

924G

Wheel Loader

CAT®



Standard and High Lift Arrangement

Cat® 3056E DIT ATAAC Engine

Net power	90 kW/121 hp
Gross power	98 kW/132 hp
Bucket capacities	1.6 - 5.0 m ³
Operating weight	10 910 kg

924G Wheel Loader

Offering world class performance, value and reliability.

Caterpillar® Power Train

- ✓ The 924G uses a Caterpillar power train for reliable, long life. The Caterpillar 3056E DIT ATAAC six-cylinder engine and Cat power shift transmission are performance-matched to the torque converter and axles for smoother performance and greater operator comfort. **pg. 4**

VersaLink™ Loader Linkage

Loader linkage gives the 924G unsurpassed visibility, versatility and stability. The single piece boom-style lift arm design offers exceptional strength, rigidity and visibility. A high lift version is available for high-dump or long reach requirements. **pg. 6**

Work Tools

A wide range of Caterpillar Work Tools is available to meet the needs of your jobsite applications. The machine's quick coupler system allows the operator to quickly change from one high performance work tool to another without leaving the cab. **pg. 7**

Hydraulic System

Modular hydraulic system offers fast loading cycles, easy reconfiguration and exceptional ride control. **pg. 5**

Owning and Operating Costs

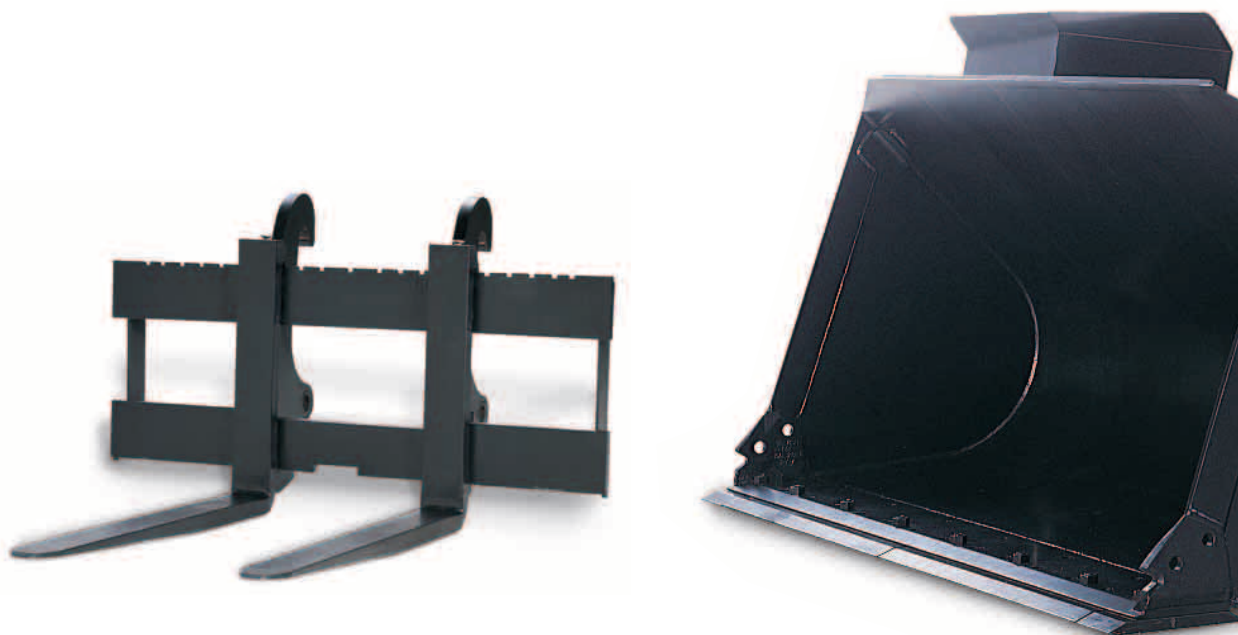
Extended service intervals, an advanced electronic warning system, lower fuel consumption and faster cycle times save you time and money. **pg. 10**

Environmentally Responsible Design

- ✓ Quiet operation, low engine emissions, less fluid disposal and clean service help you meet worldwide regulations and protect the environment. **pg. 12**

The 924G is one of the most versatile wheel loaders in the world. Size, power, performance and interchangeability of work tools make this machine ideal for a wide range of jobs.

✓ *New feature*



Operator Station

- ✓ The 924G operator station is ergonomically designed to create a comfortable work area. Easy-to-use machine controls and a new gauge console reduce operator fatigue and increase efficiency and productivity.
pg. 8

Serviceability

Perform daily maintenance with easy ground-level access to all major service points. Gull-wing doors provide excellent engine access and a swing-out fan simplifies radiator service.
pg. 11

Complete Customer Support

Caterpillar dealers offer unmatched customer support, with excellent warranty programs and fast parts availability, resulting in maximum uptime and minimum repair costs.
pg. 12



Caterpillar Power Train

Rugged, dependable Cat components deliver maximum rimpull to the ground and full power to the loader hydraulics.



Caterpillar Engine. The six-cylinder, 3056E direct injection, turbocharged (DIT) engine with air-to-air after cooler (ATAAC) has a proven reputation for reliability, durability and performance. Fuel injection is electronically controlled for precise timing.

Torque Rise. The engine features a 48% torque rise for increased power during heavy-duty use.

Emission Standards. The 3056E DIT ATAAC engine meets worldwide emissions standards.

Cylinders. Low cylinder pressure rise and low peak pressure provide outstanding reliability and durability.

Cooling System. Engine and cooling system are in separate compartments for clean, quiet operation and easy service.

Air-to-Air After Cooling. Air-to-air after cooling reduces engine emissions.

Electronic Control Module.

The Caterpillar engine control module not only controls the timing needs of the engine but also monitors critical systems to maintain optimum performance and provide engine protection.

Service Intervals. The normal engine oil change requirement is every 500 hours of operation.

Axles. Heavy-duty design features strong gears and bearings for durable performance. Oscillating rear axle helps assure four-wheel ground contact for optimum traction and stability.

Brakes. Oil-disc brakes are adjustment free and fully enclosed.

Optional Heavy-Duty Brakes. Optional heavy-duty brakes provide additional brake discs and oil cooler for severe applications.

Limited Slip Differentials. Optional front and rear Limited Slip differentials provide improved traction in poor or uneven underfoot conditions.

Duo-Cone Seals. Duo-Cone Seals keep oil in and contaminants out.

Transmission. Rugged, field-proven Caterpillar 4F/3R transmission uses heavy-duty components for durable and reliable operation. High-energy friction materials allow for better heat tolerance while thick reaction plates allow for better heat dissipation. The transmission is also designed for easy service and rebuild.

Electronic Clutch Pressure Control. Electronic Clutch Pressure Control (ECPC) manages shift torque providing exceptional smoothness.

Gears. High-contact ratio spur gears are precision ground and heat treated for quiet, durable operation.

Shifting Options. Operator can choose manual shift or two autoshift modes (full throttle or variable shift control). Full throttle selection provides maximum acceleration while variable selection increases fuel economy and improves operator comfort.

Hydraulic System

Modular system provides improved efficiency and greater control.



Precise Control. Designed by Caterpillar, the modular hydraulic system provides low effort operation and superior control.

Performance. Fast loader cycle times result in greater productivity. The hydraulic system is matched to the power train for outstanding performance.

Joystick Control. Low effort, joystick implement control improves efficiency with simultaneous lift and tilt functions.

Load-Sensing Steering. Load-sensing steering provides low effort operator control, making more power available for rimpull, breakout and lift forces.

Load-Sensing Implement Hydraulics. Load-sensing implement hydraulics provide exceptional second gear hydraulic-to-rimpull match for better material handling.

Pumps. Separate steering and implement pumps improve machine response.

Tilt Cylinder. A large tilt cylinder delivers exceptional backdrag performance.

Hoses. Caterpillar XT hoses and couplings provide rugged, reliable performance with significantly reduced risk of leaks and blown lines.

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

Two-Section Control Valve. The 924G comes equipped with a two-section control valve for lift and tilt functions. Up to two additional valve sections can be stacked on the existing ones.

Ground Level Access. The control valves feature convenient ground level access for easy modifications to the system.

Pressure Taps. Standard pressure taps allow quick diagnosis of the entire hydraulic system.

Diagnostics and Monitoring. The 924G is equipped with Scheduled Oil Sampling (S•O•SSM) ports for the hydraulic, transmission and engine oils.

Optional Ride Control System. The improved Ride Control system provides a comfortable ride at all speeds and improved hard bank digging. Three modes are available: auto, on and off.

VersaLink Loader Linkage

Linkage design offers unparalleled versatility without compromise to performance.



Linkage Design. Versatility is the key benefit of the VersaLink loader linkage. The 924G can be configured in many ways:

- with a Quick Coupler, work tool changes are quick and easy. In this configuration, the 924G offers the versatility of an integrated toolcarrier and the performance of a wheel loader;
- equipped with pin-on tools, like a bucket, the 924G becomes a dedicated wheel loader, with exceptional breakout force, tipping load and dump height;
- equipped with the High Lift VersaLink loader linkage option, the 924G is ideal for special applications that require more reach and lift height.

Reconfiguration. The VersaLink loader linkage can be reconfigured from pin-on to Quick Coupler or from standard linkage to high lift linkage with a minimum of new parts required.

Outstanding Performance. The VersaLink loader linkage is designed for exceptional loader performance in a wide range of applications, offering:

- increased breakout force to shorten cycle times and increase bucket fill factors;
- higher dump clearance for working in high lift applications that ordinary loaders cannot;
- more dig depth for better excavation performance, even when equipped with larger 20.5 x 25 tires;
- greater rackback angle for improved material retention, resulting in higher productivity;
- greater dozing angle for improved control of material when fine grading.

Visibility. The VersaLink loader linkage's sleek design gives unobstructed visibility to critical areas such as the bucket corners and fork tips for more productive material and pallet handling.

Parallel Lift. Parallel lift simplifies working with palletized or stacked material. Operators can concentrate on material placement while the load automatically remains parallel throughout the lift range. And, like an integrated toolcarrier, the 924G can easily manipulate loads.

Work Tools

Increase your productivity by performing a variety of jobs with one machine.

Versatility. With a variety of work tools offered by Caterpillar, the 924G is ideal for a wide range of applications.

Quick Coupler. Work tools can be changed quickly and easily with the machine's integral quick coupler system. A switch in the operator compartment activates a hydraulic cylinder for positive tool engagement or disengagement.

Buckets. With exceptional rimpull and high breakout and lift forces, the 924G demonstrates strong performance as a bucket loading machine. A wide range of Caterpillar buckets are available including:

- general purpose
- penetration
- light material
- multi purpose
- side dump
- high dump
- material handling

Material Handling. Exceptional visibility and heavy-lift capabilities enable you to work quickly and efficiently with the 924G as a material handler. A wide range of tools are available such as:

- pallet forks
- lumber and log forks, with or without top clamp, coupler-mounted or pin-on
- material handling arm
- tire loaders
- specialty clamps



Special Applications. Some of the numerous specialty tools available include:

- dozer blades
- snow plows
- hydraulic brooms
- asphalt cutter
- loader rakes

Auxiliary Hydraulics. Optional 3rd and 4th function hydraulics are available for use with work tools that require hydraulic power, such as rotary brooms, augers, high dump and side dump buckets.

Operator Station

Ergonomic design emphasizes comfort, visibility and easy operation.

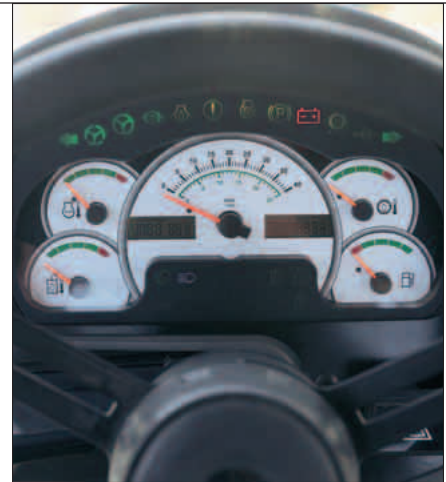


Cab. The ergonomic cab provides a comfortable work environment with large windows, spacious interior room, generous storage areas and low interior sound levels.

Access/Egress. Access/egress is through a two-door design. Both doors open fully and lock flush against the cab. Steps leading up to the cab are wide and angled out for secure footing.

Windows. Large windows improve visibility in all directions. The rear window features a standard electric defroster. Sliding glass is available as an option on the doors.

Visibility. Visibility to critical areas such as the bucket have been optimized. Lift arm spacing is wide and linkage geometry maximizes visibility throughout the production cycle.



Instrument Panel. Redesigned instrument panel is conveniently located with easy-to-read gauges and expanded warning/indicator and diagnostic functions.

Electronic Engine Speed Control.

A specific engine rpm can be set and maintained with a switch in the cab.

Steering System.

The load-sensing, closed-center steering system with flow amplification matches steering response to a wide variety of applications. The adjustable steering console lifts easily out of the way. Dual suspended brake pedals function as a brake and a transmission neutralizer so the operator can maintain high engine rpm for full hydraulic flow and fast cycle times.



Low Effort Operation. Joystick hydraulic controls provide ease of lift and tilt functions. A single joystick is standard. An integrated directional control switch on the joystick provides easy operation and enhanced productivity. A two lever control is optional.

Seat. The standard seat is available in cloth or vinyl with fully adjustable fore/aft position, seatback angle, bottom cushion height, armrest angle and suspension stiffness. Other seat options include:

- Cat Contour Seat which adds adjustable backrest and adjustable lumbar support
- Cat Contour Series Seat with added air suspension, electrically adjustable

Seat Belt. All seats include a comfortable 75 mm wide retractable seat belt.



Storage. Generous storage space includes a lockable compartment, coat hook and special molded compartments designed to hold a lunchbox/cooler, cup or can. A tool box is also provided.

Customize the Cab. The cab can be customized with:

- 12V converter for powering electronics such as cellular phones, two-way radios and music systems
- Radio installation package
- Sun visor for windshield
- Roll-down sun screen for rear window
- External mirror package
- Auxiliary lighting packages

Owning and Operating Costs

Cost saving features help improve your bottom line.



Low Fuel Consumption. The 3056E DIT ATAAC engine features low fuel consumption for more economical operation.

Increased Power, Faster Cycle Times. Higher horsepower and increased torque rise results in more power and faster cycle times, allowing the operator to get more work done in a day.

Extended Service Intervals. Service intervals have been extended to reduce machine service time and increase machine availability:

- 4000 hour hydraulic oil change
- 1000 hour hydraulic filter change
- 500 hour engine oil change

Smoother Transmission for Increased Productivity. A smoother shifting transmission provides a more comfortable work environment, allowing the operator to be more productive throughout the entire work shift.

Demand Fan. Demand fan changes speed to meet load requirements and save fuel.

Engine Derate Feature. Auto Derate monitors vital engine systems and will derate the engine horsepower up to 50% to protect the engine.

Product Link Option. Caterpillar's asset management or equipment management system called Product Link, enables dealers and their customers to track equipment for hours and location, and in some cases monitor machine health. This easy to use system provides information flow between a machine and the user through the internet based Dealer Storefront. This information helps lower operating costs through timely service/repairs and optimized machine use.

Machine Security System Option.

The Machine Security System (MSS) inhibits unauthorized machine use by immobilizing vital electrical circuits. Critical machine circuits are inhibited unless a valid key is used to start the machine.

Serviceability

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

Easy Access. Gull-wing engine enclosure doors with gas struts lift for exceptional access to filters and service points. Radiator and oil coolers are easily accessible for cleaning.

Simplified Routine Service. All service points are accessible from the ground level. Easily check radiator coolant, hydraulic oil and transmission oil levels with sight gauges.

Swing-out Cooling Fan. A swing-out cooling fan allows quick, easy cleaning and service of the radiator. The fan is hydraulically driven and separate from the engine compartment for exceptional low noise operation.

Optional Reversing Fan. Optional reversing capability of the fan cleans screens without interrupting machine operation.

S•O•S Ports. Scheduled Oil Sampling (S•O•S) ports are factory installed for improved access to engine, transmission and hydraulic oils. S•O•S ports make oil sampling quicker, cleaner and provide the best oil sample for analysis.

Oil Filters. Spin-on filters for engine oil, transmission oil and hydraulic oil are vertically mounted for easier servicing.

Self-Diagnostics. Self diagnostic transmission and data link allows quick and easy troubleshooting by service personnel. Service codes are easily accessed through the gauge console.



Extended Life Coolant/Antifreeze. Cat Extended Life Coolant/Antifreeze allows extended operation (up to 6000 hours) between changes.

Other Service Features. Other service features include:

- Maintenance-free driveshaft
- Stationary radiator and coolant hoses
- Standard hydraulic oil cooler
- Adjustment-free brakes
- Adjustment-free engine fuel system
- Grouped grease fittings
- Positive torque hose clamps
- Braided, color coded wiring

Environmentally Responsible Design

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

Low Fuel Consumption. The 924G is the top performer in its size class. The result is more work done in a day, less fuel consumed and minimal impact on the environment.

Low Exhaust Emissions. The Cat 3056E DIT ATAAC is a low emission engine designed to meet current worldwide emission regulations and is Stage II compliant.

Quiet Operation. The engine cooling system allows the engine to be fully enclosed, allowing less engine noise to escape. With the optional sound suppression package, the 924G is even quieter.

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

Fewer Leaks and Spills. Engine oil, transmission and hydraulic filters are positioned vertically and are easily removed without spillage. Cat O-ring face seals, XT hose and hydraulic cylinders are all designed to help prevent fluid leaks that can weaken the machine's performance and cause harm to the environment.

Rebuildable Components. All major components are designed for rebuildability.



Biodegradable Hydraulic Oil.

Caterpillar biodegradable hydraulic oil can be used in the 924G, providing an environmentally-sound alternative to mineral-based oils.

Complete Customer Support

Caterpillar dealer services ensure a longer machine operating life with lower costs.

Selection. Make detailed comparisons of machines before purchasing. What are the job requirements? What production is needed? What is the true cost of lost production? Your Cat dealer can give you precise answers to these questions.

Purchase. Look at the value the 924G offers. Consider the financing options your Cat dealer offers as well as day-to-day operating costs. Dealer support services can be included in the cost of the machine to yield lower equipment owning and operating costs over the life of the machine.

Operation. For the best operating techniques to increase productivity and your profit, turn to your Cat dealer for the latest training literature and knowledgeable staff.

Maintenance. Choose from a wide range of maintenance services at the time of machine purchase. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S•O•S Oil Analysis and Technical Analysis help avoid unscheduled repairs that can cost unnecessary time and money.

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



Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. Additionally, Caterpillar offers a line of genuine remanufactured components which can help lower repair costs.

Engine

Caterpillar four-stroke cycle, six cylinder 3056E DIT ATAAC diesel engine.

Net Power

ISO 9249 (1997)	90 kW/121 hp
EEC 80/1269	90 kW/121 hp

Gross Power 98 kW/132 hp

Bore 100 mm

Stroke 127 mm

Displacement 6 liters

- Ratings at 2300 rpm.
- Net power shown is the power available at the flywheel when the engine is equipped with air cleaner, fan, muffler and alternator.
- No derating required up to 3000 m altitude. Auto Derate protects hydraulic and transmission systems.
- The Caterpillar 3056E DIT ATAAC engine meets Stage II off highway emission regulations.

Features

- Electronically controlled rotary fuel pump
- Three-ring, controlled-expansion, lubricated pistons
- Gear-driven water and oil pumps
- One-piece cast iron cylinder heads with two valves per cylinder
- Fuel priming pump and fuel/water separator
- S•O•S sampling port for engine oil
- Replaceable dry liners.
- Cast aluminum valve cover
- Radiator can be easily accessed for cleaning

Transmission

Standard Transmission and Optional Low Speed Transmission. Maximum travel speeds (550/65 R25 tires)

Standard

	Standard	Low Speed
Forward	km/h	km/h
1	7	4
2	12	8
3	22	20
4	40	40

Reverse

1	7	4
2	12	8
3	22	21

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

Loader Hydraulic System

Output at 2300 engine rpm and 6900 kPa with

SAE 10W oil at 65°C 152 L/min

Maximum working pressure 25 900 kPa

Hydraulic cycle time

Raise	5.1 Seconds
Dump	1.4 Seconds
Lower, empty, float down	2.4 Seconds
Total	8.9 Seconds

Lift cylinders, double acting

Bore	101.6 mm
Stroke	810 mm

Tilt cylinders, double acting

Bore	133.4 mm
Stroke	945 mm

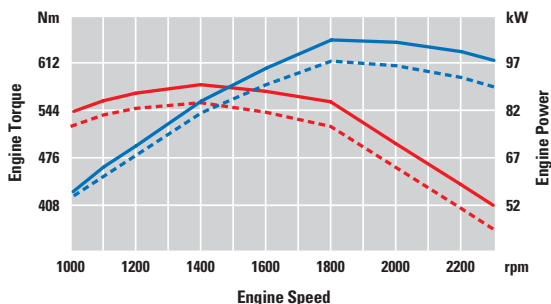
- Load-sensing system provides only the flow and pressure needed to move the load.
- Variable-displacement axial piston implement pump.
- Low effort, hydraulic joystick controls.
- Pilot shut-off switch disables implement functions for added safety.
- Hydraulic couplings with O-ring face seals.
- Space around radiator for easy cleaning.
- Improved Ride Control system available to provide improved ride with less spillage from bucket during load & carry operations and better hard bank capability.

Engine Torque

--- Net
— Gross

Engine Power

--- Net
— Gross



Tires

- 17.5 - 25
- 17.5 R25
- 550/65 R25
- 20.5 - 25
- 20.5 R25

- Other tire choices are available, contact your Cat Dealer for details.
- In certain applications, the loader's productive capabilities may exceed the tire's tonnes-km/h capabilities. Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model.

Steering

Minimum turning radius (over tire)	5070 mm
Steering angle, each direction	40°
Steering cylinders, two, bore	70 mm
Hydraulic output at 2300 engine rpm and 6900 kPa	106 L/min
Maximum working pressure	20 685 kPa

- 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.

Bucket Controls

Lift circuit

- Four positions: raise, hold, lower and float.
- Adjustable automatic kickout from horizontal to full tilt.

Tilt circuit

- Three positions: tilt back, hold and dump.
- Two speed dump for quick dumping with bucket and precise load control with forks or other work tools.
- Adjustable automatic bucket positioner to desired loading angle.
- Does not require visual spotting.

Controls

- Choice of two low effort control systems: a joystick or a 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.

Axles

- Fixed front, oscillating rear ($\pm 12^\circ$ with 17.5 - 25 L-2 tires).
- 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 with 17.5 tires, or 326 mm with 20.5 tires
- Limited Slip differentials are optional on front, rear or both axles.
- Rear axle trunnion has remote lubrication fitting.
- Planetary final drives are lubricated from the main oil sump.
- High contact gearset reduces noise levels during meshing.

Brakes

Service brake

- 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.
- Fully integrated with hydraulic system, no air system required.

Secondary brake

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

Parking brake

- Mechanical, shoe-type brake.
- Mounted on drive line for positive manual operation.
- Application of parking brake neutralizes the transmission.

Heavy-duty brake

- Optional heavy-duty brakes with integrated oil cooler.

Weights

Operating Weight 10 910 kg

Specifications shown are for 924G with optional counterweight, standard lubricants, full fuel tank, ROPS cab, 1.8 m³ bucket with bolt-on cutting edge, 80 kg operator and 550/65 R25 (L-3) tires.

Service Refill Capacities

	Liters
Fuel tank	225
Cooling system	40
Crankcase	20
Transmission	23
Front	21
Rear	21
Hydraulic system (including tank)	125
Hydraulic tank	70

ROPS/FOPS

- Caterpillar cab with integrated Rollover Protective Structure (ROPS/FOPS) are standard.
- ROPS meets ISO 3471:1994.
- FOPS meets ISO 3449:1992 Level II.

Sound

Operator Sound

- The operator sound level measured according to the procedures specified in ISO 6394:1992 is 74 dB(A), for cab offered by Caterpillar, with doors and windows closed.

Exterior Sound

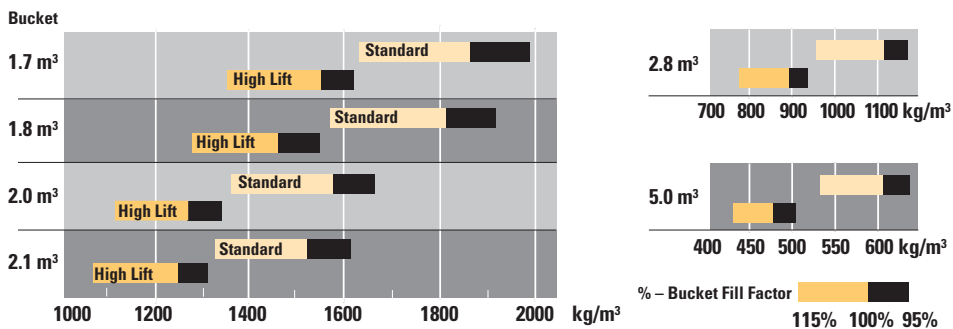
- Labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC
 - standard version 107 dB(A)
 - low sound or Blue Angel version 101 dB(A)

Supplemental Specifications

	Change in Operating Weight	Change in Articulated Static Tipping Load with Hook-On Bucket
	kg	kg
Air conditioner	32	43
Canopy, ROPS (less cab)	-199	-168
Counterweight, 175 kg (removal)	-175	-267
Guard, crankcase	15	20
Guard, driveshaft	17	3
Guard, power train	52	46
Ride Control System	40	25
Secondary steering (removal)	38	46
Tires, 1 piece rims		
17.5-25, 12PR (L-2)	-516	-293
17.5-25, 12PR (L-3)	-444	-252
17.5-R25, radial (L-2)	-476	-271
17.5 R25, radial (L-3)	-376	-214
Tires, 3 piece rims		
17.5-25, 12PR (L-2)	-392	-222
17.5-25, 12PR (L-3)	-320	-181
17.5-25, radial (L-2)	-352	-199
17.5 R25, radial (L-3)	-252	-143
550/65 R25, radial (L-2)	-60	-34
550/65 R25, radial (L-3)	0	0
20.5-25, 12PR (L-2)	-104	-59
20.5-25, 12PR (L-3)	100	200
20.5-25, radial (L-2)	-36	-20
20.5-25, radial (L-3)	136	78
Fenders, roading	39	50
Low sound package	104	116
Lighting AR, roading	12	11

Bucket Size Selector

Material Density

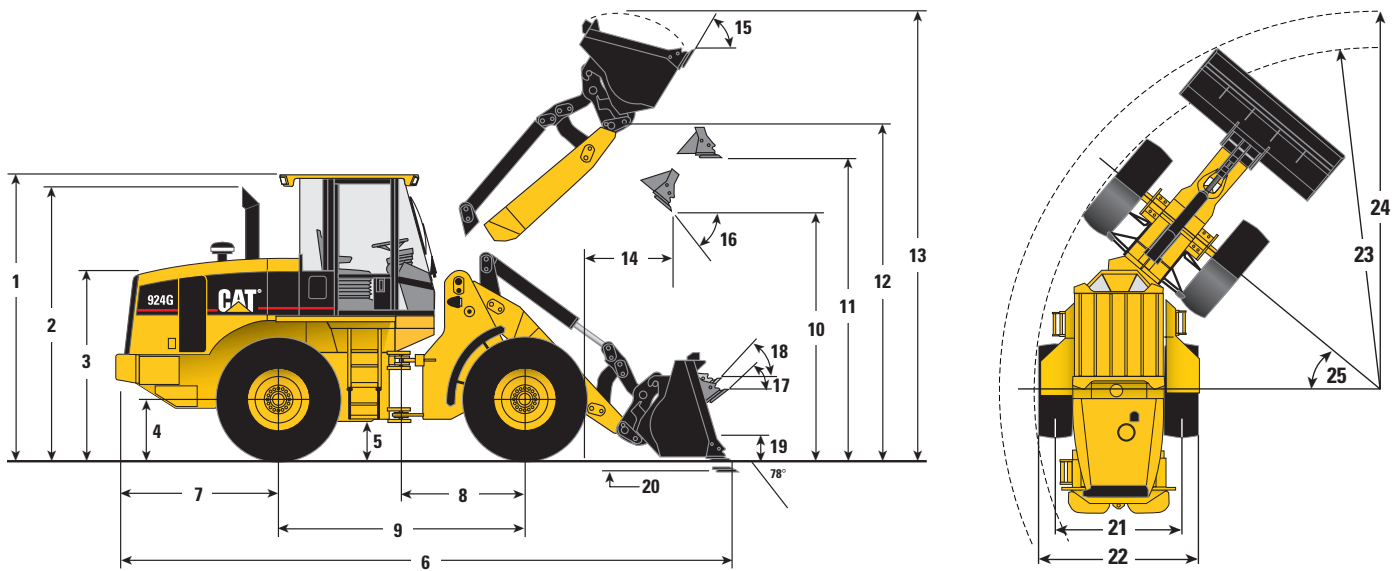


Typical Material Densities – Loose

	kg/m³
Basalt	1960
Bauxite, Kaolin	1420
Clay	
natural bed	1660
dry	1480
wet	1660
Clay and gravel	
dry	1420
wet	1540
Decomposed rock	
75% rock, 25% earth	1960
50% rock, 50% earth	1720
25% rock, 75% earth	1570
Earth	
dry, packed	1510
wet, excavated	1600
Granite	
broken	1660
Gravel	
pitrun	1930
dry	1510
dry, 6-50 mm	1690
wet, 6-50 mm	2020
Gypsum	
broken	1810
crushed	1600
Limestone	
broken	1540
crushed	1540
Sand	
dry, loose	1420
damp	1690
wet	1840
Sand and clay	
loose	1600
Sand and gravel	
dry	1720
wet	2020
Sandstone	1510
Shale	1250
Slag	
broken	1750
Stone	
crushed	1600
Wood chips	400

Dimensions with Bucket

Dimensions are for machines equipped with 550/65 R25 (L-3) tires and 1.8 m³ general purpose bucket with bolt on cutting edge. Refer to operating specifications on pg. 20-21 for bucket variations.

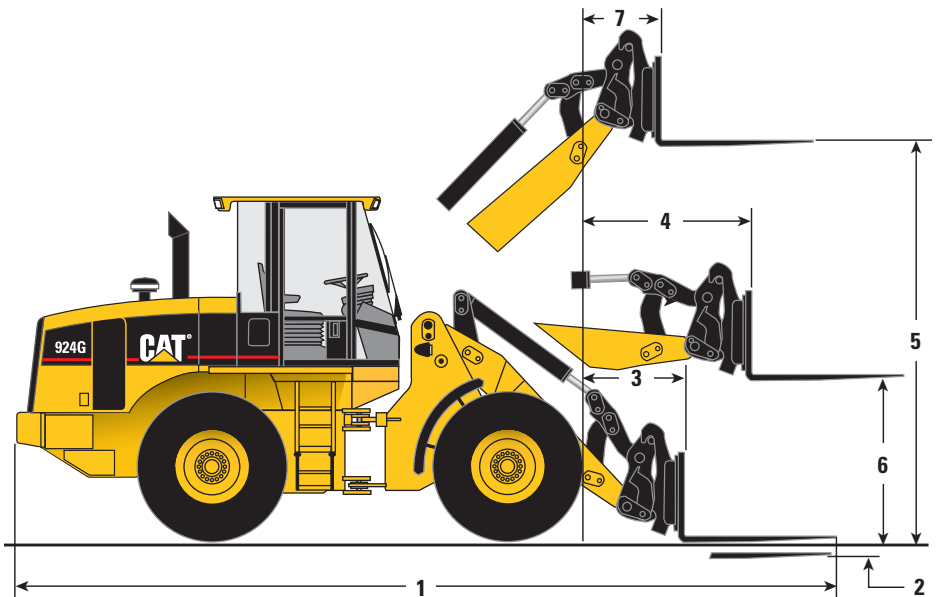


	Standard VersaLink	High Lift VersaLink	
1 Height to top of ROPS/FOPS	3176 mm	3176 mm	
2 Height to top of exhaust stack	3143 mm	3143 mm	
3 Height to top of hood	2078 mm	2078 mm	
4 Height to centre of axle	624 mm	624 mm	
5 Ground clearance	385 mm	385 mm	
6 Overall length	7164 mm	7657 mm	
7 Length - rear axle to bumper	1934 mm	1934 mm	
8 Centre line of front axle to hitch	1400 mm	1400 mm	
9 Wheel base length	2800 mm	2800 mm	
10 Dump clearance at maximum lift and 45° dump	2777 mm	3285 mm	
11 Bucket clearance at maximum lift and carry	3505 mm	4012 mm	
12 Bucket pin height at maximum lift	3830 mm	4337 mm	
13 Overall height - bucket raised	5127 mm	5633 mm	
14 Reach at maximum lift and 45° dump	1067 mm	1068 mm	
15 Rack back angle at maximum lift and level	58°	62°	
16 Dump angle at maximum lift	45°	45°	
17 Rack back angle at ground	50°	50°	
18 Rack back angle at carry	51°	54°	
19 Carry height	367 mm	524 mm	
20 Digging depth	117 mm	125 mm	
	17.5-25 12PR (L-2)	550/65 R25 (L-3)	20.5-25 12PR (L-2)
21 Width over tread center	1880 mm	1880 mm	1880 mm
22 Overall width over tires	2356 mm	2468 mm	2466 mm
23 Minimum turning radius over tires	5070 mm	5129 mm	5135 mm
24 Minimum turning radius over bucket	5603 mm	5603 mm	5603 mm
25 Steering angle - left/right	40°	40°	40°
Change in vertical dimension	-17	0	+51

Dimensions with Pallet Forks

Dimensions are for machines equipped with 550/65 R25 (L-3) tires. Dimensions vary with fork length. Refer to operating specifications chart below.

Standard VersaLink Fork Tine Length		
	1200 mm	1350 mm
1	7603 mm	7768 mm
2	84 mm	84 mm
3	969 mm	984 mm
4	1613 mm	1628 mm
5	3586 mm	3600 mm
6	1739 mm	1739 mm
7	814 mm	814 mm
High Lift VersaLink		
1	8102 mm	8267 mm
2	94 mm	94 mm
3	1468 mm	1483 mm
4	2004 mm	2019 mm
5	4094 mm	4109 mm
6	1739 mm	1739 mm
7	814 mm	814 mm



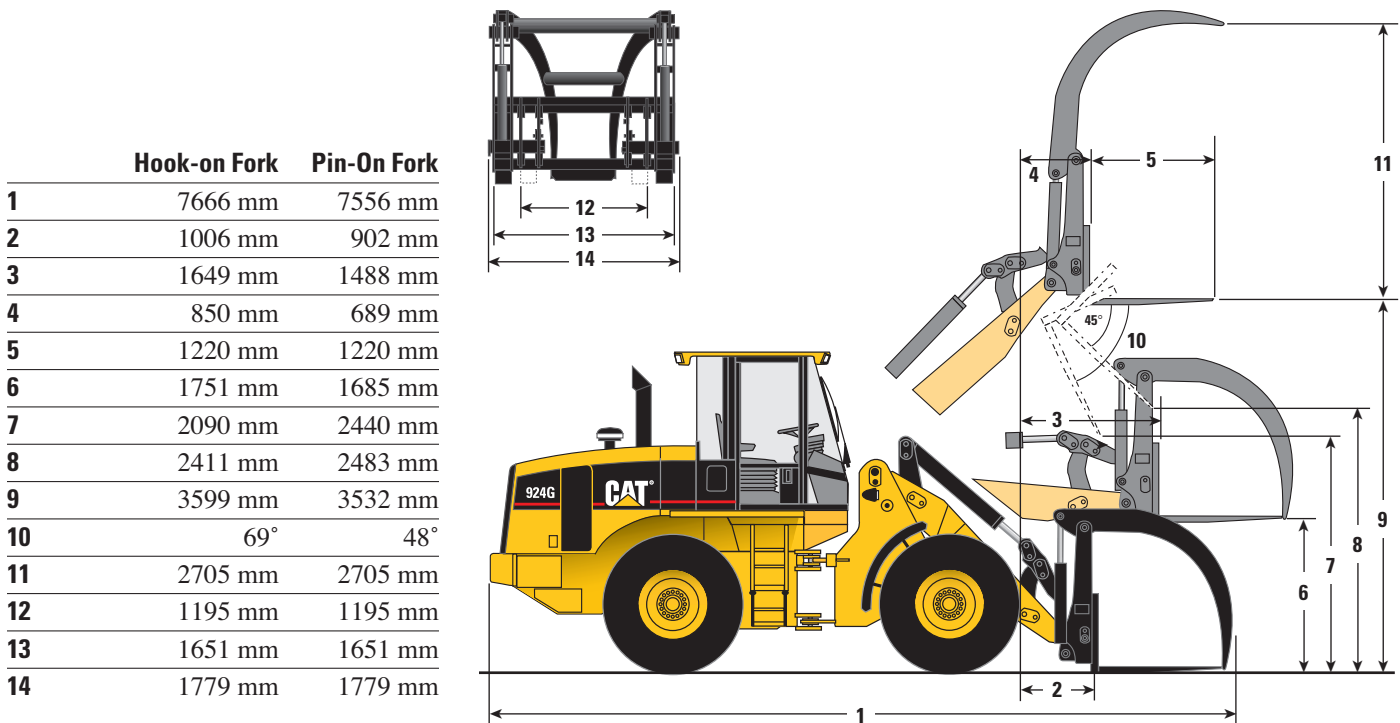
Operating Specifications with Pallet Forks

Standard VersaLink:	Fork Tine Length 1200 mm	Fork Tine Length 1350 mm
Operating load:		
Per EN 474-3, rough terrain (60% of FTSTL)	3103 kg	2978 kg
Per EN 474-3, firm and level ground (80% of FTSTL)	4137 kg	3970 kg
Load center	600 mm	675 mm
Static tipping load with level arms and forks, straight*	5910 kg	5680 kg
Static tipping load with level arms and forks, full 40° turn*	5171 kg	4963 kg
Operating weight*	10 620 kg	10 680 kg
High Lift VersaLink:		
Operating load:		
Per EN 474-3, rough terrain (60% of FTSTL)	2649 kg	2546 kg
Per EN 474-3, firm & level ground (80% of FTSTL)	3532 kg	3394 kg
Load center	600 mm	675 mm
Static tipping load with level arms and forks, straight*	5066 kg	4877 kg
Static tipping load with level arms and forks, full 40° turn*	4415 kg	4243 kg
Operating weight*	10 727 kg	10 787 kg

* Static tipping and operating weights shown are for a 924G with optional counterweight, lubricants, full fuel tank, ROPS cab, 80 kg operator, secondary steering and 550/65 R25 (L-3) tires. Tipping load is defined by SAE J732 JUN92.

Dimensions with Standard VersaLink and Millyard Forks

Dimensions are for machines equipped with 550/65 R25 (L-3) tires. Dimensions vary with fork length. Refer to operating specifications chart below.



Operating Specifications with Standard VersaLink and Millyard Forks

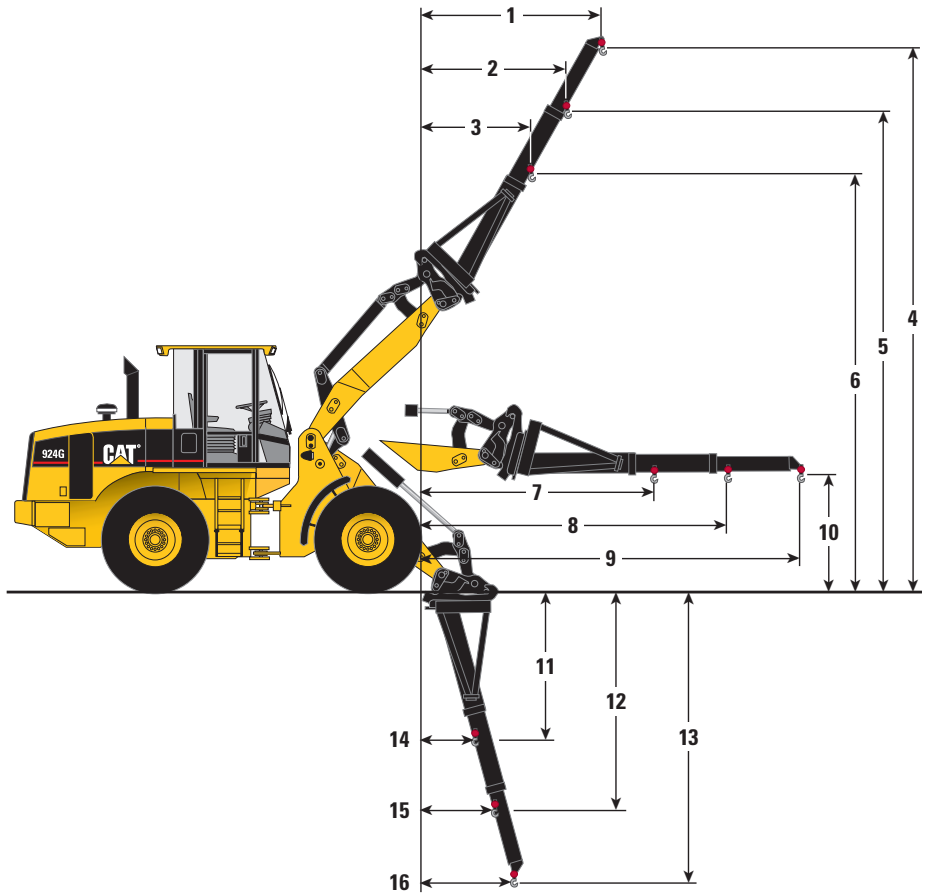
Fork Type	Hook-On Fork	Pin-on Fork
Operating load:		
Per EN 474-3, log handling, rough terrain (75% of FTSTL)	3372 kg	3700 kg
Per EN 474-3, log handling, firm and level ground (85% of FTSTL)	3822 kg	4193 kg
Load center	616 mm	592 mm
Static tipping load with level arm and forks, straight*	5221 kg	5707 kg
Static tipping load with level arm and forks, full 40° turn	4496 kg	4933 kg
Operating weight*	11 320 kg	11 208 kg

* Static tipping and operating weights shown are for a 924G with optional counterweight, lubricants, full fuel tank, ROPS cab, 80 kg operator, secondary steering and 550/65 R25 (L-3) tires. Tipping load is defined by SAE J732 JUN92.

Dimensions with Material Handling Arm

Dimensions are for machines equipped with 550/65 R25 (L-3) tires.
Refer to operating specifications chart below.

	Standard VersaLink	High Lift VersaLink
1	2407 mm	2128 mm
2	1933 mm	1722 mm
3	1459 mm	1316 mm
4	7146 mm	7803 mm
5	6266 mm	6890 mm
6	5387 mm	5977 mm
7	3273 mm	3664 mm
8	4272 mm	4663 mm
9	5272 mm	5663 mm
10	1551 mm	1551 mm
11	2189 mm	2113 mm
12	3139 mm	3017 mm
13	4090 mm	3921 mm
14	910 mm	1683 mm
15	1218 mm	2110 mm
16	1526 mm	2538 mm



Operating Specifications with Material Handling Arm

Standard VersaLink:	Retracted	Mid-Position	Extended
Operating load	1881 kg	1492 kg	1238 kg
Static tipping load, straight*	4304 kg	3416 kg	2836 kg
Static tipping load, full 40° full turn*	3762 kg	2984 kg	2476 kg
Operating weight*	10 578 kg	10 578 kg	10 578 kg
Equipped with High Lift VersaLink:			
Operating load	1659 kg	1340 kg	1125 kg
Static tipping load, straight*	3811 kg	3080 kg	2588 kg
Static tipping load, full 40° full turn*	3318 kg	2679 kg	2250 kg
Operating weight*	10 685 kg	10 685 kg	10 685 kg

* Static tipping and operating weights shown are for a 924G with optional counterweight, lubricants, full fuel tank, ROPS cab, 80 kg operator, secondary steering and 550/65 R25 (L-3) tires. Tipping load is defined by SAE J732 JUN92.

Machine stability and operating weights are affected by tire size, tire ballast and other work tools.

Standard VersaLink and Bucket

Specifications shown are for 924G with optional counterweight, standard lubricants, full fuel tank, ROPS cab, 80 kg operator, secondary steering and 550/65 R25 (L-3) tires.



Hook-on Buckets using Quick Coupler



Pin-on Buckets (values in brackets)

		General Purpose Buckets						Penetration	Waste/Ag	Woodchip
		Bolt-On Cutting Edge		Bolt-On Teeth and Segments*		Bolt-On Teeth*		Flush Mounted Teeth	Bolt-On Cutting Edge	Bolt-On Cutting Edge
Rated bucket capacity	m ³	1.8	2.1	1.8	2.1	1.7	2.0	1.7	2.8	5.0
Struck capacity	m ³	1.5	1.7	1.5	1.7	1.4	1.6	1.4	2.3	4.1
Bucket width	mm	2550	2550	2585	2585	2585	2585	2594	2550	3392
Dump clearance at full lift and 45° discharge	mm	2777 (2867)	2708 (2798)	2673 (2763)	2604 (2694)	2673 (2763)	2604 (2964)	2693 (2783)	2572 (2645)	2461 (2518)
Reach at full lift and 45° discharge	mm	1044 (937)	1112 (1005)	1147 (1040)	1215 (1108)	1147 (1040)	1215 (1108)	1162 (1055)	1250 (1143)	1210 (1100)
Reach at 45° discharge and 2130 mm clearance	mm	1540 (1480)	1570 (1513)	1584 (1529)	1610 (1559)	1584 (1529)	1610 (1559)	1611 (1555)	1624 (1574)	1506 (1449)
Reach with lift arms horizontal and bucket level	mm	2347 (2207)	2444 (2304)	2493 (2353)	2590 (2450)	2493 (2353)	2590 (2450)	2491 (2351)	2637 (2497)	2711 (2581)
Digging depth	mm	117 (117)	126 (123)	117 (117)	126 (123)	90 (90)	100 (98)	90 (90)	143 (140)	114 (140)
Overall length	mm	7168 (7024)	7268 (7128)	7310 (7170)	7414 (7274)	7289 (7149)	7393 (7253)	7287 (7147)	7476 (7336)	7527 (7420)
Overall height with bucket at full raise	mm	5127 (5037)	5237 (5149)	5127 (5037)	5237 (5149)	5127 (5037)	5237 (5149)	5127 (5037)	5359 (5271)	5620 (5518)
Loader turning radius with bucket in carry position	mm	11 197 (11 130)	11 253 (11 184)	11 314 (11 244)	11 372 (11 300)	11 314 (11 244)	11 372 (11 300)	11 306 (11 236)	11 370 (11 296)	12 156 (12 108)
Static tipping load, straight	kg	7856 (8274)	7763 (8199)	7690 (8107)	7595 (8029)	7873 (8298)	7702 (8137)	7925 (8371)	7508 (7927)	7248 (7589)
Static tipping load, full 40° turn	kg	6846 (7226)	6759 (7156)	6681 (7060)	6590 (6987)	6853 (7240)	6697 (7094)	6909 (7316)	6519 (6902)	6250 (6567)
Breakout force	kN	97 (112)	89 (102)	96 (111)	88 (101)	103 (120)	94 (108)	104 (121)	76 (86)	71 (79)
Operating weight	kg	10 913 (10 791)	10 962 (10 819)	10 048 (10 927)	10 097 (10 955)	10 962 (10 841)	11 011 (10 869)	10 904 (10 760)	11 075 (10 935)	11 439 (11 273)

* Dimension varies with bucket. Refer to chart above.
Dimensions are measured to the tip of the bucket teeth to provide accurate clearance data.
SAE standards specifies the cutting edge.

High Lift VersaLink and Bucket

Specifications shown are for 924G with optional counterweight, standard lubricants, full fuel tank, ROPS cab, 80 kg operator, secondary steering and 550/65 R25 (L-3) tires.



Hook-on Buckets using Quick Coupler



Pin-on Buckets (values in brackets)

		General Purpose Buckets						Penetration	Waste/Ag	Woodchip
		Bolt-On Cutting Edge		Bolt-On Teeth and Segments*		Bolt-On Teeth*		Flush Mounted Teeth	Bolt-On Cutting Edge	Bolt-On Cutting Edge
Rated bucket capacity	m ³	1.8	2.1	1.8	2.1	1.7	2.0	1.7	2.8	5.0
Struck capacity	m ³	1.5	1.7	1.5	1.7	1.4	1.6	1.4	2.3	4.1
Bucket width	mm	2550	2550	2585	2585	2585	2585	2594	2550	3392
Dump clearance at full lift and 45° discharge	mm	3285 (3375)	3216 (3307)	3181 (3271)	3112 (3202)	3181 (3271)	3112 (3202)	3201 (3291)	3080 (3170)	2969 (3042)
Reach at full lift and 45° discharge	mm	1045 (938)	1113 (1006)	1148 (1041)	1217 (1109)	1148 (1041)	1217 (1109)	1163 (1056)	1251 (1144)	1210 (1101)
Reach at 45° discharge and 2130 mm clearance	mm	1976 (1908)	2012 (1947)	2030 (1966)	2062 (2002)	2030 (1966)	2062 (2002)	2054 (1990)	2080 (2020)	1977 (1910)
Reach with lift arms horizontal and bucket level	mm	2738 (2598)	2835 (2695)	2884 (2744)	2981 (2841)	2884 (2744)	2981 (2841)	2882 (2742)	3028 (2888)	3101 (2972)
Digging depth	mm	125 (125)	133 (133)	125 (125)	133 (133)	100 (100)	108 (108)	100 (100)	150 (150)	125 (125)
Overall length	mm	7657 (7517)	7760 (7620)	7803 (7663)	7906 (7766)	7786 (7646)	7888 (7748)	7784 (7644)	7964 (7824)	8020 (7909)
Overall height with bucket at full raise	mm	5633 (5544)	5743 (5656)	5633 (5544)	5743 (5656)	5633 (5544)	5743 (5656)	5633 (5544)	5868 (5778)	6127 (6025)
Loader turning radius with bucket in carry position	mm	11 626 (11 596)	11 692 (11 657)	11 757 (11 719)	11 824 (11 781)	11 757 (11 719)	11 824 (11 781)	11 745 (11 707)	11 827 (11 781)	12 589 (12 567)
Static tipping load, straight	kg	6407 (6732)	6328 (6671)	6247 (6571)	6165 (6507)	6402 (6731)	6268 (6611)	6459 (6810)	6114 (6446)	5828 (6112)
Static tipping load, full 40° turn	kg	5554 (5852)	5478 (5795)	5394 (5691)	5316 (5631)	5542 (5844)	5419 (5735)	5602 (5925)	5267 (5582)	4983 (5249)
Breakout force	kN	97 (112)	89 (101)	96 (111)	88 (101)	103 (120)	94 (108)	104 (121)	76 (86)	71 (79)
Operating weight	kg	11 020 (10 899)	11 069 (10 927)	11 155 (11 034)	11 204 (11 062)	11 070 (10 948)	11 119 (10 976)	11 012 (10 867)	11 182 (11 043)	11 546 (11 380)

* Dimension varies with bucket. Refer to chart above.
Dimensions are measured to the tip of the bucket teeth to provide accurate clearance data.
SAE standards specifies the cutting edge.

Standard Equipment

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

Electrical

Alternator, 80-amp
Alarm, back-up
Batteries, maintenance-free, 12V,
950 CCA (2)
Directional signals, (front and rear)
Electrical system, 24V
Halogen working lights (front and rear)
Ignition key start/stop switch
Roading lights
Starting aid, thermal

Operator environment

Cab, ROPS (sound suppressed and
pressurized)

Gauges:

Engine coolant temperature
Hydraulic oil temperature
Torque converter oil temperature
Fuel level gauge
Speedometer
Digital tachometer
Digital hour meter/odometer

Warning indicators:

Primary steering malfunction
Electrical system voltage low
Coolant temperature
Engine oil pressure low
Parking brake applied
Brake charge pressure low
Transmission oil temperature
Transmission oil filter bypass
Hydraulic oil filter bypass
Adjustable tilt steering column
Coat Hook
Ground level door release
Heater/defroster
Horn, steering wheel mounted (electric)

Interior light
Interior and exterior auxiliary power
sockets
Lighter
Lunch box storage with cup holder
Pilot hydraulic implement controls
Rear window defroster, electric
Rear view mirrors (2 inside)
Seat, adjustable suspension, backrest,
armrest (fabric or vinyl)
Seatbelt, 75 mm, retractable
Tinted safety glass
Two door cab, fixed glass
Wet arm wiper/washer, intermittent,
front and rear

Power Train

Engine, Caterpillar 3056E DIT ATAAC
Low emission diesel engine
Turbocharged
Aftercooled
Electronically controlled
Air cleaner, dry type
Axle seal guards
Brakes, enclosed wet-disc full hydraulic
Differentials, conventional (front/rear)
Driveshaft, lubed for life
Engine fuel priming pump
Engine speed control
Fuel/water separator
Muffler
Radiator, unit serviceable
S•O•S oil sampling port:
engine oil
transmission oil
Torque converter
Transmission, 4F/3R, autoshift, single
lever control and kickdown button
Transmission neutralizer

Hydraulics

Hydraulic control, 2-valve, 1-lever,
with F/N/R
Hydraulic control lever lockout
Hydraulic diagnostic connectors
Hydraulic oil cooler
Load-sensing steering system
S•O•S oil sampling port, hydraulic oil

Other standard equipment

Antenna, for radio
Antifreeze/coolant, extended-life
protects to -36°C
Automatic bucket positioner/fork
positioner
Brakes, secondary and parking
Bucket positioner, automatic
Counterweight
Engine enclosure, lockable
Fenders, front
Hitch, recovery
Implement control lever locks
Loader linkage, VersaLink
Lift kickout, automatic
Machine Security System ready
Product Link ready
Quick Coupler
Remote grease lines
Steering stops, cushioned
Swing-out, hydraulically driven
demand fan
Vandalism protection,
lockable service points
Visual indicators:
air cleaner service
coolant level
hydraulic oil
transmission oil

Optional Equipment

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

Electrical

Alternator, 95-amp
Electrical accessories package
(12V converter, accessory
plug outlet, wiring)
Flood lights, auxiliary, cab-mounted

Operator environment

Air conditioner (R-134a refrigerant)
Canopy, ROPS

Mirrors, external (two)

Radio prep packages:

12V installation, includes speakers,
cable, mounting bracket, hardware,
converter and accessory plug.
Radio not included.

24V installation, same as above,
but without converter or
accessory plug.

Seats:

Caterpillar Contour Series, fabric
Caterpillar Contour Series, fabric,
with air suspension

Sliding door windows (left and right)

Sun screen, rear

Visor, sun (front)

Power Train

Differential, limited slip, front axle
and/or rear axle

Brakes, heavy duty

Fan, reversing

Low speed transmission

Ride control system

Starting aid, engine coolant heater,
120V

Hydraulics

Hydraulic control, two lever
(lift/tilt)

Hydraulic control, 3rd and 4th valve

Hydraulic oil cooler, heavy-duty

Load check valves

Other optional equipment

Antifreeze/coolant, extended-life,
protects to -50°C

Beacon light, rotating, magnetic-mount

Buckets/ground engaging tools

Counterweight, 175 kg

Dust bowl precleaner

Fenders, roading, rear

Guards:

Crankcase

Lights

Power train

Vandalism protection

(for use with ROPS canopy only)

Waste guarding package

Windshield

Linkage, high lift

Machine Security System

Material handling arm

Pallet forks, carriage

Product Link

Quick Coupler, wide

Sound suppression package

Steering, secondary

Tires:

Bias ply, 17.5 - 25 and 20.5 - 25

Radial, 17.5 - 25, 550/65 R25

and 20.5 - 25

Working lights, auxiliary,
cab-mounted

924G Wheel Loader

HEHL2833 (01/2003) hr

Featured photos of machines may not always include standard equipment.
See your Caterpillar Dealer for available options.
Materials and specifications are subject to change without notice.

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