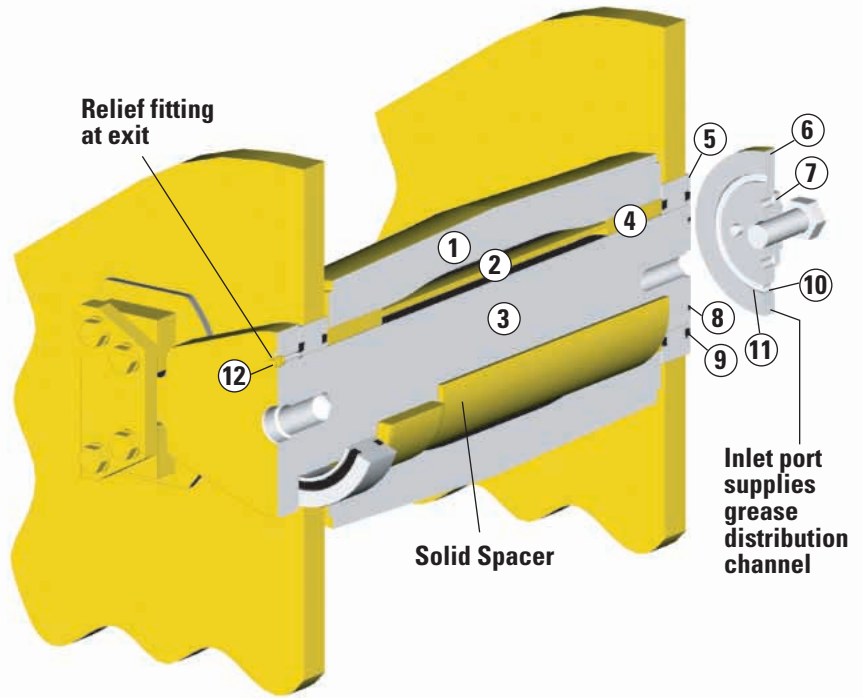
**Spread-Hitch Design.** Helps to square up the frame while providing increased clearance for access to the hitch and hydraulic lines. (4)

**Steering Cylinder Mounts.** Are located on the outboard side of the front frame to increase component clearances and structural strength, while improving serviceability. (5)

**Linkage Pins.** Are grease lubricated and periodically relubricated as the machine operates by the standard autolube system. The linkage joint seals have a metal core that protects the seal during normal bending and flexing that occurs while loading.



**Cast Box Boom Box-Section Design.** Delivers three times the torsional loading stiffness of the previous design. (6) With the parallel lift arm design, corner loading the bucket sent stresses up the lift arm, through the cross tube welding and up the other lift arm. The box-section design spreads stresses over the full length and perimeter of the cast box boom, allowing stress transfer through parent material. This resists twisting and prevents stress paths that can lead to cracking.



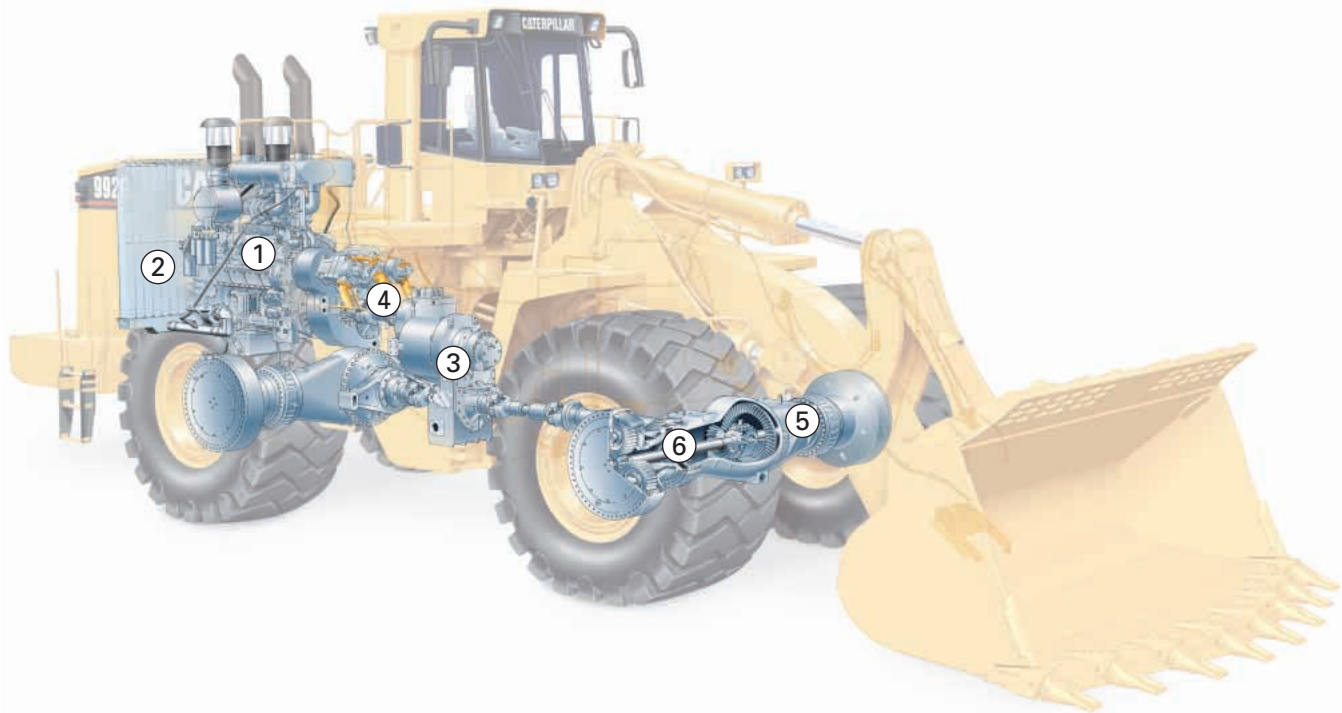
**Grease-Filled Linkage Joint.**

- |                  |                                |
|------------------|--------------------------------|
| 1 Boom assembly  | 7 Dowel                        |
| 2 Spacer         | 8 O-ring seal                  |
| 3 Pin assembly   | 9 Seals (4)                    |
| 4 Bearings (2)   | 10 Inlet port                  |
| 5 Collars (2)    | 11 Grease distribution channel |
| 6 Cover assembly | 12 Relief fitting              |



## Power Train

*Cat power train delivers top performance and durability in tough applications.*

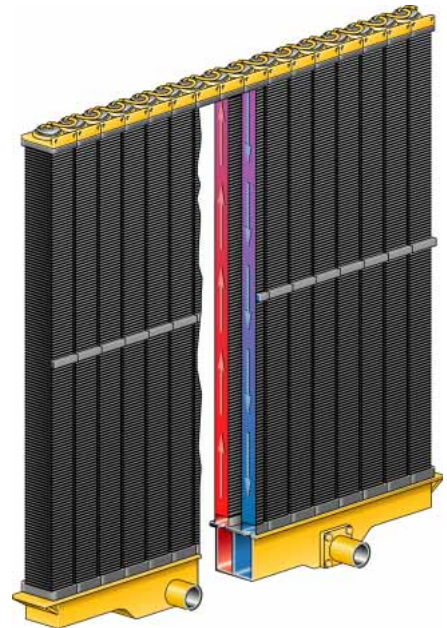


**Cat 3508B DITA Diesel Engine.** Is a four-stroke design and uses long, effective power strokes for more complete fuel combustion and optimum efficiency. (1) The 3508B is designed with large displacement and a low speed rating for long hours of service between scheduled overhauls and lower operating costs.

• **30 Percent Torque Rise.** Provides high lugging force during digging and acceleration in high rimpull conditions. The torque curve effectively provides maximum efficiency and faster cycle times.

• **Electronic Unit Injection (EUI).** Is a proven high-pressure, direct injection fuel system that electronically monitors operator demands and sensor inputs to optimize engine performance.

• **ADEM™ II (Advanced Diesel Engine Management) System.** Controls the fuel injector solenoids to start and stop fuel injection. This system provides automatic altitude compensation, air filter restriction indication, and will not allow the engine to fire until it has oil pressure, acting as a cold start protection and a form of pre-lube.



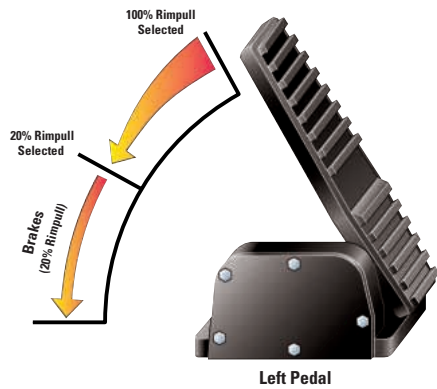
### **Separate Engine Cooling System.**

Isolates the radiator and fan from the engine compartment providing lower sound levels, more efficient cooling and a sloped hood for increased viewing. (2)

- **Advanced Modular Cooling System (AMOCS).** Improves cooling capabilities by using a parallel flow system with 16 cores. Serviceability is improved with AMOCS as there is no top tank to remove and the radiator guard does not have to be tilted to remove the cores.

- **Separate Circuit Aftercooling (SCAC).** Dedicates six of the radiator's cores to the independent aftercooler circuit. This allows the aftercooler circuit to operate cooler resulting in denser air charge and reduced emissions.

**Caterpillar® Planetary, Power Shift Transmission.** Features perimeter-mounted, large diameter clutch packs that control inertia for smooth shifting and increased component life. (3) The electronically controlled transmission enhances productivity, durability and serviceability. Planetary is 533 mm (21 in) with three speeds forward and reverse.



**Impeller Clutch Torque Converter (ICTC).** Combined with the Rimpull Control System (RCS) allows the operator maximum flexibility in modulating rimpull. (4)

- Improved calibration procedure.
- Improved left pedal modulation.

- Compensates for wear by providing the ability to recalibrate for optimum left pedal modulation regardless of torque converter wear.
- The impeller clutch torque converter uses the left brake pedal to modulate rimpull from 100 to 20 percent for reduced tire slippage. After 20 percent is achieved, further pedal travel applies the brake.
- Rimpull Control System (RCS) allows the operator to select from four preset maximum rimpull settings available in first gear (90, 85, 75 and 65 percent).
- A lock-up clutch torque converter and free wheel stator feature are also available as optional attachments.

- **Final Drives.** Feature planetary reduction at each wheel. Torque is developed at the wheel, which gives less stress at the axle shafts. The planetary units can be removed independently from the wheels and brakes.

**Heavy Duty Axles.** Feature standard axle oil coolers, permanently lubed universal joints and stronger axle components in both the differentials and final drives for increased performance, serviceability and durability. (5) Conventional differential is standard.

- **Free Floating Axle Shafts.** Can be removed independent of the wheels and planetaries for quick and easy serviceability.

- **Axle Oil Cooling System.** Circulates oil from the brakes and differentials through an oil-to-air cooler providing increased oil life while extending component performance and durability.

**Oil-Enclosed, Multiple-Disc Brakes.**

Are adjustment-free with fewer parts for improved serviceability. (6) Fully hydraulic actuators with independent front and rear circuits use separate accumulators and new valves for increased performance and reliability.

- Location of the brakes improves serviceability. The axle-shaft brake design allows brake service while leaving the final drive intact.
- Axle shaft brakes require less force by operating on the low torque side of the axle. Combined with improved axle oil circulation for increased cooling, the oil-enclosed, multiple-disc brake design improves durability.
- Parking brake is spring-applied, oil-released and dry disc. It is mounted on the transfer gear output shaft. Manual override is possible to allow movement of the machine.

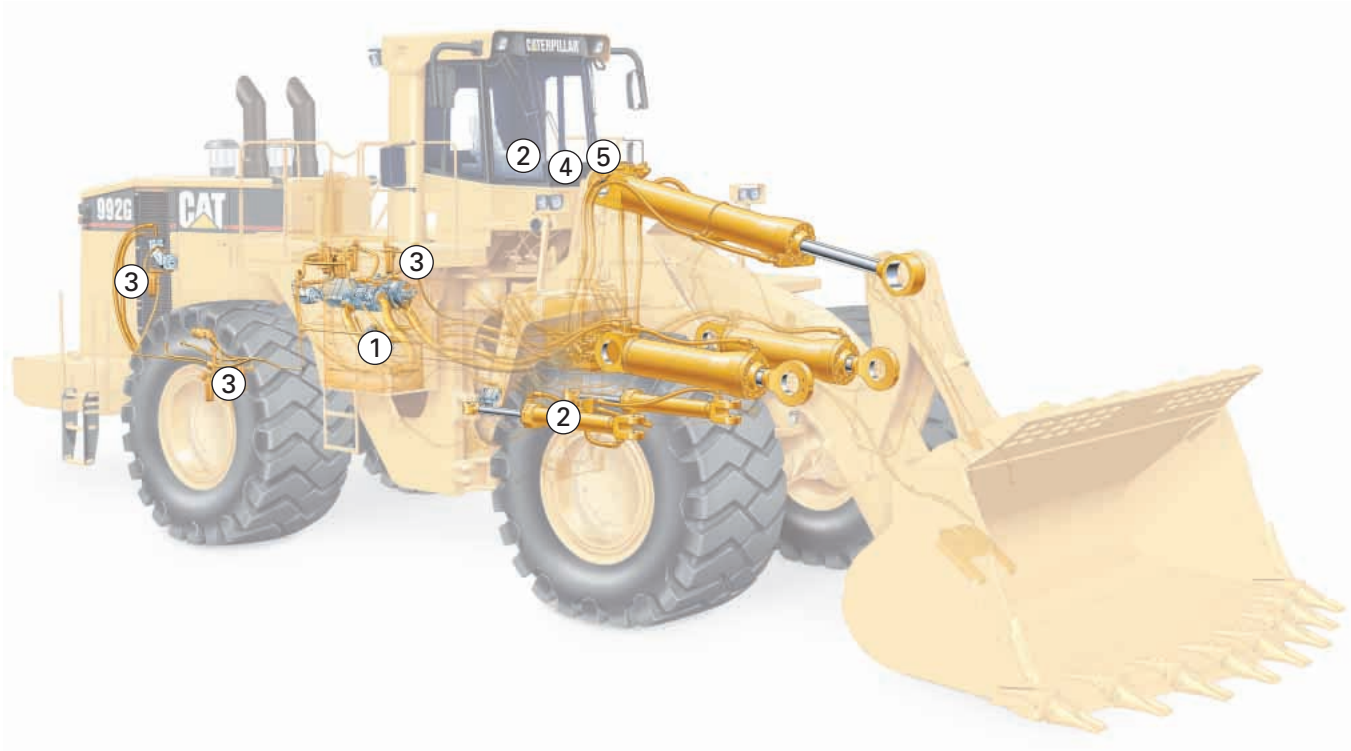
- **Secondary Brakes.** Electronic Monitoring System alerts operator if pressure drops and automatically applies the parking brake.

- **Service Brakes.** Are four wheel, hydraulic, oil-cooled multiple disc brakes that are adjustment-free, completely enclosed and allow modulated engagement without slack adjusters.

**Power Train Filters.** Are top removal-type to reduce the possibility of spilling oil during replacement.

## Hydraulics and Electronic Monitoring

*Precise, low-effort control and trouble-free operation of well balanced hydraulics, combined with electronic controls and machine diagnostics, provide optimized performance and durability.*



**Revolutionary Electro-Hydraulic Control System.** Uses separate hydraulic circuits for the lift/tilt/engine fan and steering/brake control. The benefits of the separate hydraulic systems are increased cooling and elimination of cross-contamination. XT-3™ and XT-5™ hose and reliable components help reduce the risk of leaks and blown lines, helping protect the environment.

**Lift and Tilt System.** Consists of large bore lift and tilt cylinders and a combination of variable and fixed displacement pumps contributing to increased performance and serviceability.

- **Variable Displacement Pump.**

Is controlled by the Electronic Control Module (ECM). A solenoid valve controls the torque settings allowing the ECM to vary the hydraulic load felt by the engine. This strategy results in faster hydraulics and greater lift forces leading to optimized performance.

- **Fixed Displacement Hydraulic Pump.**

Performs with high efficiency and great reliability. For improved serviceability, all hydraulic pumps are mounted on a single pump drive.



**Load Sensing Steering with STIC Control System.** Integrates steering and transmission into a single controller. (2) The steering system utilizes a variable displacement pump for maximum machine performance by directing power through the steering system only when needed.

**Case Drain Filtration.** Is included throughout the hydraulic system to protect against contamination. (3) Easily accessed for serviceability, eight filters in total protect the hydraulic pumps, fan motor and axle oil cooler circuit.

- Optional high pressure screens are available as an upgrade to the case drain filtration package. This Deluxe Filtration package places high pressure screens on the output side of the hydraulic pumps and fan motor, further protecting the hydraulic system from contamination.

**Electronic Controls and Machine Diagnostics.** Provide optimized performance, durability and serviceability resulting in increased productivity and lower cost.



**Vital Information Management System (VIMS).** Is now standard. This system is a user friendly display system that provides operators and service technicians with information on the machine's major components and systems. (4) In the event that a problem occurs on the machine, the VIMS system gives pertinent information that leads to a more accurate diagnosis and a reduction of overall downtime.

- Supported by two languages (English and any one of 14 others), a 40 character text display instantly communicates machine problems and provides step-by-step service instructions for calibrations, option selection and adjustable settings.
- VIMS also includes machine management information with the capabilities of tracking, downloading and creating summary reports.
- **Payload Control System.** Is integrated into VIMS, and offers on-the-go weighing to provide accurate payload measurements without slowing the operator.
- **Case Drain Filtration Monitoring.** Alerts operator if filters become restricted.

## Operator Station

*Comfort and control — efficient operator station will help maximize productivity.*





**Spacious Cab Design.** Incorporates innovations for operator comfort, maneuverability and productivity. Features include outstanding viewing area, excellent cab ventilation, interior sound levels below 75 dB(A), standard coat hook, cup holder, storage bin, intermittent wet-arm wipers, room for a large lunch cooler and radio-ready.

**STIC Control System.** Provides a fluid motion that reduces effort and allows the operator to work the machine for long periods of time with little or no fatigue. (1) Simple side-to-side motions of the operator's left arm turn the machine right or left. Transmission shifting forward, neutral and reverse is controlled by the operator's fingers and gear selection is controlled by the operator's thumb.

**Left Pedal.** Operates impeller clutch torque converter. (2)

**Comfort Series Seat.** With air suspension and retractable seat belt is designed for comfort and support. (3) Seat cushions reduce pressure on the lower back and thighs while allowing unrestricted arm and leg movement. The seat is six-way adjustable and the retractable seat belt remains off the floor and is easy to reach for the operator. Armrests are height and tilt adjustable.

**Floor Mounted Electro-Hydraulic Controls and Armrests.** Provide low effort, finger tip control for enhanced comfort and stability. (4)

- Controls and arm rests are fore, aft and height adjustable to accommodate operators of any size in a comfortable operating position.
- Levers send electrical signals to a pilot valve that controls movement of the linkage and bucket.

**Vital Information Management System (VIMS).** Is the standard display system that provides information on the machine's major components and systems. (5) (6)

- Gauge displays fuel tank level and temperatures for engine coolant, power train and hydraulic oil.
- Tachometer is an analog gauge with digital readout for gear selection.

The Payload Control System is included in VIMS.



**Automatic Kickouts.** For lift, lower and bucket tilt are adjustable electronically from the cab. (7)

**Throttle Lock.** Allows the operator to preset the engine speed, resulting in faster cycle times and increased productivity. (8)

**Rimpull Control System Switch.** Turns RCS on and off. (9)

**Rimpull Control System (RCS).** Has four factory preset reduced rimpull settings (90, 85, 75 and 65 percent of rimpull). (10)

**Programmable Top Gear.** Limits top gear and can be activated through Cat Electronic Technician.

**Optional Ride Control Switch.** Turns Ride Control on and off. (11)

• **Optional Ride Control.** Provides a boom suspension system by placing accumulators in the boom circuit, reducing fore and aft pitch over terrain. This results in a smoother, more comfortable ride allowing higher load and carry speeds, increased load retention and component life.

**Quick Shift Feature.** Allows quicker cycle times by automatically shifting from first forward to second reverse. (12)

**Viewing Area.** Bonded glass in the front window eliminates distracting metal frames and the narrow loader boom and single tilt cylinder provide excellent operator visibility to the bucket. (13)

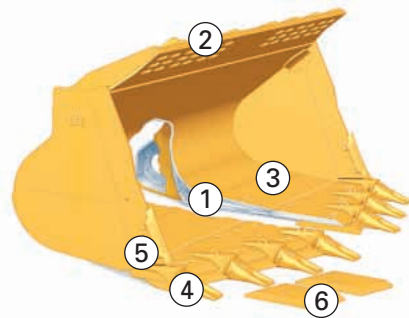
• **AutoLube Control.** Is now part of VIMS. The system injects grease at preselected intervals or the operator can manually inject grease if necessary.



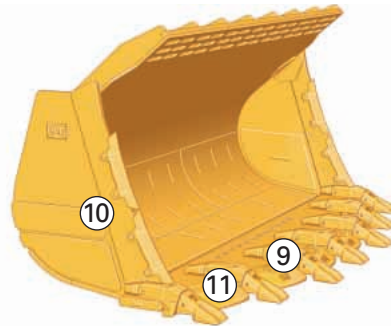
## Buckets and Ground Engaging Tools

*Caterpillar buckets and Ground Engaging Tools (GET) provide the flexibility to match the machine to your application.*

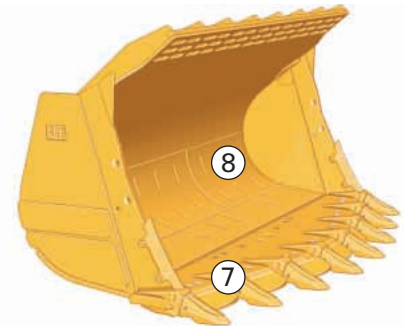
**Buckets.** Ranging in size from 11.5 m<sup>3</sup> (15.0 yd<sup>3</sup>) to 12.3 m<sup>3</sup> (16 yd<sup>3</sup>), buckets may be configured for a variety of impact and abrasive conditions. Additional bucket sizes are available depending on applications. All buckets are built with shell-tine construction (1) that resists twisting and distortion and feature replaceable, weld-on wear plates to protect the bottom of the bucket. Integral rock guard (2) helps retain big loads while standard floor liners (3) and heavy-duty pins and retainers (4) provide durability.



**Spade-Edge Rock Buckets with Bolt-On Segments.** Are available in 11.5 m<sup>3</sup> (15.0 yd<sup>3</sup>) and 12.3 m<sup>3</sup> (16.0 yd<sup>3</sup>) sizes. Each accepts up to two sets of sidebar protectors (5), features shouldered, double-strap adapters, easily changed bolt-on segments (6) and several tip options to provide good performance and serviceability.



**Heavy-Duty Quarry Bucket.** Is available as a 11.5 m<sup>3</sup> (15.0 yd<sup>3</sup>) capacity bucket and is recommended for use in face loading where moderate abrasion and high impact is encountered. (3) This bucket features additional wear protection items, including: thicker base edge and adapters (9), additional liners and wear plates (10), bolt-on half arrow segments (11) and four sidebar protectors.



### **High Abrasion Mining System.**

Is available as a 12.0 m<sup>3</sup> (15.5 yd<sup>3</sup>) capacity bucket. The system features independently attached edge and adapter covers (7), one set of sidebar protectors and half radius liners (8). The heavy-duty mining system is recommended for high-abrasion in low to moderate impact conditions. Pin-on wear components reduce down-time associated with changing GET components.

**Mechanically Attached Wear Plates (MAWP).** Are available as a custom shop option.

**Bucket Controls.** Feature electro-hydraulic lift and tilt circuits for lower lever effort.

**Lift Circuit.** Has four positions: raise, hold, lower and float and can adjust automatic upper and lower kickouts from the cab.

**Tilt Circuit.** Features three positions: tilt back, hold and dump. It can adjust automatic bucket positioner to desired loading angle from the cab and does not require visual spotting.

## Bucket Match

*Proper bucket and application match delivers increased stability and performance.*

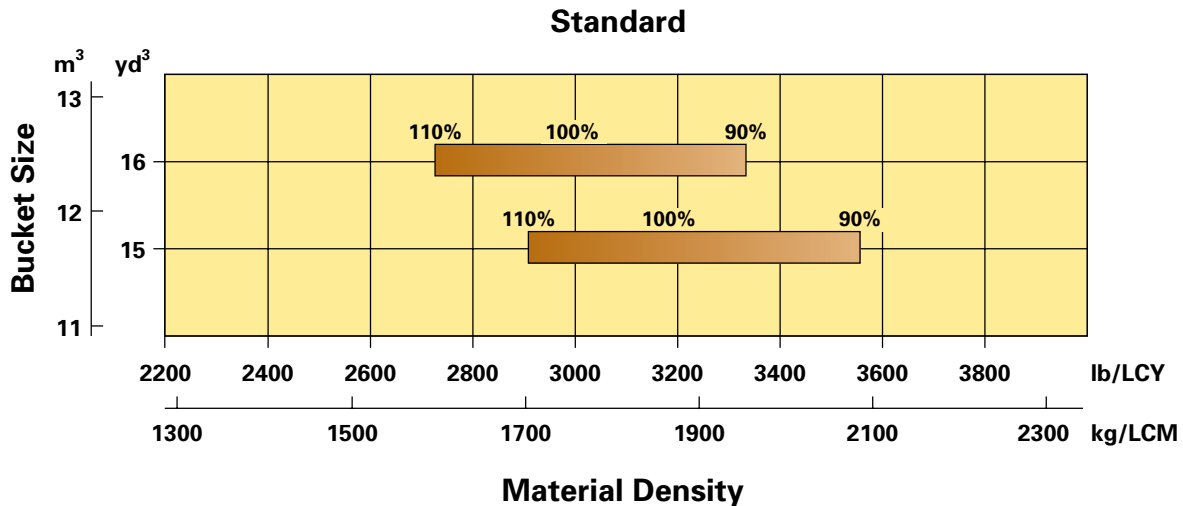
**Buckets and GET.** The 992G offers a variety of bucket sizes and available Ground Engaging Tool configurations to properly configure the machine based on material density, impact and abrasion.

Depending on your material densities, the 992G has available a 11.5 m<sup>3</sup> (15 yd<sup>3</sup>) Spade Nose bucket with bolt-on segments for improved performance and increased stability.

Increased full turn static tip load, horsepower and hydraulic capabilities allow the 992G to effectively utilize the 12.3 m<sup>3</sup> (16 yd<sup>3</sup>) bucket size in lighter materials such as limestone. All buckets on the 992G feature the well proven shell-tine construction.

## Bucket Selection Guide and Matrix

*Rated payload 21.8 metric tons (24 tons)*

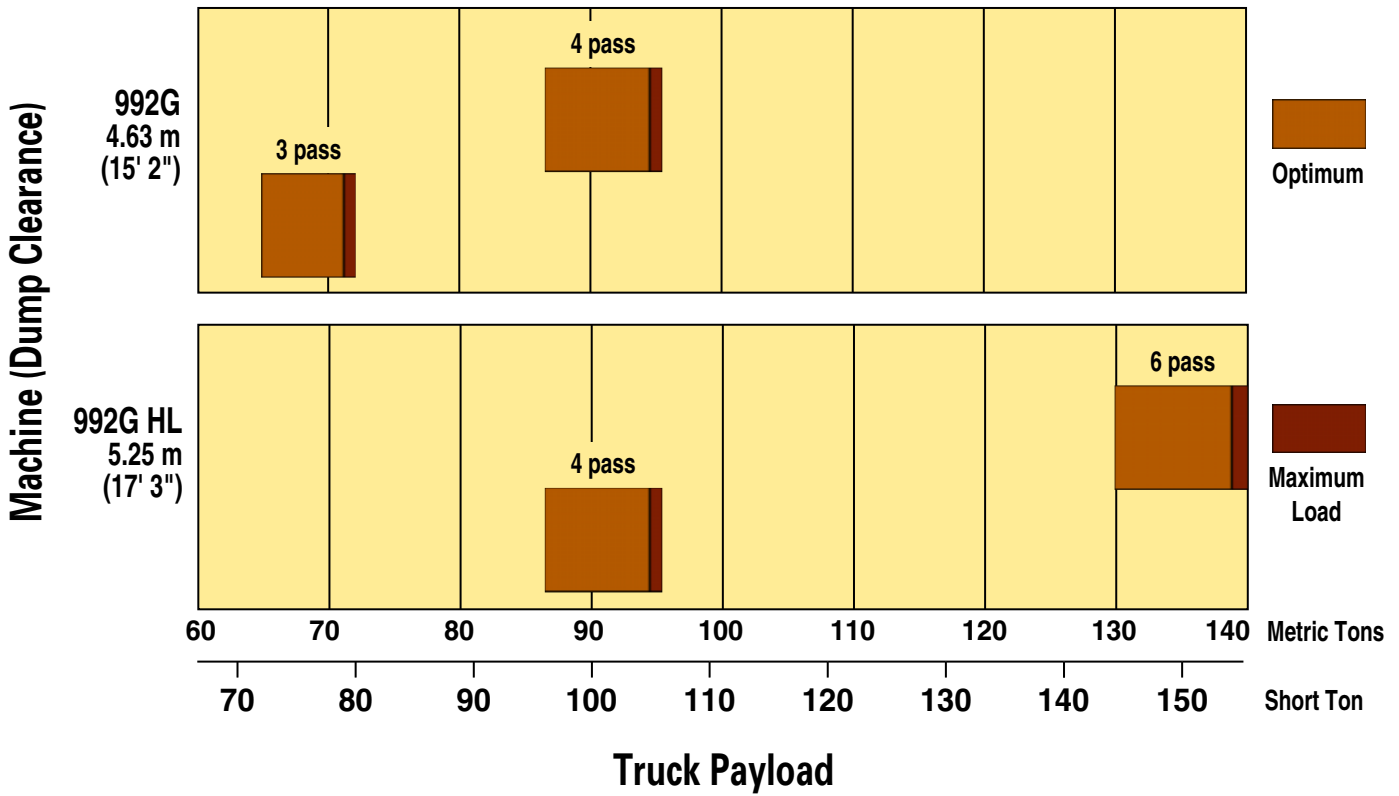


Note: Percentages shown represent bucket fill factor

Changes in bucket weight, including field installed wear iron, can impact rated payload. Consult your Caterpillar dealer for assistance in selecting and configuring the proper bucket for the application. The Caterpillar Large Wheel Loader Payload Policy is a guideline intended to maximize wheel loader structural and component life.

# Application Truck Match

*Matched payloads and matched buckets ensure optimum performance.*



**Performance.** The 992G is an aggressive first gear loader for face and bank excavation. With increased dump clearance, the 992G can easily load off-highway, 90 metric tons (100 ton) trucks in four passes. The 992G HL is an excellent six-pass match for 136 metric tons (150 tons) off highway trucks. Increased performance and good pass match make the 992G a versatile performer with a cost per ton that will help your bottom line.

We also designed the versatility of a material handler into the machine. With balanced rimpull and hydraulics and a full match torque converter, the 992G is an aggressive second gear loader in loose or stock-pile material and in load and carry work.

The Cat 777D has a 91 metric ton (100 ton) maximum payload. The Cat 785C has a 136 metric ton (150 ton) maximum payload.



## Serviceability

*Less time spent on maintenance gives you more time on the job.*



**Maintenance and Repair.** Is easier through monitoring key functions and logging critical indicators. Electronic diagnostic access is possible with a single tool, the Electronic Technician. In addition to the servicing features built into the engine, the 992G includes:

- **Advanced Modular Cooling System.** Is easier to clean and maintain because it is isolated from the engine compartment.

- **U-joints.** Are lifetime lubricated, leaving the slip joint as the only drive line component needing grease.
- **Fuel.** Fuel fill is located in left hand bumper and accessible from ground level, making fuel service quicker and easier.

- **Swing-Out Doors.** On both sides of the engine compartment provide easy access to the engine oil dipstick and filler spout, fuel filters, air conditioner compressor, engine oil filters, alternator, starting receptacle, air filter service indicator, coolant fill and ether starting aid.

- **Hinged Doors.** In platform provide access to the hydraulic tank fill, implement and steering filters. Transmission dipstick and filler spout are serviced from the hitch area.

- **Case Drain Filters.** Are easily accessible for serviceability and are monitored by the optional VIMS system. For additional protection, high pressure screens are available as an optional attachment.

- **Batteries.** Sit in a built-in battery box and are accessible through tread plates on the platform.

- **Shock Resistant Lights.** Are replaceable by hand, not requiring the use of any tools. Brake lights are now LED.

- **Standard AutoLube.** For the linkage, hitch and steering pins, as well as the axle trunnions. The AutoLube tank is located on the platform just behind the cab.

- **Vital Information Management System.** Provides operators and service technicians with vital diagnostic information on the machine's major components and systems.

- **Diagnostic Connector.** Enables quick evaluation of 11 starting and charging functions. The diagnostic connectors are located on the bumper near the operator side rear access ladder and in the cab.

## Complete Customer Support

*Cat dealer services help you operate longer with lower costs.*

**Machine Selection.** Make detailed comparisons of the machines under consideration before purchase. Cat dealers can estimate component life, preventative maintenance cost and the true cost of lost production.

**Purchase.** Look past initial price. Consider the financing options available as well as the day-to-day operating costs. Look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

**Customer Support Agreements.** Cat dealers offer a variety of product support agreements and work with customers to develop a plan that best meets specific needs. These plans can cover the entire machine, including work tools, to help protect the customer's investment.

**Product Support.** You will find nearly all parts at our dealer parts counter. Cat dealers use a world-wide computer network to find in-stock parts to minimize machine down time. Save money with genuine Cat Remanufactured parts. You receive the same warranty and reliability as new products at cost savings of 40 to 70 percent.

**Operation.** Improving operating techniques can boost your profits. Your Cat dealer has training videotapes, literature, application and equipment training courses and other ideas to help you increase productivity.



**Maintenance Services.** More and more equipment buyers are planning for effective maintenance before buying equipment. Choose from your dealer's wide range of maintenance services at the time you purchase your machine. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S•O•S<sup>SM</sup> and Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.

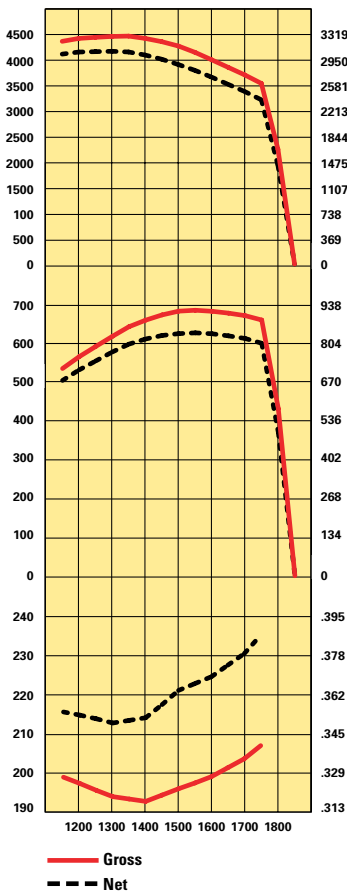
**Replacement.** Repair, rebuild or replace? Your Cat dealer can help you evaluate the cost involved so you can make the right choice.



## Engine

Engine Model	Cat 3508B DITA EUI	
Gross Power	656 kW	880 hp
Flywheel Power	597 kW	800 hp
Net Power – Caterpillar	597 kW	800 hp
Net Power – EEC 80/1269	597 kW	800 hp
Net Power – ISO 9249	597 kW	800 hp
Net Power – SAE J1349	590 kW	791 hp
Net Power – DIN 70020	829 PS	
Gross Power – ISO 3046-2	656 kW	880 hp
Bore	170 mm	6.7 in
Stroke	190 mm	7.5 in
Displacement	34.5 L	2,105 in <sup>3</sup>
Torque Rise	30%	

- These ratings apply at 1750 rpm when tested under the specific standard conditions for the specified standard.
- Power rating conditions based on standard air conditions of 25° C (77° F) and 99 kPa (29.32 in Hg) dry barometer, using 35° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 30° C (86° F) [ref. a fuel density of 838.9 g/L (7.001 lb/gal)].
- Net power advertised is the power available when the engine is equipped with alternator, air cleaner, muffler and hydraulic fan drive.
- No derating required up to 3050 m (10,000 ft) altitude.
- Direct-electric 24-volt starting system with 100-amp alternator and four 190-amp-hour, low-maintenance, high-output, 12-volt batteries.



## Operating Specifications

Rated Payload	21.8 tonnes	24 tons
Operating Weight	94 927 kg	209,278 lb

## Transmission

Converter Drive – Forward 1	6.6 kph	4.1 mph
Converter Drive – Forward 2	11.5 kph	7.1 mph
Converter Drive – Forward 3	19.9 kph	12.4 mph
Converter Drive – Reverse 1	7.3 kph	4.5 mph
Converter Drive – Reverse 2	12.6 kph	7.8 mph
Converter Drive – Reverse 3	22 kph	13.6 mph
Direct Drive – Forward 1	Lock-up disabled	
Direct Drive – Forward 2	12.4 kph	7.7 mph
Direct Drive – Forward 3	21.8 kph	13.5 mph
Direct Drive – Reverse 1	7.7 kph	4.8 mph
Direct Drive – Reverse 2	13.6 kph	8.5 mph
Direct Drive – Reverse 3	24 kph	14.9 mph

- Travel speeds based on two percent rolling resistance and 45/65-45 tires in converter drive.
- Travel speeds based on two percent rolling resistance and 45/65-45 tires in direct drive.

## Hydraulic Cycle Time

Raise	9.12 Seconds
Dump	3.26 Seconds
Lower Float Down (Empty)	3.47 Seconds
Total Hydraulic Cycle Time	15.85 Seconds

## Service Refill Capacities

Fuel Tank	1562 L	413 gal
Crankcase	102 L	26.5 gal
Transmission	169 L	44.6 gal
Differentials and Final Drives – Front	345 L	91 gal
Differentials and Final Drives – Rear	326 L	86 gal
Hydraulic System – Steering and Engine Cooling Fan	231 L	60 gal
Hydraulic System – Steering and Engine Cooling Fan (tank only)	159 L	41.3 gal
Hydraulic System (factory fill) Implement and Brakes	646 L	168 gal
Hydraulic System (tank only)	326 L	84.8 gal



## Buckets

Bucket Capacities	11.5-12.3 m <sup>3</sup>	15-16 yd <sup>3</sup>
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## Axles

Maximum Single-Wheel Rise and Fall	630 mm	24.8 in
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- Fixed front, oscillating rear  $\pm 10^\circ$ .

## Brakes

Brakes	Meets SAE J1473 OCT90 and ISO 3450: 1992
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## Cab

Sound Performance	Meets ANSI/SAE and ISO requirements
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- Caterpillar cab with separate Rollover Protective Structure/ Falling Object Protective Structure (ROPS/FOPS) is standard in North America, Europe and Japan.
- Standard air conditioning system contains environmentally friendly R134a refrigerant.
- ROPS meets SAE J394, SAE J1040 APR 88, ISO 3471-01: 1986 and ISO 3471: 1994 criteria.
- FOPS meets SAE J231 JAN 81 and ISO 3449: 1992 Level II criteria.
- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 75 dB(A), for the cab offered by Caterpillar, when properly installed, maintained and tested with the doors and windows closed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.
- The exterior sound pressure level for the standard machine measured at a distance of 15 m (49.2 ft) according to the test procedures specified in SAE J88 JUN86, mid-gear-moving operation, is 82 dB(A).
- The sound power level is 116 dB(A) measured according to the dynamic test procedure and conditions specified in ISO 6395:1988/Amd. 1:1996 for a standard machine configuration.

## Steering

Steering	Meets SAE and ISO standards.
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Total Steering Angle	86°
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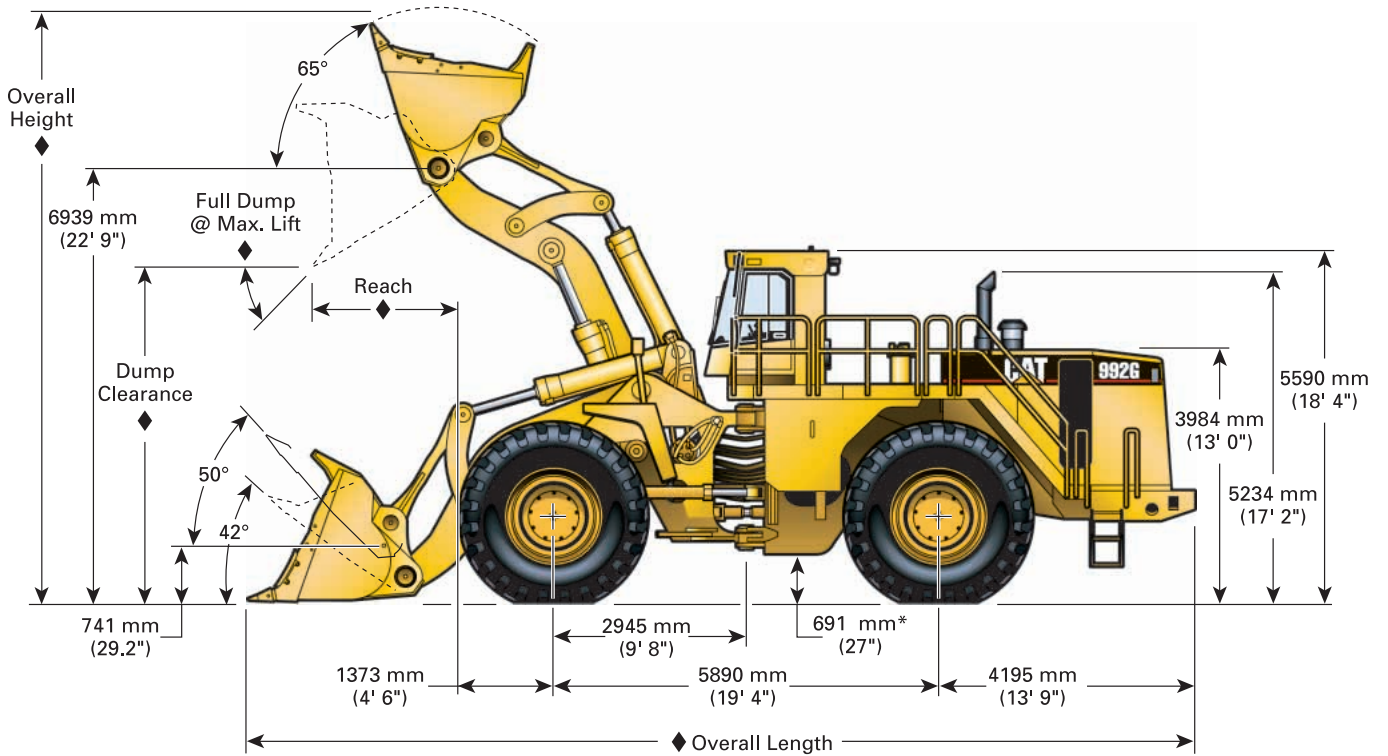
- Full hydraulic, load-sensing steering system meets SAE J1511 FEB94 and ISO 5010: 1992 specified standards.
- Center point frame articulation.
- Front and rear wheel track.

## Loader Hydraulic System

Relief Valve Setting	31 000 kPa	4,500 psi
Cylinders, Double Acting: Lift, Bore and Stroke	279.4 mm × 1173 mm	11.0 in × 46.2 in
Cylinder, Double Acting: Tilt, Bore and Stroke	279.4 mm × 1816 mm	11.0 in × 71.5 in
Relief Valve Setting (low idle)	2500 kPa	363 psi

# Dimensions

All dimensions are approximate.



\* Measured with standard 45/65-45, 46 PR(L5) tires

# Operation/Bucket Specifications

		Standard Spade Edge		Large Spade Edge		Heavy-duty Quarry		High Abrasion		
		Teeth & Segments		Teeth & Segments		Teeth & Segments		Teeth		
		Std.	Hi-Lift	Std.	Hi-Lift	Std.	Hi-Lift	Std.	Hi-Lift	
Rated capacity (§)	m <sup>3</sup>	11.5	11.5	12.2	12.2	11.5	11.5	11.5	11.5	
	yd <sup>3</sup>	15.0	15.0	16.0	16.0	15.0	15.0	15.0	15.0	
Struck capacity (§)	m <sup>3</sup>	9.45	9.45	10.1	10.1	9.45	9.45	9.45	9.45	
	yd <sup>3</sup>	12.36	12.36	13.2	13.2	12.4	12.4	12.36	12.36	
Width (§)	mm	4824	4824	4824	4824	4824	4824	4840	4840	
	ft/in	15' 10"	15' 10"	15' 10"	15' 10"	15' 10"	15' 10"	15' 11"	15' 11"	
Dump clearance at full lift and 45° discharge.	<b>With teeth*:</b>	mm	4626	5250	4626	5250	4557	5182	4602	5227
		ft/in	15' 2"	17' 3"	15' 2"	17' 3"	14' 11"	17' 0"	15' 1"	17' 2"
	<b>Bare (§):</b>	mm	4993	5607	4993	5607	4993	5607	4993	5607
		ft/in	16' 5"	18' 5"	16' 5"	18' 5"	16' 5"	18' 5"	16' 5"	18' 5"
Reach at full lift and 45° discharge.	<b>With teeth*:</b>	mm	2315	2304	2315	2304	2364	2354	2391	2381
		ft/in	7' 7"	7' 7"	7' 7"	7' 7"	7' 9"	7' 9"	7' 10"	7' 10"
	<b>Bare (§):</b>	mm	1732	1720	1732	1720	1732	1720	1732	1720
		ft/in	5' 8"	5' 8"	5' 8"	5' 8"	5' 8"	5' 8"	5' 8"	5' 8"
Reach with boom – horizontal and bucket level.	<b>With teeth*:</b>	mm	5110	5590	5110	5590	5192	5673	5181	5661
		ft/in	16' 9"	18' 4"	16' 9"	18' 4"	17' 0"	18' 7"	17' 0"	18' 7"
	<b>Bare (§):</b>	mm	4177	4657	4177	4657	4177	4657	4177	4657
		ft/in	13' 8"	15' 3"	13' 8"	15' 3"	13' 8"	15' 3"	13' 8"	15' 3"
Digging depth (§)	mm	165	161	165	161	180	177	155	152	
	in	6"	6"	6"	6"	7"	7"	6"	6"	
Overall length	<b>With teeth*:</b>	mm	15 585	16 175	15 585	16 175	15 604	16 194	15 636	16 226
		ft/in	51' 2"	53' 1"	51' 2"	53' 1"	51' 2"	53' 2"	51' 4"	53' 3"
	<b>Bare:</b>	mm	15 143	15 733	15 143	15 733	15 143	15 733	15 143	15 733
		ft/in	49' 8"	51' 7"	49' 8"	51' 7"	49' 8"	51' 7"	49' 8"	51' 7"
Overall height with bucket at full raise (§)	mm	9415	10 035	9415	10 035	9415	10 035	9415	10 035	
	ft/in	30' 11"	32' 11"	30' 11"	32' 11"	30' 11"	32' 11"	30' 11"	32' 11"	
Loader clearance circle with bucket in carry position.	<b>With teeth*:</b>	mm	22 272	22 876	22 272	22 876	22 272	22 875	22 310	22 918
		ft/in	73' 1"	75' 1"	73' 1"	75' 1"	73' 1"	75' 1"	73' 2"	75' 2"
	<b>Bare (§):</b>	mm	21 882	22 464	21 882	22 464	21 882	22 464	21 942	22 512
		ft/in	71' 9"	73' 8"	71' 9"	73' 8"	71' 9"	73' 8"	72' 0"	73' 10"
Static tipping load straight †	kg	60 292	58 693	60 091	58 488	59 226	57 552	58 164	56 620	
	lb	132,921	129,396	132,478	128,944	130,591	126,880	128,230	124,826	
Static tipping load at full 40° turn	kg	52 541	50 720	52 303	50 477	51 424	49 534	50 442	48 673	
	lb	115,833	111,818	115,308	111,283	113,370	109,204	111,205	107,306	
Static tipping load at full 43° turn	kg	51 392	49 538	51 149	49 289	50 267	48 346	49 297	47 494	
	lb	113,300	109,213	112,764	108,664	110,820	106,585	108,681	104,706	
Breakout force †† (§)	kN	615	602	612	599	595	583	591	578	
	lb	138,360	135,421	137,692	134,753	133,783	130,957	132,804	129,921	
Operating weight † (§)	kg	94 927	98 596	95 447	99 116	96 304	99 973	96 607	100 277	
	lb	209,278	217,367	210,424	218,513	212,314	220,403	212,932	221,073	

(§) Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers. SAE Standards J732C govern loader ratings and are denoted in the text by (§).

\* Dimensions are also measured to the tip of the bucket teeth to provide accurate clearance data. SAE Standards specifies the cutting edge.

† Static tipping load and operating weight shown are based on standard machine configuration with 45/65-45, 46 PR (L-5) tires, full fuel tank, coolant, lubricants and operator.

†† Measured 102 mm (4.0"): behind tip of segments with bucket hinge pin as pivot point in accordance with SAE J732C.



## Tire Dimensions/Specifications

	Width over tires		Ground clearance		Change in vertical dimensions	
	mm	in	mm	in	mm	in
45/65, 46 ply L-5 Firestone	4516	177.8	691	27.2	0	0
45/65, 46 ply L-5 Goodyear	4495	177.0	671	26.4	20	.80
45/65, 50 ply L-5 Firestone	4516	177.8	691	27.2	0	0
45/65, 50 ply L-5 Bridgestone	4493	176.9	632	24.9	59	2.3
45/65-45, 58 ply L-5 Bridgestone	4493	176.9	632	24.9	59	2.3
45/65-45, 58 ply NRL 6J L-5 Goodyear	4534	178.5	622	24.5	69	2.7
45/65 R45, 1★ L-5 Bridgestone	4572	179.9	581	22.9	110	4.3
45/65 R45, 1★ VSDL L-5 Bridgestone	4572	179.9	581	22.9	110	4.3
45/65 R45, RL5 Goodyear	4557	179.4	596	23.5	95	3.7
45/65 R45, 1★ L-4 (XLDD1) Michelin	4519	177.9	621	24.4	70	2.75
45/65 R45, 1★ L-5 (XLDD2) Michelin	4519	177.9	619	24.4	72	2.8
45/65 R45, 1★ L-5 (X MINED2) Michelin	4476	176.2	629	24.8	62	2.4

**NOTE:** In certain applications (such as load-and-carry work) the loader's productive capabilities might exceed the tires tonnes-km/f (ton-mph) capabilities. Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model. Other special tires are available on request.

## Supplemental Specifications

Tires:	Change in Operating Weight standard (for four tires)		Change in Articulated Static Tipping Load		High Lift	
	kg	lb	kg	lb	kg	lb
45/65, 46 ply L-5 Firestone	0	0	0	0	0	0
45/65, 46 ply L-5 Goodyear	-162	-356	-108	-238	-97	-214
45/65, 50 ply L-5 Firestone	-278	-612	-185	-408	-164	-362
45/65, 50 ply L-5 Bridgestone	-423	-933	-278	-613	-248	-547
45/65-45, 58 ply L-5 Bridgestone	-91	-201	-60	-132	-53	-117
45/65-45, 58 ply NRL 6J L-5 Goodyear	-1055	-2326	-694	-1530	-620	-1367
45/65 R45, 1★ L-5 Bridgestone	-1327	-2926	-872	-1923	-780	-1720
45/65 R45, 1★ VSDL L-5 Bridgestone	-1327	-2926	-872	-1923	-780	-1720
45/65 R45, RL5K Goodyear	-1307	-2882	-859	-1894	-768	-1693
45/65 R45, 1★ L-4 (XLDD1) Michelin	-1942	-4272	-1290	-2838	-1142	-2518
45/65 R45, 1★ L-5 (XLDD2) Michelin	-681	-1500	-452	-994	-400	-882
45/65 R45, 1★ L-5 (X MINED2) Michelin	+752	+1656	+523	+1151	+451	+994

## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### ELECTRICAL

- Alarm, back-up
- Alternator, (100-amp)
- Batteries, maintenance-free
- Deutsch terminal connectors
- Lighting system, halogen (front and rear)
- Starter, electric (heavy duty)
- Starting and charging system (24-volt) diagnostic connector
- Starting receptacle for emergency start

### OPERATOR ENVIRONMENT

- Air conditioner
- Cab, sound suppressed, pressurized
  - Radio ready for (entertainment) includes antenna, speakers and converter (12-volt, 5-amp)
- Cigar lighter and ashtray
- Coat hook
- Electro-hydraulic tilt and lift controls
- Heater and defroster
- Horn, electric
- Tilt and lift control system lock
- Light, dome (cab)
- Lunchbox and beverage holders
- Monitoring system (VIDS) with gauges
  - Action alert system, three category
  - Instrumentation, Gauges:
    - Engine coolant temperature
    - Fuel level
    - Hydraulic oil temperature
    - Tachometer
    - Transmission oil temperature
- Mirrors, rearview (internally and externally mounted)
- Payload Control System
- Programmable Top Gear
- Rimpull control system
- ROPS/FOPS
- Seat, Cat Comfort (cloth), air suspension
- Seat belt, retractable, 76 mm (3 in) wide
- STIC control system
- Tinted glass
- Transmission gear indicator
- Vital Information Management System
- Wet-arm wipers/washer (front, rear and corners)
  - Intermittent front wipers

### POWER TRAIN

- Axle oil coolers (front and rear)
- Brakes, full hydraulic, enclosed, wet multiple disc service brakes and parking/secondary
- Case drain filters
- Demand fan
- Engine Cat 3508B EUI Diesel
- Fuel priming pump
- Ground level engine shutdown
- Muffler (sound suppressed)
- Precleaner, engine air intake
- Radiator, advanced modular cooling system (AMOCS)
- Separated cooling system
- Starting aid (ether) automatic
- Throttle lock
- Torque converter, impeller clutch with rimpull control device
- Transmission, planetary, power shift with (3F/3R)
- Venturi Stack

### OTHER STANDARD EQUIPMENT

- Autolube (Lincoln)
- Automatic bucket lift/tilt kickouts electronically adjustable from cab
- Doors, service access (locking)
- Hoses, XT
- Fenders (front and rear)
- Guards, power train and crankcase
- High speed oil change
- Hitch, drawbar with pin
- Hydraulic oil cooler
- Oil sampling valves
- Stairway, left rear access
- Steering, load sensing
- Vandalism protection caplocks

### ANTIFREEZE

- Premixed 50 percent concentration of Extended Life Coolant with freeze protection to  $-34^{\circ}\text{C}$  ( $-29^{\circ}\text{F}$ )

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## Mandatory Attachments

*Must choose from each category. Consult your Caterpillar dealer for more information.*

### Lift Arrangement

- Standard Lift VIMS

- High Lift VIMS

### Torque Converter

- Standard ICTC with housing

- ICTC with housing and Lock-up

### Fuel System

- Standard Fuel Fill

- Fast Fill

- Fuel Heater

- Fast Fill and Heater

### Cooling Packages

- Standard – for ambient temperatures up to 46° C (115° F)

- High Ambient – for ambient temperatures up to 50° C (122° F)

### Access Stairs

- Standard Left-hand Stairway

- Left and Right Stairway

- Left and Right Stairway with Rooding Fenders

### Steering and Filtration Systems

- Standard Steering and Case Drain Filters

- Standard Steering, Case Drain Filters and Deluxe Filtration Package

- Secondary Steering and Case Drain Filters

- Secondary Steering with Case Drain Filters and Deluxe

- Filtration Package

### Tires

- Consult your Caterpillar dealer for current options

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## Optional Equipment

*Choose the options that are right for your application. Consult your Caterpillar dealer for more information.*

- Amber beacon

- Cab air turbine precleaner

- Coolant Extended Life –50° C (–58° F)

- Heater, engine coolant, 120-volt

- Heater, engine coolant, 240-volt

- Oil Renewal System

- Precleaner, turbine non-metal

- Caterpillar Product Link System

- Rear No-SPIN differential

- Rubber mounted glass

- Buckets and GET – Consult your Caterpillar dealer for all of the options

- Buckets

- Tips

- Segments

- Protectors

- Wings



# 992G Wheel Loader

AEHQ5526-02 (6-04)  
Replaces AEHQ5526-01

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