

# **Cat**® 920

# **COMPACT WHEEL LOADER**

#### FEATURES:

- Cat<sup>®</sup> C3.6 Engine EU Stage V and U.S. EPA Tier 4 Final compliant.
- Cat Optimized Z-bar Loader Linkage The Cat Optimized Z-bar Loader linkage combines the digging efficiency of a traditional Z-bar with tool carrier capabilities for great performance and versatility. With parallel lift and high tilt forces throughout the working range you can safely and confidently handle loads with precise control. A High Lift option is available to extend both reach and dump clearance for more demanding tasks.
- Work Tools The 920 features the Cat exclusive, Performance Series Buckets, as well as high visibility pallet forks. These tools enhance productivity and are available with either an Integrated Toolcarrier (IT), ISO (wide) or Fusion<sup>™</sup> interface coupler style. Legacy coupler tools such as brooms, grapple buckets, multi-purpose buckets and other work tools remain compatible.
- Hydraulics and Controls State of the art electro-hydraulic system provides low effort, fine control with fast cycle times. All-in-one joystick helps keep eyes on the work. Operator can adjust machine responsiveness with the push of a button, which allows the operator to set up the machine exactly the way they want it based on the application. High Flow option allows for the use of even the most demanding work tools.

- Tuned Drivetrain Smooth shifting and powerful acceleration is matched with modulated hydrostatic braking in the inching/braking pedal, creating a rhythm for material moving. Creeper and electronic engine speed control makes broom and snow blower work easy. Operator tunes between smooth or aggressive shifting with the push of a button.
- Cab All around visibility is further enhanced with the availability of a rearview camera. The deluxe cab ensures operator comfort with a heated, air suspension seat and easy to use controls. Available features such as Implement and Hystat Aggressiveness, Ride Control, Lift and Tilt Kickouts, Fork/Bucket Mode and Rimpull Control allow the operator to customize the machine via a soft touch keypad.
- Serviceability Extended service intervals and excellent service access make daily checks quick and easy allowing you to get to work sooner.
- Efficiently Powerful with its high full turn tipping loads, powerful breakout forces and increased engine power delivers a balanced solution for all customer applications.
- Standard Fuel Savings Features such as Eco Mode, On Demand Cooling Fan, and Auto Engine Idle Shutdown make the 920 both powerful and fuel efficient.

### **Specifications**

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Engino		
Engine Model	Cat C3.6	
Maximum Gross Power:		
Maximum Engine Speed	2,350 RPM	
SAE J1995	92 kW	123 hp
ISO 14396	90 kW	121 hp
ISO 14396 (DIN)	90 kW	122 hp
Rated Net Power:		
Rated Engine Speed	2,200 RPM	
SAE J1349	90 kW	120 hp
ISO 9249	88 kW	118 hp
ISO 9249 (DIN)	88 kW	120 hp
Displacement	3.6 L	220 in <sup>3</sup>
Bore	98 mm	3.86 in
Stroke	120 mm	4.72 in

#### **Engine (continued)**

Maximum Gross Torque:		
SAE J1995	505 N⋅m	372 lbf-ft
ISO 14396	500 N⋅m	369 lbf-ft
Maximum Net Torque:		
SAE J1349	496 N⋅m	366 lbf-ft
ISO 9249	493 N⋅m	363 lbf-ft

• Engine meets Tier 4 Final/Stage V emission standards.

 Net power advertised is the power available at the flywheel plus front drive implement pump when the engine is equipped with fan, air cleaner, muffler and alternator.



# 920 Compact Wheel Loader

Buckets		
Bucket Capacities – General Purpose	1.3-1.9 m <sup>3</sup>	1.7-2.5 yd <sup>3</sup>
Bucket Capacities – Light Material	2.5-3.5 m <sup>3</sup>	3.3-4.6 yd <sup>3</sup>
Steering		
Steering Articulation Angle (each direction)	40 degrees	
Maximum Flow – Steering Pump	82 L/min	21.7 gal/min
Maximum Working Pressure –		
Steering Pump	22 000 kPa	3,190 psi
Steering Cycle Times (full left to full right):		
At 2,350 RPM: 90 RPM		
steering wheel speed	2.3 seconds	
Number of Steering Wheel Turns – full left		
to full right or full right to full left	3.4 turns	
Loader Hydraulic System		
Maximum Flow – Implement Pump	165 L/min	43.6 gal/min
3rd Function, Maximum Flow, Standard	95 L/min	25 gal/min
3rd Function, Maximum Flow, High	150 L/min	40 gal/min
4th Function, Maximum Flow	95 L/min	25 gal/min
Maximum Working Pressure –		
Implement Pump	28 000 kPa	4,061 psi
Relief Pressure – Tilt Cylinder	32 000 kPa	4,641 psi
3rd Function Relief Pressure	32 000 kPa	4,641 psi

32 000 kPa

4,641 psi

#### Hydraulic Cycle Times:

4th Function Relief Pressure

Raise (ground level to maximum lift)	4.8 seconds
Dump (at maximum reach)	1.8 seconds
Rack Back	2.2 seconds
Float Down (maximum lift to ground level)	2.7 seconds
Total Cycle Time	11.5 seconds

Note: All cycle times listed are with cylinder snubbing turned off.

#### **Service Refill Capacities**

Fuel Tank	165 L	43.6 gal	
Cooling System	21.5 L	5.7 gal	
Engine Crankcase	10 L	2.6 gal	
Axles:			
Front	17 L	4.5 gal	
Rear	17 L	4.5 gal	
Hydraulic System (including tank)	98 L	25.9 gal	
Hydraulic Tank	55 L	14.5 gal	
Transmission	3.2 L	0.8 gal	
Diesel Exhaust Fluid (DEF) Tank	18 L	4.8 gal	

· DEF used in Cat Selective Catalyst Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241-1.

#### Transmission

Forward and Reverse:		
Speed Range 1*	10 km/h	6.3 mph
Speed Range 2	20 km/h	12.5 mph
Speed Range 3	40 km/h	25 mph

\*Creeper Control allows speed control from a stand still up to 10 km/h (6.3 mph). The Creeper Control will only work in Range 1.

#### Axles

Front	Fixed	
	Locking differential (standard)	
Rear	Oscillating ±11 degrees	
	Locking differential (standard)	
Cab		
ROPS	ISO 3471:2008	
FOPS	EN ISO 3449:2008 (ISO 3449:2005)	

· Cab and Rollover Protective Structures (ROPS) are standard in North America and Europe.

 The declared dynamic operator sound pressure levels per ISO 6396:2008\*, when the cab is properly installed and maintained, is 77 dB(A).

• The labelled sound power level for the CE marked configurations when measured according to the test procedure and conditions specified in 2000/14/EC (as amended by 2005/88/EC) is 103 dB(A).

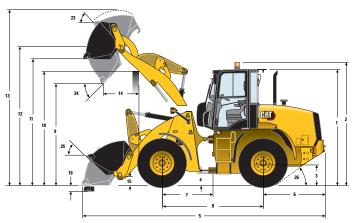
\*The measurements were conducted with the cab doors and windows closed.

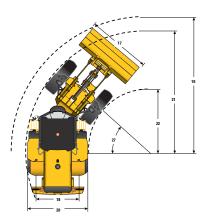
#### **Tires**

Standard Size	17.5 R25 L2 XTLA
Other Choices Include:	17.5 R25 L3 XHA2
	20.5 R25 L3 XHA3
	17.5-25 L2/L3 SGL
	20.5-25 L2/L3 SGL
	17.5-25 L3 HRL D/L-3A
	17.5 R25 L2 Snow
	20.5 R25 L2 Snow
	17.5 R25 Solid

- 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.

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





*Vary with bucket. **Vary with tire.	Standa – I		Standa – Is	ard Lift SO	Standa – Pir	ard Lift 1 On	Standard Lift – Fusion		Standa – Fus	ard Lift sion
Bucket @100% fill factor used for below data	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>	1.8 m <sup>3</sup>	<b>2.4 yd</b> <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>
Tire used for below data	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	20.5 R25	L3 XHA2
** 1 Height: Ground to Cab	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3155 mm	10'4"
** 2 Height: Ground to Beacon	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3345 mm	10'11"
** 3 Height: Ground Axle Center	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	685 mm	2'3"
** 4 Height: Ground Clearance	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	483 mm	1'7"
* 5 Length: Overall	6700 mm	21'11"	6756 mm	22'1"	6631 mm	21'9"	6877 mm	22'6"	6901 mm	22'7"
6 Length: Rear Axle to Bumper	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"
7 Length: Hitch to Front Axle	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"
8 Length: Wheel Base	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"
* 9 Clearance: Bucket at 45 degrees	2838 mm	9'3"	2800 mm	9'2"	2882 mm	9'5"	2708 mm	8'10"	2749 mm	9'0"
** 10 Clearance: Load over Height	3381 mm	11'1"	3381 mm	11'1"	3381 mm	11'1"	3381 mm	11'1"	3474 mm	11'5"
** 11 Clearance: Level Bucket	3562 mm	11'8"	3562 mm	11'8"	3563 mm	11'8"	3493 mm	11'5"	3586 mm	11'9"
** 12 Height: Bucket Pin	3818 mm	12'6"	3818 mm	12'6"	3818 mm	12'6"	3818 mm	12'6"	3911 mm	12'10"
** 13 Height: Overall	4847 mm	15'10"	4882 mm	16'0"	4825 mm	15'9"	4857 mm	15'11"	4950 mm	16'3"
* 14 Reach: Bucket at 45 degrees	933 mm	3'0"	974 mm	3'2"	881 mm	2'10"	972 mm	3'2"	898 mm	2'11"
15 Carry Height: Bucket Pin	353 mm	1'1"	345 mm	1'1"	353 mm	1'1"	355 mm	1'1"	448 mm	1'5"
** 16 Dig Depth	60 mm	2.3"	61 mm	2.4"	60 mm	2.3"	131 mm	5.1"	86 mm	3.3"
17 Width: Bucket	2401 mm	7'10"	2401 mm	7'10"	2401 mm	7'10"	2450 mm	8'0"	2450 mm	8'0"
18 Width: Tread Center	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"
19 Turning Radius: Over Bucket	5410 mm	17'8"	5425 mm	17'9"	5390 mm	17'8"	5506 mm	18'0"	5506 mm	18'0"
20 Width: Over Tires	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2289 mm	7'5"
21 Turning Radius: Outside of Tires	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4891 mm	16'1"
22 Turning Radius: Inside of Tires	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2524 mm	8'2"
23 Rack Angle at Full Lift	55 deg	grees	55 de	grees	55 de	grees	56 de	grees	56 de	grees
24 Dump Angle at Full Lift	47 deg	grees	47 de	grees	47 de	grees	46 de	grees	46 de	grees
25 Rack Angle at Carry	44 deg	grees	44 de	grees	44 de	grees	45 de	grees	45 de	grees
26 Departure Angle	33 deg	grees	33 de	grees	33 de	grees	25 de	grees	25 de	grees
27 Articulation Angle	40 deg	grees	40 de	grees	40 de	grees	40 de	grees	40 de	grees
*Tipping Load – Straight (ISO 14397-1)	7083 kg	15,609 lb	6917 kg	15,244 lb	7457 kg	16,434 lb	6597 kg	14,540 lb	6979 kg	15,382 lb
*Tipping Load – Full Turn (ISO 14397-1)	6026 kg	13,280 lb	5878 kg	12,955 lb	6364 kg	14,026 lb	5597 kg	12,335 lb	5930 kg	13,069 lb
*Breakout Force	8481 kg	18,691 lb	7934 kg	17,485 lb	9113 kg	20,085 lb	7625 kg	16,805 lb	7625 kg	16,805 lb
*Operating Weight	9843 kg	21,694 lb	9865 kg	21,742 lb	9656 kg	21,282 lb	9981 kg	21,998 lb	10 611 kg	23,387 lb

Dimensions listed are for a machine configured with bolt-on cutting edges, standard guarding, 80 kg (176 lb) operator and full fluids.

## 920 Compact Wheel Loader

*Vary with bucket. **Vary with tire.		High Lift High Lift High Lift High Lift — IT — ISO — Pin On — Fusion		High Lift – Fusion		High Lift – Fusion				
Bucket @100% fill factor used for below data	1.7 m <sup>3</sup>	2.2 yd <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>	1.8 m <sup>3</sup>	2.4 yd <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>	1.7 m <sup>3</sup>	<b>2.2 yd</b> <sup>3</sup>
Tire used for below data	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	17.5 R25	L2 XTLA	20.5 R25	L3 XHA2
** 1 Height: Ground to Cab	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3110 mm	10'2"	3203 mm	10'6"
** 2 Height: Ground to Beacon	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3300 mm	10'9"	3393 mm	11'1"
** 3 Height: Ground Axle Center	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	640 mm	2'1"	733 mm	2'5"
** 4 Height: Ground Clearance	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	438 mm	1'5"	531 mm	1'9"
* 5 Length: Overall	7154 mm	23'5"	7210 mm	23'7"	7085 mm	23'2"	7320 mm	24'0"	7344 mm	24'1"
6 Length: Rear Axle to Bumper	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"	1615 mm	5'3"
7 Length: Hitch to Front Axle	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"	1350 mm	4'5"
8 Length: Wheel Base	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"	2700 mm	8'10"
* 9 Clearance: Bucket at 45 degrees	3126 mm	10'3"	3089 mm	10'1"	3171 mm	10'4"	2997 mm	9'9"	2997 mm	9'9"
** 10 Clearance: Load over Height	3447 mm	11'3"	3447 mm	11'3"	3447 mm	11'3"	1915 mm	6'3"	2043 mm	6'7"
** 11 Clearance: Level Bucket	3851 mm	12'7"	3851 mm	12'7"	3852 mm	12'7"	3782 mm	12'4"	3875 mm	12'8"
** 12 Height: Bucket Pin	4106 mm	13'5"	4106 mm	13'5"	4106 mm	13'5"	4106 mm	13'5"	4199 mm	13'9"
** 13 Height: Overall	5135 mm	16'10"	5170 mm	16'11"	5114 mm	16'9"	5146 mm	16'10"	5239 mm	17'2"
* 14 Reach: Bucket at 45 degrees	1137 mm	3'8"	1178 mm	3'10"	1084 mm	3'6"	1176 mm	3'10"	1176 mm	3'10"
15 Carry Height: Bucket Pin	499 mm	1'7"	527 mm	1'8"	499 mm	1'7"	524 mm	1'8"	524 mm	1'8"
** 16 Dig Depth	214 mm	8.4"	214 mm	8.4"	213 mm	8.3"	283 mm	11.1"	190 mm	7.5"
17 Width: Bucket	2401 mm	7'10"	2401 mm	7'10"	2401 mm	7'10"	2450 mm	8'0"	2450 mm	8'0"
18 Width: Tread Center	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"	1800 mm	5'10"
19 Turning Radius: Over Bucket	5694 mm	18'8"	5722 mm	18'9"	5666 mm	18'7"	5784 mm	18'11"	5815 mm	19'0"
20 Width: Over Tires	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"	2259 mm	7'4"
21 Turning Radius: Outside of Tires	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"	4877 mm	16'0"
22 Turning Radius: Inside of Tires	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"	2563 mm	8'4"
23 Rack Angle at Full Lift	47 deg	grees	47 de	grees	47 de	grees	48 de	grees	48 de	grees
24 Dump Angle at Full Lift	48 deg	grees	48 de	grees	47 de	grees	46 de	grees	46 de	grees
25 Rack Angle at Carry	35 de	grees	36 de	grees	35 de	grees	37 de	grees	37 de	grees
26 Departure Angle	33 de	grees	33 de	grees	33 de	grees	33 de	grees	33 degrees	
27 Articulation Angle	40 deg	grees	40 de	grees	40 de	grees	40 de	grees	40 degrees	
*Tipping Load – Straight (ISO 14397-1)	6084 kg	13,409 lb	5940 kg	13,091 lb	6414 kg	14,137 lb	5688 kg	12,535 lb	6255 kg	13,784 l
*Tipping Load – Full Turn (ISO 14397-1)	5143 kg	11,334 lb	5014 kg	11,051 lb	5444 kg	11,997 lb	4791 kg	10,559 lb	5281 kg	11,638 l
*Breakout Force	8008 kg	17,649 lb	7486 kg	16,499 lb	8608 kg	18,970 lb	7260 kg	16,000 lb	7260 kg	16,000 l
*Operating Weight	10 223 kg	22,531 lb	10 245 kg	22,579 lb	10 036 kg	22,118 lb	10 361 kg	22,835 lb	11 287 kg	24,875 l

Dimensions listed are for a machine configured with bolt-on cutting edges, standard guarding, 80 kg (176 lb) operator and full fluids.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com** 

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

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