



Cat[®] 924K

WHEEL LOADER

K SERIES – MAKING YOUR CHOICE EASY:

■ **Enjoy All Day Comfort** – Have a seat in the updated K Series Small Wheel Loader and enjoy excellent all around visibility and low-effort joystick controls that move with you on a fully adjustable seat suspension. A large spacious operator environment combined with Caterpillar’s exclusive hydraulic cylinder damping and smooth predictable controls make this the most comfortable seat on your job site.

■ **Work Made Easy** – Move more with Caterpillar’s patented quick loading Performance Series buckets and optimized Z-bar linkage that combines the digging efficiency of a traditional Z-bar with tool carrier capabilities. The parallel lift and high tilt forces throughout the working range allow you to safely and confidently handle loads with precise control.

Multi-function work has never been easier with dedicated pumps for each system and a flow sharing implement valve governed by an intelligent power management system. Simultaneously lift, steer and drive without compromise. The K Series Small Wheel Loader simply does what you ask it to do.

■ **Efficiently Powerful** – Experience hybrid like fuel efficiency with an intelligent hydrostatic power train and industry leading fuel savings through a lower maximum engine speed of just 1,600 rpm in Standard Mode. Power when you need it with Caterpillar’s exclusive Power-by-Range technology that increases power in Range 4 for improved speed on grade. For your toughest and most demanding applications a new Performance Mode will allow you to boost the power and hydraulic speed in all ranges to get the job done even quicker. Meets U.S. EPA Tier 3/EU Stage IIIA equivalent emission standards with a Cat[®] C7.1 ACERT[™] engine that is designed to manage itself so you can concentrate on your work.

■ **Customize Your Experience** – Meet your application requirements and individual preferences with Caterpillar’s industry first Hystat[™] Operator Modes featuring four unique power train settings. Select classic Torque Converter for smooth rollout, conventional Hystat for aggressive engine braking, an Ice Mode that maximizes your control on slippery underfoot, or default mode which blends the best of Hystat and Torque Converter characteristics. Fine tune machine performance with adjustments at your fingertips through the soft touch buttons and optional secondary display. Quickly set hydraulic response along with linkage kick-out positions, maximum wheel torque, and peak ground speed to efficiently perform a multitude of tasks.

Specifications

Engine

Engine Model	Cat C7.1 ACERT			
Power Mode	Standard Mode		Performance Mode	
Speed Range	Range 1-3*		Range 1-4	
Maximum Gross Power				
Maximum Engine Speed	1,600 rpm		1,800 rpm	
ISO 14396	101 kW	135 hp	105 kW	141 hp
ISO 14396 (DIN)	101 kW	137 hp	105 kW	143 hp
Rated Net Power	1,600 rpm			
SAE J1349	98 kW	131 hp	102 kW	137 hp
ISO 9249 (DIN)	99 kW	135 hp	103 kW	140 hp

Engine (continued)

	Standard Mode		Performance Mode	
Maximum Gross Torque				
ISO 14396	725 N·m	534 lbf·ft	725 N·m	534 lbf·ft
Maximum Net Torque				
SAE J1349	704 N·m	519 lbf·ft	704 N·m	519 lbf·ft
ISO 9249 (1977)/EEC 80/1269	711 N·m	524 lbf·ft	711 N·m	524 lbf·ft
Displacement	7.01 L	427 in ³	7.01 L	427 in ³

- Engine meets Tier 3/Stage IIIA equivalent emission standards.
- Net power shown is the power available at the flywheel when the engine is equipped with alternator and air cleaner.

*Range 4 power is boosted to be the same as Performance Mode.



924K Wheel Loader

Buckets

Bucket Capacities – General Purpose	1.7-2.5 m ³	2.2-3.2 yd ³
Bucket Capacities – Light Material	3.1-5.0 m ³	4.0-6.5 yd ³

Steering

Steering Articulation Angle (each direction)	40°	
Maximum Flow – Steering Pump	125 L/min	33 gal/min
Maximum Working Pressure – Steering Pump	24 130 kPa	3,500 psi
Maximum Steering Torque:		
0 degrees (straight machine)	50 375 N·m	37,155 lbf·ft
40 degrees (full turn)	37 620 N·m	27,747 lbf·ft
Steering Cycle Times (full left to full right):		
At 1,800 rpm: 90 rpm steering wheel speed	2.4 seconds	
Number of Steering Wheel Turns – full left to full right or full right to full left	3.5 turns	

Loader Hydraulic System

Maximum Flow – Implement Pump	150 L/min	40 gal/min
3rd Function Maximum Flow*	150 L/min	40 gal/min
4th Function Maximum Flow*	150 L/min	40 gal/min
Maximum Working Pressure – Implement Pump	26 000 kPa	3,771 psi
Relief Pressure – Tilt Cylinder	28 000 kPa	4,061 psi
3rd Function Maximum Working Pressure	26 000 kPa	3,771 psi
4th Function Maximum Working Pressure	26 000 kPa	3,771 psi
Hydraulic Cycle Times:	Standard Mode	Performance Mode
	at 1,600 rpm	at 1,800 rpm
Raise (ground level to maximum lift)	6.3 seconds	5.4 seconds
Dump (at maximum lift height)	1.7 seconds	1.5 seconds
Float Down (maximum lift to ground level)	2.6 seconds	2.6 seconds
Total Cycle Time	10.6 seconds	9.5 seconds

*Adjustable from 20% to 100% of maximum flow through the secondary display, when equipped.

Service Refill Capacities

Fuel Tank	195 L	51.5 gal
Cooling System	32 L	8.5 gal
Engine Crankcase	19.5 L	5.2 gal
Transmission (gearbox)	8.5 L	2.2 gal
Axles:		
Front	21 L	5.5 gal
Rear	21 L	5.5 gal
Hydraulic System (including tank)	160 L	42.3 gal
Hydraulic Tank	90 L	23.8 gal

Transmission

Forward and Reverse:		
Range 1*	1-13 km/h	0.6-8 mph
Range 2	13 km/h	8 mph
Range 3	27 km/h	17 mph
Range 4	40 km/h	25 mph

*Creeper control allows maximum speed range adjustability from 1 km/h (0.6 mph) to 13 km/h (8 mph) in Range 1 through the secondary display, when equipped. Factory default is 7 km/h (4.4 mph).

Tires

Standard Size	17.5 R25, radial (L-3)	
Other Choices Vary by Region:		
	20.5 R25, radial (L-2)	Flexport™ Gen II
	20.5 R25, radial (L-3)	17.5 R25, radial (L-2)
	20.5 R25, radial (L-5)	17.5 R25, radial (L-5)
	20.5-25 12PR (L-2)	550/65 R25 radial (L-3)
	20.5-25 12PR (L-3)	Skidder/Agriculture
	20.5-25 16PR (L-5)	

- 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 (ton-mph) capabilities.
- Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model.

Cab

ROPS	SAE J1040 MAY94, ISO 3471-1994
FOPS	SAE J/ISO 3449 APR98, Level II, ISO 3449 1992 Level II

- Cab and Rollover Protective Structures (ROPS) are standard.
- A semi-cab option is available.

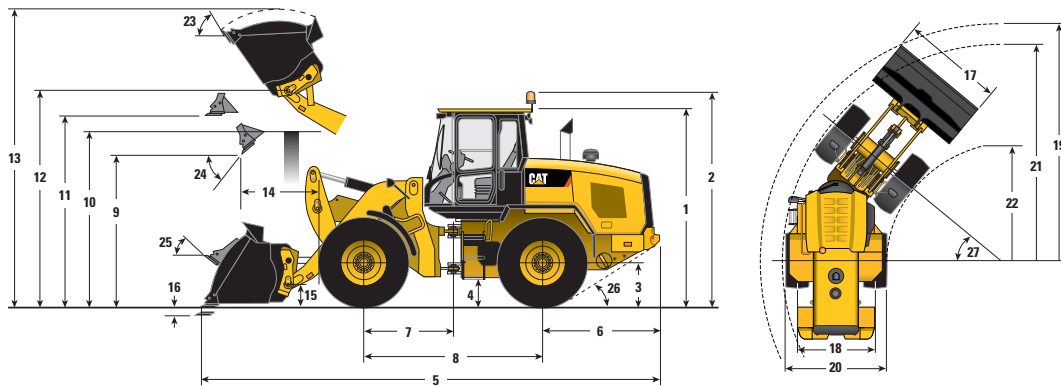
Sound

- The declared dynamic operator sound pressure level is 72 dB(A) when "ISO 6396:2008" is used to measure the value for an enclosed cab.
- The measurement was conducted at 70% of the maximum engine cooling fan speed, with the cab doors and cab windows closed. The cab was properly installed and maintained. The sound level may vary at different engine cooling fan speeds.
- The declared exterior sound power level is 104 dB(A) when the value is measured according to the dynamic test procedures and the conditions that are specified in "ISO 6395:2008."

Axles

Front	Fixed
	Open differential (standard)
	Locking differential (optional)
Rear	Oscillating ±11 degrees
	Open differential (standard)
	Limited slip differential (optional in some regions)

Dimensions and Operating Specifications (All dimensions are approximate. Dimensions vary with bucket and tire choice.)



	924K – 20.5 Tires		924K – 17.5 Tires	
** 1 Height: Ground to Cab	3340 mm	10'11"	3254 mm	10'8"
** 2 Height: Ground to Beacon	3707 mm	12'1"	3621 mm	11'10"
** 3 Height: Ground Axle Center	685 mm	2'2"	599 mm	1'11"
** 4 Height: Ground Clearance	397 mm	1'3"	311 mm	1'0"
* 5 Length: Overall	7374 mm	24'2"	7441 mm	24'4"
6 Length: Rear Axle to Bumper	1986 mm	6'6"	1986 mm	6'6"
7 Length: Hitch to Front Axle	1500 mm	4'11"	1500 mm	4'11"
8 Length: Wheel Base	3000 mm	9'10"	3000 mm	9'10"
* 9 Clearance: Bucket at 45 degrees	2857 mm	9'4"	2772 mm	9'1"
** 10 Clearance: Load Over Height	3308 mm	10'10"	3223 mm	10'6"
** 11 Clearance: Level Bucket	3525 mm	11'6"	3440 mm	11'3"
** 12 Height: Bucket Pin	3852 mm	12'7"	3767 mm	12'4"
** 13 Height: Overall	4997 mm	16'4"	4912 mm	16'1"
* 14 Reach: Bucket at 45 degrees	950 mm	3'1"	1016 mm	3'4"
15 Carry Height: Bucket Pin	447 mm	1'5"	458 mm	1'6"
** 16 Dig Depth	100 mm	3.9"	186 mm	7.3"
17 Width: Bucket	2550 mm	8'4"	2550 mm	8'4"
18 Width: Tread Center	1930 mm	6'3"	1940 mm	6'4"
19 Turning Radius: Over Bucket	5903 mm	19'4"	5920 mm	19'5"
20 Width: Over Tires	2540 mm	8'4"	2471 mm	8'1"
21 Turning Radius: Outside of Tires	5402 mm	17'8"	5402 mm	17'8"
22 Turning Radius: Inside of Tires	2851 mm	9'4"	2851 mm	9'4"
23 Rack Angle at Full Lift	53 degrees		53 degrees	
24 Dump Angle at Full Lift	50 degrees		50 degrees	
25 Rack Angle at Carry	43 degrees		45 degrees	
26 Departure Angle	33 degrees		33 degrees	
27 Articulation Angle	40 degrees		40 degrees	
* Tipping Load – Straight (ISO 14397-1)	8959 kg	19,744 lb	8588 kg	18,928 lb
* Tipping Load – Full Turn (ISO 14397-1)	7765 kg	17,113 lb	7441 kg	16,400 lb
* Nominal Material Density 110% Fill Factor	1858 kg	4,094 lb	1780 kg	3,923 lb
* Breakout	10 342 kg	22,794 lb	10 389 kg	22,898 lb
* Operating Weight	12 019 kg	26,490 lb	11 471 kg	25,281 lb

*Vary with bucket.

**Vary with tire.

Dimensions listed are for a Standard Lift machine configured with heavy counterweights, 80 kg (176 lb) operator, and Michelin 20.5 R25 (L-3) XHA2 or Goodyear 17.5 16PR tires where specified above. Bucket volumes are each with bolt-on cutting edges on a 1.9 m³ (2.5 yd³) Performance Series Pin-On bucket.

924K Wheel Loader

STANDARD EQUIPMENT

POWER TRAIN

- Auto idle shut down feature
- Cat C7.1 ACERT engine
 - Power modes (Standard and Performance)
 - Power by range (High Power in Range 4)
 - Turbocharged and aftercooled
 - Filtered crankcase breather
- Coded start (requires secondary display)
- Coolant protection to -34° C (-29° F)
- Enclosed wet disc full hydraulic brakes
- Fuel priming pump, automatic
- Hydraulically driven demand cooling fan
- Hydrostatic transmission with electronic control
 - Operator modes (Default, TC, Hystat, and Ice)
 - Directional Shift Aggressiveness (fast, medium, slow)
 - Rimpull control, adjust wheel torque
 - Creeper control, adjust ground speed
- Parking brake, electric
- Single plane cooling package wide six fins per inch density
- Throttle lock and max speed limiter

HYDRAULICS

- Automatic lift and bucket kickouts, adjustable in-cab
- Bucket and fork modes, adjustable in-cab
- Cylinder damping at kickout and mechanical end stops
- Fine mode control (fast, medium, slow) in fork mode
- Hydraulic response setting (fast, medium, slow)
- Hydraulic diagnostic connectors and S-O-SSM ports
- Load sensing hydraulics and steering

ELECTRICAL

- Alternator, 115 amp, heavy duty
- 12V power supply in cab (2)
- Batteries, 1,000 CCA (2) 24V system, disconnect switch
- Back-up alarm
- Emergency shutdown switch
- Halogen work and roading lights, LED rear tail lights
- Remote jump start post
- Resettable main and critical function breakers

OPERATOR ENVIRONMENT

- 75 mm (3 in) retractable seat belt, with audible alarm and indicator
- Automatic temperature control
- External heated mirrors with lower parabolic
- Hydraulic control lockout
- Interior cab lighting, door and dome
- Interior rearview mirrors (2)
- Lunch box storage
- Radio ready speakers
- Rear window defrost, electric
- Seat-mounted electronic implement controls, adjustable
- Column mounted multi function control – lights, wipers, turn signal
- Tilt and telescopic steering wheel
- Tinted front glass
- Wet arm wiper/washer, 2-speed and intermittent, front

OTHER STANDARD EQUIPMENT

- Large-access enclosure doors with adjustable close/open force
- Parallel lift loader linkage

OPTIONAL EQUIPMENT

- Auto lube, integrated in secondary display
- Auxiliary flow, third and fourth function, adjustable through secondary display
- Beacon light, strobe
- Cab, deluxe
 - Electrically adjustable external heated mirrors (2)
 - Secondary display to enable features and adjust parameters
 - Sunscreen, front and rear
- Camera, rearview
- Cold start package
- Corrosion protection package
- Counterweight, (heavy and logger)
- Coupler, (FusionTM and ISO 23727)
- Debris packages (low, medium, high)
- Differential lock, front axle
- Fenders (extended cover and full coverage)
- Guarding (machine and operator)
- Lights, auxiliary, halogen or LED with engine compartment lights
- Object Detection
- Product LinkTM PRO and ELITE with capabilities for software push, data logging, histogram and trend mapping
- Radio packages
- Rear wiper
- Ride Control System, adjustable through secondary display
- Seats
 - Deluxe seat – fully adjustable fabric air suspension seat with mid backrest and mechanical lumbar support
 - Premium seat – fully adjustable leather and fabric air suspension with high backrest and air lumbar support. Seat is heated and ventilated on bottom cushion and backrest.
- Steering
 - Dual mode and secondary
- CE Certification
- NOTE: Not all features are available in all regions.

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