

# 924Gz

Wheel Loader



Bucket capacities	1.7 - 2.1 m <sup>3</sup>	2.2 - 2.75 yd <sup>3</sup>
Operating weight to	10 940 kg	24,125 lb
Cat 3056T Engine		
Gross power	91 kW	122 HP
Flywheel power	85 kW	114 HP

# 924Gz Wheel Loader

*Offering world class performance, value and reliability.*

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## Cat® Power Train

✓ The 924Gz uses a Caterpillar power train to get maximum power to the ground. A Caterpillar 3056T six cylinder engine and Cat power shift transmission are performance-matched to the torque converter and Cat axles. **pg. 4-5**

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## Hydraulic System

✓ A new, modular hydraulic system offers advanced load-sensing features, fast loading cycles, easy reconfiguration and ride control. **pg. 6**

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## Caterpillar Buckets

General purpose buckets are designed specifically for the 924Gz and offer excellent digging, loading and carrying performance. **pg. 7**

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## Operator Station

The G-Series operator station is designed for total control in an ergonomic and spacious environment. All controls, levers, switches and gauges are positioned to maximize comfort and productivity. Sound levels are greatly reduced. **Two-door cab offers exceptional ventilation and easy entry and exit. Full-length glass windshield enhances visibility. pg. 8**

## **More Power And Performance**

*The 924Gz is designed and built for maximum loader performance. The powerful Caterpillar power train, new load-sensing hydraulic system and Z-bar linkage all combine to give more than ever before from a machine this size.*

## **Better Operator Comfort**

*Operating the 924Gz is now easier with lower interior and exterior sound levels and improved loader controls. The Caterpillar G-Series cab surrounds the operator with over 30% more glass than the former model. Inside the cab, advanced human engineering principles make operation of the 924Gz less of a job, more of a powerful experience.*

## **Quicker, Easier Service**

*Service of the 924Gz is simplified with excellent access to all routine service points. Swing-up gull-wing doors and a swing-out cooling fan give you more room to work. Engine service intervals are twice as long as industry standard.*

✓ *New feature*



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### Serviceability

Easily perform daily maintenance with ground-level access to all major service points. *New gull-wing doors provide excellent engine access and a swing-out fan assembly simplifies cooling system service. The normal engine oil change requirement is only every 500 hours of operation.* **pg. 9**

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### Environmentally Responsible Design

Quieter operation, lower engine emissions, less fluid disposal and cleaner service help you meet worldwide regulations and protect the environment. **pg. 10**

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### Complete Customer Support

Your Cat Dealer offers a wide range of services that help you operate longer with lower costs. Select individual services or a comprehensive Customer Support Agreement. **pg. 11**



# Caterpillar® Power Train

*Rugged, dependable Cat components carefully matched to most efficiently get maximum rimpull to the ground and full power to the loader hydraulics.*

The 924Gz delivers fast response and aggressive performance in tough applications. The power train features a Cat 3056T diesel engine and power shift transmission precision-matched to a torque converter and rugged Caterpillar axles. The system has been carefully tested and balanced to provide optimum performance and durability in actual operating conditions.

## 1 - Caterpillar 3056T diesel engine.

The six-cylinder, turbocharged 3056T has a strong reputation for reliability, durability and performance:

- highly efficient combustion chamber increases power while lowering fuel consumption, engine emissions and noise;
- meets all known current worldwide engine emission standards;
- low cylinder pressure rise and low peak pressure provide outstanding reliability and durability;

- the normal engine oil change requirement is only every 500 hours of operation;
- engine and cooling system are in separate compartments for cleaner, quieter operation and easier service.

## 2 - Power shift transmission with standard Autoshift.

Rugged, field-proven Caterpillar 4F/3R transmission uses heavy-duty components for durable and reliable operation. Full power shift capability and electronically-controlled Autoshift simplify operation. Plus, it's designed for easy service and rebuild.

- high-energy friction materials for better heat tolerance and thick reaction plates for better heat dissipation;
- electronic Autoshift transmission increases operator efficiencies and optimizes machine performance. Operator can choose auto or manual operation;
- dampened shifting provides smoother transition and reduced operator fatigue;

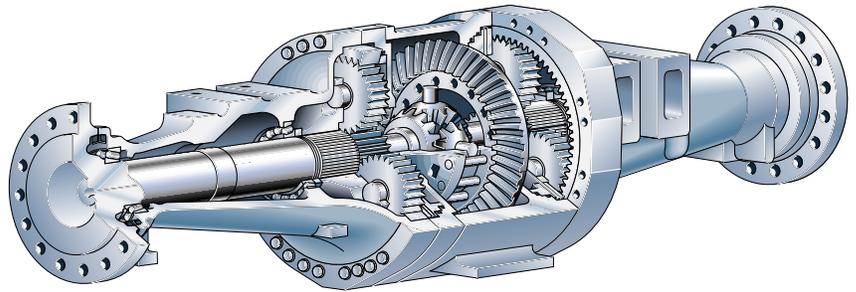
- designed with fewer, simpler parts for more reliable operation;
- simplified removal, disassembly and reassembly for overhaul and rebuild, making it easier to give the 924Gz a second or third life.
- a low-speed transmission option with lower gear ratio provides slower travel speed with high engine speed for better match with attachments that demand high hydraulic flow.



### 3 - Caterpillar axles and brakes.

Enclosed design allows extended operation, even in harsh environments.

- heavy-duty design features stronger gears and bearings for durable performance;
- Duo-Cone Seals keep oil in and contaminants out;
- oil-disc brakes are adjustment-free and fully enclosed;
- optional front and rear Limited Slip differentials provide maximum traction in poor underfoot or uneven floor conditions;
- oscillating rear axle helps assure four-wheel ground contact for optimum traction and stability.



# Hydraulic System

*New modular system provides improved efficiency, low-effort controls and easy operation.*



**Modular hydraulic system** designed by Caterpillar provides low-effort operation and greater control:

- separate steering and implement pumps improve machine response;
- load-sensing steering gives priority to the steering system on demand, making more power available for rimpull, breakout and lift forces;
- system is designed to manage use of engine power and lower fuel consumption;
- load-sensing implement hydraulics provide exceptional second gear hydraulic-to-rimpull match for better performance in tough materials;
- simultaneous lift and tilt functions help improve productivity;
- velocity modulation of lift and tilt functions ... the further you pull or push the lever, the faster the function;
- low-effort, single-lever implement control;
- very fast loader cycle times;

- exceptional backdrag performance due to a large tilt cylinder and new check valves;
- hydraulic system is virtually drift-free.

**Modular hydraulic control valves** add a new dimension of versatility that greatly simplifies and lowers overall cost of reconfiguring the machine for additional functions.

The standard 924Gz with pin-on implement comes equipped with a two-section control valve for lift and tilt functions. If new applications place additional hydraulic requirements on the machine, such as adding a Quick Coupler or powered attachments, you can simply stack additional valve sections (totalling up to four) on the existing ones. There is no need to scrap valves or change hydraulic lines. This preserves your initial investment and lowers the cost of machine upgrades.

The control valves now feature convenient ground-level access for easier modifications to the system.

**Ride Control Option** provides a comfortable ride at all speeds. The system operates automatically or can be turned off with a switch at the operator station. The system uses a nitrogen oil accumulator in the hydraulic lift circuit that acts like a shock absorber for the loader linkage and bucket. The reaction to movement over rough ground is dampened, reducing fore and aft pitch.

**Other features include:**

- compatibility with Cat biodegradable hydraulic oil;
- pressure taps allow quick diagnosis of the whole hydraulic system;
- Caterpillar XT hose & couplings provide rugged, reliable performance with significantly reduced risk of leaks and blown lines.

# Caterpillar Buckets

*Caterpillar's selection of general purpose buckets are an integral part of a machine designed to optimize performance.*

**Choice of Buckets.** Caterpillar offers two general purpose buckets for use on the 924Gz. Careful match of bucket design and machine operating characteristics provide the best digging, loading and carrying performance.

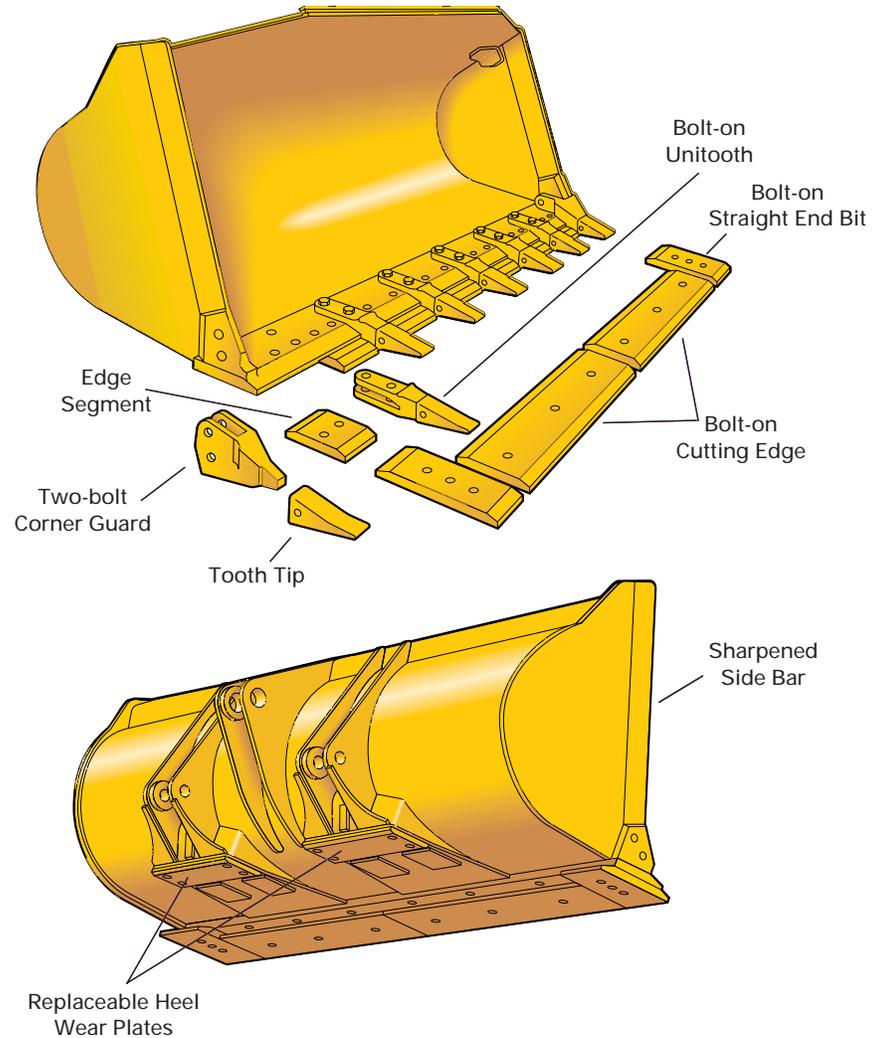
**Caterpillar General Purpose Buckets**, available in 1.8 m<sup>3</sup> (2.3 yd<sup>3</sup>.) and 2.1 m<sup>3</sup> (2.75 yd<sup>3</sup>.) capacities, are suitable for most general applications. Features include:

- improved bucket design with longer floor for easier flow of material into the bucket;
- patented Two-Bolt Corner Guard Cutting Edge System offers superior wear resistance, better stability and a simple bolt-on system;
- built-in, replaceable heel wear plates extend bucket life.

**Ground Engaging Tools** include hardened steel cutting edges, choice of short or long teeth and a variety of tooth adapters. Properly selected, these tools optimize performance, improve load retention and extend the useful life of Caterpillar buckets.

**For expanded machine versatility**, other special purpose buckets are also available. Contact your Caterpillar Dealer for details.

## General Purpose Bucket



## Operator Station

*Ergonomic design emphasizes comfort, visibility and easy operation.*



The G-Series cab is a spacious and comfortable work environment that includes larger windows, more interior room, better ergonomics, generous storage areas and a dramatic reduction in interior sound levels.

**Access/egress** is through a two-door design. Both doors open fully and lock flush against the cab. Doors are available with solid or sliding glass windows.

**Larger windows** have more glass area for exceptional visibility. All glass is flat so replacement panels are readily available and less costly than curved glass.

**Interior sound power (dB) has been cut in half** compared to former models\* by a combination of improved sound insulation and low-noise components. High-efficiency engine cooling system helps reduce exterior sound level. In all, the 924Gz is one of the quietest machines in its size class.

\* interior sound pressure measures 3 decibels less than former models.

**Comfortable, low-effort operation** is made possible by:

- pilot hydraulic implement controls;
- padded, adjustable wrist rest;
- remote transmission control option (adds forward/neutral/reverse control switch on the implement lever);
- load-sensing, closed-center steering system with flow amplification;
- dual, suspended brake pedals with transmission neutralizer;
- Tilt console with infinite adjustment.

**Generous storage space** includes a lockable compartment, coat hook and molded compartments designed to hold:

- lunchbox/cooler;
- Thermos vacuum bottle;
- cup or can.

**Seat options** include a basic seat with fully adjustable fore/aft position, seatback angle, bottom cushion height, armrest angle and suspension stiffness. Seat cover is a combination of durable, breathable cloth and vinyl.

Other seat options include:

- Cat Contour Series Seat with the addition of adjustable backrest and lumbar support.
- Cat Contour Series Seat with air suspension, electrically adjustable.
- basic seat with all vinyl covering.
- basic seat, fabric covering, heated cushions (thermostatically controlled) and seat-activated parking brake warning.

All seats include a comfortable 75 mm (3 in.) wide retractable seat belt.

**Customize the cab** with:

- 12 VDC converter for powering 12V electronics;
- radio prep packages for installation of a radio later;
- sun visor for windshield;
- roll-down sun screen for rear window;
- external mirror package;
- auxiliary lighting packages.

## Serviceability

*Improved access and less maintenance requirements add up to unparalleled ease of service.*



**Easy, wide open access.** Gull-wing doors with pneumatically-assisted lift cylinders effortlessly lift up for exceptional access to major power train components. All filters and service points are within easy reach.

**Simplified routine service.** All service points are accessible from ground level and are grouped in two locations. Sight gauges allow easy check of radiator coolant, hydraulic oil and transmission oil levels.

**Swing-out cooling fan** allows quick, easy cleaning and service of the radiator. The fan is hydraulically driven and separated from the engine compartment. This innovative system features:

- cooling fan, oil cooler and A/C condenser swing away for excellent access to radiator;
- high-efficiency fan and shroud;
- low-noise operation;
- simple design for high reliability;
- radiator and coolant hoses remain stationary;
- hydraulic oil cooler is standard;
- uses new Cat Extended Life Coolant/Antifreeze for extended operation (up to 6,000 hr.) between changes.

**Scheduled Oil Sampling (S•O•S) valves** are factory installed for improved access to engine, transmission and hydraulic oils. S•O•S valves make oil sampling quicker, cleaner and provides the most representative oil sample for analysis.

Other service features include:

- longer service intervals:
  - up to 500 hours for engine;
  - up to 6000 hours for coolant;
- spin-on filters for engine oil, transmission oil and hydraulic oil easy to reach and change with minimal risk of oil spill;
- self-diagnostic transmission and data link allow quick, easy troubleshooting by service personnel;
- driveshaft is permanently lubricated;
- adjustment-free brakes;
- adjustment-free engine fuel system.

## Environmentally Responsible Design

*Caterpillar machines not only help you build a better world, they help maintain and preserve the fragile environment.*



**More performance.** The 924Gz is designed to provide more performance than ever before in a machine this size. That means more work done in a day, less fuel consumed and minimal impact on our environment.

**Low exhaust emissions.** The Cat 3056T used in the 924Gz is a low emission engine designed to meet current worldwide emission regulations.

**Quiet operation.** Not only is the cab quiet, but spectators outside hear little noise too. That is because the remote cooling system allows the 924Gz's engine to be fully enclosed – less noise escapes.

**Extra sound suppression** with an optional package makes the 924Gz even quieter\* so it's ideal for sound-sensitive applications like urban and night work, and when used for snow removal.

\* exterior sound pressure measures 6 decibels less compared to a standard-equipped machine.

**Ozone protection.** To help protect the earth's ozone layer, the 924Gz's air conditioning unit uses only R-134a refrigerant which does not contain harmful chlorofluorocarbons (CFC's).

**Caterpillar biodegradable hydraulic oil** can be used in the 924Gz, providing a more environmentally-sound alternative to mineral-based oils.

**Fewer leaks and spills.** Lubricant fillers and drains are designed to minimize spills. Cat O-Ring Face Seals, XT Hose and hydraulic cylinders are all designed to help prevent fluid leaks that can rob the machine performance and cause harm to the environment. Also, the new Cat Extended Life Coolant/Antifreeze provides extended service (up to 6,000 hours) so there is less need for fluid disposal.

**Longer service intervals.** 500-hour engine service intervals and Cat Extended Life Coolant/Antifreeze (up to 6,000-hour service) mean there is less disposal of used fluids.

**Rebuildable components.** Many of the major components used in the 924Gz are designed for rebuildability. That means you have high-quality, certified rebuilt replacement parts available to you at a fraction of the cost of new. Plus there is less scrap for disposal.

## Complete Customer Support

*Cat dealer services ensure the 924Gz a longer service life and lower operating costs.*



Your Cat dealer offers a wide range of services that can be set up under a customer support agreement. Choose a plan that can cover everything from machine and attachment selection to replacement intervals to get the best return on your machine investment.

**Selection.** Your Cat dealer can help you make detailed comparisons of machines you are considering before you buy. You can compare things like expected component life, the cost of preventive maintenance and the true cost of lost production.

**Purchase.** Look past initial price. Consider the financing options available, as well as daily operating costs. You can also look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the life of the machine.

**Maintenance.** Choose from your Cat dealer's wide range of maintenance services for your 924Gz. Repair option programs guarantee the cost of repairs. Diagnostic programs such as S•O•S Oil Analysis and Technical Analysis help you avoid unscheduled repairs.

**Replacement.** Your Cat dealer can help you evaluate the cost involved with repairing, rebuilding or replacing. You can be assured that the choice you make will be the right one.

**Product support.** Nearly all parts needed to support the 924Gz are already available at your dealer's parts counter. And you can save money with remanufactured parts. You receive the same warranty and reliability as new parts, but at a cost savings of 40 to 70 percent.

# Engine

Caterpillar four-stroke cycle, six cylinder 3056T turbocharged diesel engine.

Ratings at 2300 RPM	kW	HP
Gross power	91	122
Net power	85	114

The following ratings apply at 2300 rpm when tested under the standard conditions for the specified standard:

Net Power	kW	HP
Caterpillar	85	114
ISO 9249 (1997)	85	114
EEC 80/1269	85	114
SAE J1349:90	84	112

## Dimensions

Bore	100 mm	3.94 in.
Stroke	127 mm	5 in.
Displacement	6.0 liters	366 cu in.

## Power rating conditions

- net and gross power advertised is the minimum power available at the flywheel when the engine is equipped with air cleaner, fan, muffler and alternator.
- no derating required up to 2285 m (7,495 ft) altitude.

## Exhaust Emissions

The Caterpillar 3056T meets the current Stage 1/Tier 1 off-highway emission regulations world-wide.

## Features

- direct-injection rotary fuel pump provides accurate fuel delivery.
- three-ring, controlled-expansion pistons lubricated by oil from the piston cooling jets.
- gear-driven water pump.
- gear-driven oil pump.
- replaceable dry liners supported over their entire length.
- replaceable valve guides and seats.
- integral plate-type oil cooler.
- piston cooling jets.
- deep-skirted, internally-stiffened cast iron block.
- one-piece cast iron cylinder heads with two valves per cylinder.
- fuel priming pump and fuel/water separator are standard.
- direct electric 24-volt starting and charging system with two 12-volt 700 CCA Caterpillar maintenance-free batteries and 50-amp alternator.
- thermal starting aid is standard.
- heavy-duty starting system is available.
- S•O•S sampling valve for engine oil.

# Transmission

Caterpillar transmission with four forward, three reverse speed ranges and full power shift capability.

Electronically-controlled Caterpillar countershaft transmission with full on-the-go directional and speed change capability. Optional low speed transmission available for better match with attachments requiring high hydraulic flow.

## Features

- high-energy friction materials and thick reaction plates for better tolerance of heat.
- high-contact ratio spur gears are precision ground and heat treated for quiet, reliable operation.
- electronic autoshift is standard.
- button on implement control lever allows downshifting on demand.
- dampened shifting provides smoother transitions.
- S•O•S oil sampling valve for transmission oil.

## Standard Transmission:

Max travel speeds (17.5-25 L-2 tires):

		km/h	MPH
Forward	1	6.7	4.2
	2	12.2	7.6
	3	21.8	13.5
	4	38.5	23.9
Reverse	1	6.5	4.0
	2	11.9	7.4
	3	21.6	13.4

## Optional Low Speed Transmission:

Max travel speeds (17.5-25 L-2 tires):

		km/h	MPH
Forward	1	3.2	2.0
	2	6.6	4.1
	3	18.2	11.3
	4	38.5	23.9
Reverse	1	3.5	2.2
	2	7.2	4.5
	3	19.7	12.2

## Axles

Fixed front, oscillating rear ( $\pm 12^\circ$  with 17.5 - 25 L-2 tires).

### Features

- Caterpillar axle with fully-enclosed brakes and final drives.
- patented Duo-Cone Seals between axle and housing.
- rear wheel can raise or drop a total of: 423 mm (16.7 in.) with 17.5 tires, or 326 mm (12.8 in) with 20.5 tires.
- conventional differentials standard.
- Limited Slip differentials are optional on front, rear or both axles.
- rear axle trunnion has remote lubrication fitting.

## Brakes

Meets the following standards:  
SAE J1473 OCT 90, ISO 3450-1996.

### Service brake features

- inboard oil-immersed disc brakes on front and rear axles are standard.
- completely enclosed and sealed.
- adjustment-free.
- separate circuits for front and rear.
- dual pedal braking system.
- switch in cab allows operator to select automatic transmission neutralizer which activates during braking.
- brakes are fully integrated with hydraulic system, no air system required.

### Secondary brake features

- Indicator light alerts operator if brake pressure drops.
- continually-charged nitrogen accumulators provide stopping power after loss of engine power.

### Parking brake features

- mechanical, shoe-type brake.
- mounted on drive line for positive manual operation.
- application of parking brake neutralizes the transmission.

## Final Drives

Planetary final drives consist of ring gears and planetary carrier assemblies.

### Features

- ring gears are pressed in and doweled into axle housing.
- carrier assemblies include planet gears with full-floating bronze sleeve bearings.
- high contact ratio gearset reduces noise levels during meshing.
- planetary reduction gears are inboard mounted for optimal protection and durability.

## Loader Hydraulic System

Closed-center, load-sensing system. Pilot-operated hydraulic implement controls.

### Implement system, variable displacement pump

Output at 2300 engine rpm and 6900 kPa (1000 psi) with SAE 10W oil at 65°C (150°F)	152 liters/min	39.5 gpm
Maximum working pressure:	25 900 kPa	3755 psi

Lift cylinders, double acting: bore and stroke	107.95 x 755 mm	4.25 x 29.7"
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Tilt cylinder, double acting: bore and stroke	120.6 x 520 mm	4.75 x 20.5"
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Hydraulic cycle time	Seconds
Raise	5.5
Dump	1.2
Lower, empty, float down	2.7
Total	9.4

### Features

- load-sensing system provides only the flow and pressure needed to move the load.
- variable-displacement piston-type implement pump.
- low effort, pilot-operated controls.
- pilot shutoff valve disables implement functions for added safety.
- hydraulic couplings with O-Ring Face Seals.
- standard hydraulic oil cooler tilts out for easy cleaning of heat exchangers.
- Ride Control system available to reduce machine bounce when traveling.
- S•O•S oil sampling valve for hydraulic system oil.

## Cab

Caterpillar cab and Rollover Protective Structure (ROPS) are standard in North America and Europe.

### Features

- ROPS meets the following criteria:
  - SAE J1040 MAY94.
  - ISO 3471-1994.
- also meets the following criteria for Falling Object Protective Structure:
  - SAE J231 JAN81.
  - ISO 3449-1992.

### Note

When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed as per work cycle procedures specified in ANSI/SAE J1166 May 90, results in an operator sound exposure Leq (equivalent sound pressure level) of 74 dB(A). Also, when tested as per the static specifications of 86/662/EEC and dynamic specifications of 95/27/EC, the respective operator sound pressure levels is 73 dB(A).

As manufactured by Caterpillar, this machine's exterior sound power level meets the criteria spelled out in the European Directives noted on the certificate of conformance and the accompanying labeling.

## Tires

Tubeless, loader design tires.

### Choice of

- 17.5 - 25, 12PR (L-2)
- 17.5 - 25, 12PR (L-3)
- 17.5 R25, radial (L-2)
- 17.5 R25, radial (L-3)
- 555/70 R25, radial (L-3)
- 20.5 - 25, 12 PR (L-2)
- 20.5 - 25, 12 PR (L-3)
- 20.5 R25, radial (L-2)
- 20.5 R25, radial (L-3)
- Other tire choices are available, contact your Cat Dealer for details

### Note

In certain applications (such as load and carry work) the loader's productive capabilities might exceed the tires' tonnes-km/h (ton-MPH) capabilities. Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model.

## Bucket Controls

Pilot-operated lift and tilt circuits.

### Lift circuit features

- four positions: raise, hold, lower and float.
- can adjust automatic kickout from horizontal to full lift.

### Tilt circuit features

- three positions: tilt back, hold and dump.
- two-speed dump for quick dumping with bucket and precise load control with forks or other attachments.
- can adjust automatic bucket positioner to desired loading angle.
- does not require visual spotting.

### Controls

- choice of low effort single-lever or two lever control of lift and tilt circuits.
- optional third and fourth function hydraulic circuits available with individual lever controls for remote hydraulic functions.
- controls can be disabled for roading.

## Steering

Full hydraulic power steering. Meets ISO 5010-1992, SAE J1511-FEB94.

### Ratings

Minimum turning radius: (over tire)	5070 mm (16' 8")
Steering angle, each direction:	40°
Steering cylinders, two: bore	69.9 mm (2.75 in.)
Hydraulic output at 2300 rpm and 6900 kPa (1000 psi):	106 liters/min (27.7 gpm)
Maximum working pressure:	20 685 kPa (3000 psi)

### Features

- center-point frame articulation.
- front and rear wheels track.
- variable displacement piston pump provides steering power at all engine and ground speeds.
- tilt steering console.
- high-impact rubber steering stops.
- secondary steering system available to meet roading regulations in various countries, and to meet ISO 5010.

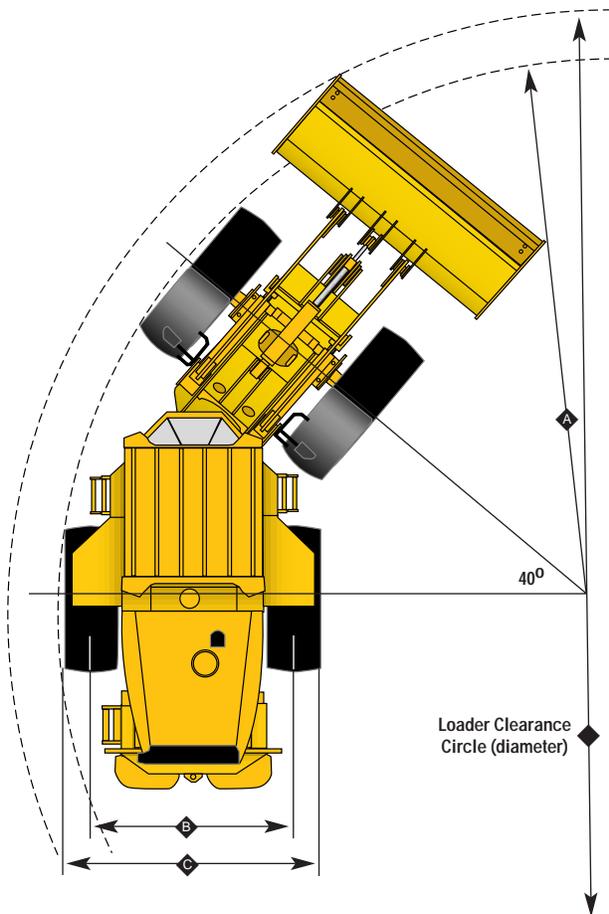
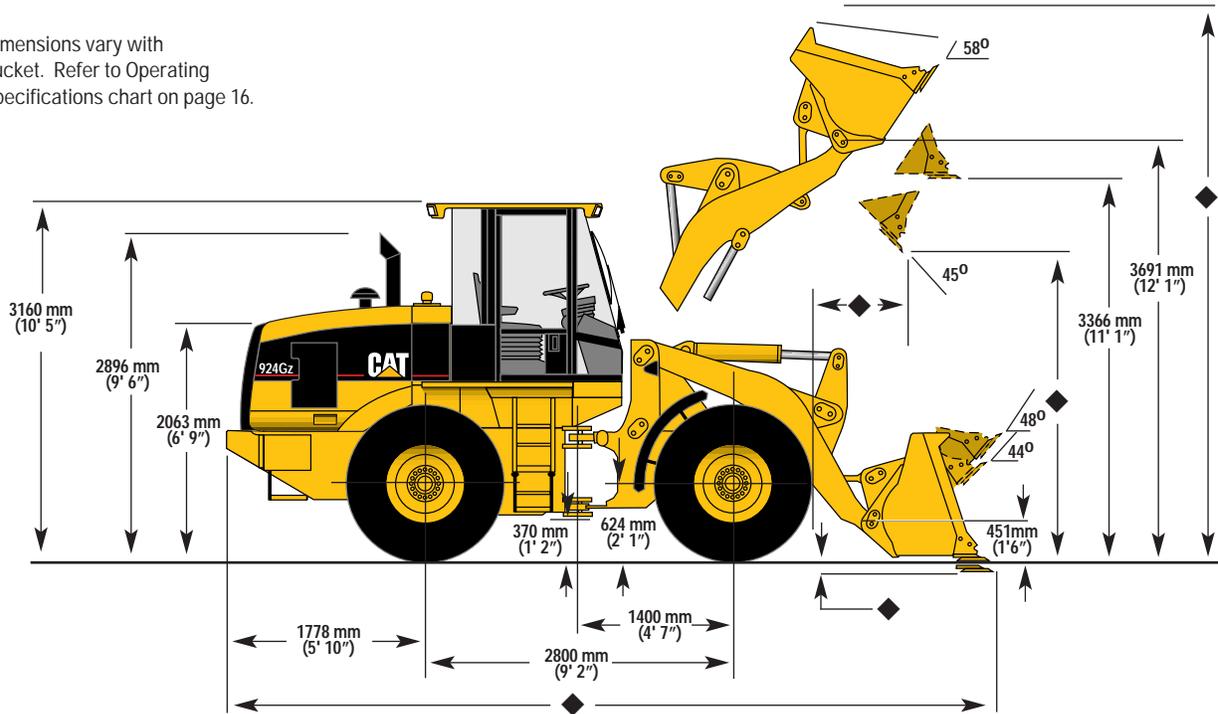
## Service Refill Capacities

	Liters	Gallons
Fuel tank	198	51.5
Cooling system	42	10.9
Crankcase	16	4.2
Transmission	23	6.1
Differentials and final drives:		
front	21	5.5
rear	21	5.5
Hydraulic system (including tank)	133	35
Hydraulic tank	73	19

# Dimensions with Bucket

All dimensions are approximate.

◆ Dimensions vary with bucket. Refer to Operating Specifications chart on page 16.



	17.5 - 25 12PR(L-2)	20.5 - 25 12PR(L-2)
A	5070 mm (16' 8")	5135 mm (16' 10")
B	1880 mm (6' 2")	1880 mm (6' 2")
C	2356 mm (7' 9")	2466 mm (8' 1")
change in vertical dimension	--	+68 mm (+3")

# Operating Specifications

		General Purpose					
		With Bolt-On Cutting Edge		With Bolt-On Teeth & Segments*		With Bolt-On Teeth*	
Rated bucket capacity (§)	m <sup>3</sup>	1.8	2.1	1.8	2.1	1.7	2.0
	yd <sup>3</sup>	2.3	2.7	2.3	2.7	2.2	2.6
Struck capacity (§)	m <sup>3</sup>	1.5	1.7	1.5	1.7	1.4	1.6
	yd <sup>3</sup>	2.0	2.2	2.0	2.2	1.8	2.1
Bucket width	mm	2550	2550	2585	2585	2585	2585
	ft/in	8' 4"	8' 4"	8' 6"	8' 6"	8' 6"	8' 6"
Dump clearance at full lift and 45° discharge (§)	mm	2760	2691	2656	2587	2656	2587
	ft/in	9' 1"	8' 10"	8' 9"	8' 6"	8' 9"	8' 6"
Reach at full lift and 45° discharge (§)	mm	865	934	969	1037	969	1037
	ft/in	2' 10"	3' 1"	3' 2"	3' 5"	3' 2"	3' 5"
Reach at 45° discharge and 2130 mm (7 ft 0 in) clearance (§)	mm	1357	1386	1399	1424	1399	1424
	ft/in	4' 5"	4' 6"	4' 7"	4' 8"	4' 7"	4' 8"
Reach with lift arms horizontal and bucket level	mm	2133	2230	2279	2376	2279	2376
	ft/in	7' 0"	7' 4"	7' 6"	7' 10"	7' 6"	7' 10"
Digging depth (§)	mm	110	118	110	118	85	93
	in	4"	4.5"	4"	4.5"	3.5"	3.5"
Overall length	mm	6890	6993	7036	7138	7017	7120
	ft/in	22' 7"	22' 11"	23' 1"	23' 5"	23' 0"	23' 4"
Overall height with bucket at full raise (§)	mm	4743	4870	4743	4870	4743	4870
	ft/in	15' 7"	16' 0"	15' 7"	16' 0"	15' 7"	16' 0"
Loader clearance circle with bucket in carry position (§)	mm	11 218	11 276	11 339	11 399	11 339	11 399
	ft/in	36' 10"	37' 0"	37' 2"	37' 5"	37' 2"	37' 5"
Static tipping load straight (§)	kg	7868	7785	7700	7614	7862	7802
	lb	17,310	17,127	16,940	16,750	17,296	17,164
Static tipping load full 40° turn (§)	kg	6886	6806	6717	6635	6872	6812
	lb	15,149	14,973	14,777	14,597	15,118	14,986
Breakout force (§)	kg	9876	8902	9756	8782	10 660	9535
	lb	21,727	19,584	21,463	19,320	23,452	20,977
Operating weight	kg	9907	9960	10 042	10 095	9957	10 010
	lb	21,795	21,912	22,092	22,209	21,905	22,022

Specifications shown are for 924Gz with optional counterweight, standard lubricants, full fuel tank, ROPS cab, 80 kg (176 lb) operator and 17.5 - 25 12PR (L2) tires.

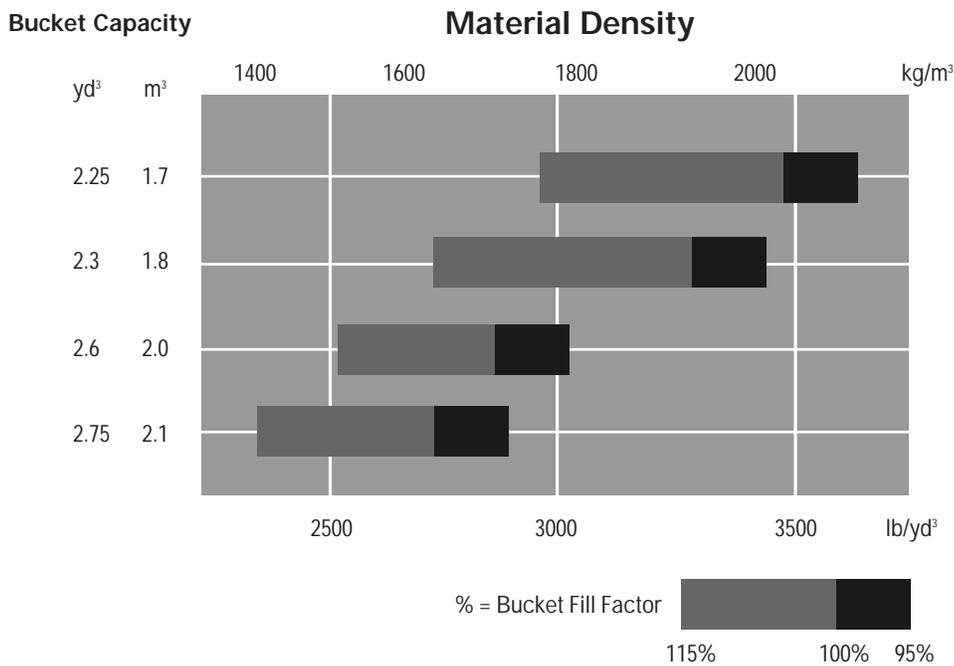
**Note:** Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers (SAE). SAE Standards J732 JUN92 and J742 FEB85 govern loader rating, denoted in the text by (§).

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

# Typical material densities-loose

	kg/m <sup>3</sup>	lb/yd <sup>3</sup>		kg/m <sup>3</sup>	lb/yd <sup>3</sup>		kg/m <sup>3</sup>	lb/yd <sup>3</sup>
Basalt	1960	3305	Granite			Sand		
Bauxite, Kaolin	1420	2394	broken	1660	2799	dry, loose	1420	2394
Clay			Gravel			damp	1690	2849
natural bed	1660	2799	pitrun	1930	3254	wet	1840	3102
dry	1480	2495	dry	1510	2546	Sand and clay		
wet	1660	2799	dry, 6-50 mm (.2-2")	1690	2849	loose	1600	2698
Clay and gravel			wet, 6-50 mm (.2-2")	2020	3406	Sand and gravel		
dry	1420	2394	Gypsum			dry	1720	2900
wet	1540	2596	broken	1810	3052	wet	2020	3416
Decomposed rock			crushed	1600	2698	Sandstone	1510	2546
75% rock, 25% earth	1960	3305	Limestone			Shale	1250	2107
50% rock, 50% earth	1720	2900	broken	1540	2596	Slag		
25% rock, 75% earth	1570	2647	crushed	1540	2596	broken	1750	2950
Earth						Stone		
dry, packed	1510	2546				crushed	1600	2698
wet, excavated	1600	2698						

# Bucket Size Selector



# Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for specifics.

Air cleaner, dry type	Counterweight	Lift/tilt kickout neutralizer
Alarm, back-up	Differentials, conventional (front/rear)	Lighting system: - brake lights
Alternator, 55-amp	Driveshaft, lubed for life	- working lights (halogen, flood)
Antenna, for radio	Electrical system, 24V	includes 2 on front tower, 2 on front
Antifreeze/coolant, extended-life, protects to minus 36C (-33F)	Engine, Caterpillar 3056T (Low Emission Diesel)	roof and 2 on rear roof
Axle seal guards	Engine enclosure, lockable	Loader linkage, z-bar
Batteries, maintenance-free, 12V, Heavy duty, 900 CCA (two)	Engine fuel priming pump	Load-sensing steering system
Brakes: Service - enclosed, sealed	Fenders (front/rear)	Muffler
Parking - mechanical on drive line	Hitch, drawbar	Radiator, unit serviceable
Bucket positioner, automatic	Horn, front warning (electrical)	S•O•S oil sampling valves for engine, transmission and hydraulic systems
Cab, ROPS (sound suppressed and pressurized) with:	Hour meter, electric	Starting aid, thermal
- ground level door release	Hydraulic diagnostic connectors	Steering stops, cushioned
- heater/defroster	Hydraulic oil cooler	Swing-out, hydraulically-driven fan
- rear window defroster, electric (North American-sourced machines only)	Hydraulic control, 2-valve, 1-lever	Switch, key start & stop
- personal storage space, cup holder	Implement control lever locks	Torque converter
- lighter	Implement positioner, two-position	Transmission, 4F/3R, autoshift, single lever control and kickdown button
- coat hook	Indicators:	Transmission neutralizer
- rear view mirrors (2 inside)	- air cleaner service	Vandalism protection, lockable service points
- tilt steering console	- coolant level	Warning indicators:
- seat, adjustable suspension (fabric or vinyl)	- hydraulic oil level sight gauge	- alternator
- seat belt, retractable	- transmission oil level gauge	- coolant temperature
- tinted safety glass	Instrumentation:	- engine oil pressure
- two door cab, fixed glass	- engine coolant temperature gauge	- parking brake
- wiper and washer, 2-speed plus intermittent, front and rear	- hydraulic oil temperature gauge	- service brake oil pressure
	- torque converter oil temp. gauge	- transmission oil temperature
	- fuel level gauge	
	Lift kickout, automatic	

## Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air conditioner (R-134a refrigerant)	Hydraulic control, 2-valve, 2-lever	Ride control system
Alternator, 75-amp	Hydraulic control, 3-valve, 2-lever	Seats:
Antifreeze/coolant, extended-life, protects to minus 50C (58F)	Hydraulic control, 3-valve, 3-lever	- Caterpillar Contour Series, fabric
Beacon light, rotating, magnetic-mount	Hydraulic third valve (for remote hydraulic functions)	- Caterpillar Contour Series, fabric, with air suspension
Buckets/ground engaging tools	Hydraulic oil cooler, heavy duty	Sliding door windows, (left and right)
Canopy, ROPS	Lights:	Sound suppression package
Counterweight, 175 kg (385 lb)	- directional, front/rear	Starting aid, engine coolant heater, 120V
Differential, Limited Slip	- flood (auxiliary, cab-mounted)	Steering, secondary
- front axle and/or rear axle	Load check valves (dealer installed)	Sun screen, rear
Differential, NoSpin, rear axle only	Low speed transmission	Tires:
Electrical accessories package (12V converter, accessory plug outlet, wiring)	Mirrors, external (two)	- bias ply, 17.5 - 25 and 20.5 - 25
Fenders, roading	Radio prep packages:	- radial, 17.5 - 25, 555/70 R25 and 20.5 - 25
Guards:	- for 12V installation, includes speakers, cable, mounting bracket, hardware, converter, and accessory plug. Radio not included.	Visor, sun (front)
- crankcase	- for 24V installation, same as above, but without converter or accessory plug.	
- power train	Remote Forward/Neutral/Reverse Transmission Control	
- driveshaft		
- lights (front)		
- windshield		
- heavy duty fan guard		
- vandalism protection (for use with ROPS canopy only)		

## Supplemental Specifications

	Change in Operating Weight		Change in Articulated Static Tipping Load	
	kg	lb	kg	lb
Air conditioner	+32	+70	+47	+103
Canopy, ROPS (less cab)	-199	-438	-185	-407
Counterweight, 175 kg/385 lb (removal)	-175	-385	-294	-647
Guard, crankcase	+15	+33	+22	+48
Guard, driveshaft	+43	+95	+12	+26
Guard, power train	+52	+114	+51	+112
Ride Control System	+40	+88	+28	+62
Secondary steering	+37	+81	+50	+110
Tires & 1-piece rims, 17.5 - 25, 12PR (L-2)	0	0	0	0
Tires & 1-piece rims, 17.5 - 25, 12PR (L-3)	+72	+158	+45	+99
Tires & 1-piece rims, 17.5 R25, radial (L-2)	+40	+88	+25	+55
Tires & 1-piece rims, 17.5 R25, radial (L-3)	+140	+308	+87	+191
Tires & 3-piece rims, 17.5 - 25, 12PR (L-2)	+124	+273	+78	+172
Tires & 3-piece rims, 17.5 - 25, 12PR (L-3)	+196	+431	+123	+270
Tires & 3-piece rims, 17.5 R25, radial (L-2)	+164	+361	+103	+227
Tires & 3-piece rims, 17.5 R25, radial (L-3)	+264	+581	+165	+363
Tires & 3-piece rims, 555/70 R25, radial (L-3)	+516	+1135	+322	+708
Tires & 3-piece rims, 20.5 - 25, 12PR (L-2)	+412	+906	+257	+565
Tires & 3-piece rims, 20.5 - 25, 12PR (L-3)	+616	+1355	+385	+847
Tires & 3-piece rims, 20.5 R25, radial (L-2)	+480	+1056	+300	+660
Tires & 3-piece rims, 20.5 R25, radial (L-3)	+652	+1434	+407	+895

# 924Gz Wheel Loader

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Materials and specifications are subject to change without notice.  
Featured machines in photos may include additional equipment.  
See your Caterpillar dealer for available options.

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