



# Cat<sup>®</sup> 938K

## WHEEL LOADER

### FEATURES:

- **Optimized Z-bar Linkage** – The new optimized Z-bar 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. High Lift versions are also available.
- **Work Tools** – A new line of optimized Performance Series Buckets, pallet and construction forks as well as a wide range of work tools are available in a Pin-On or Fusion Coupler interface.
- **Powerful Predictable Hydraulics** – The system senses demand and adjusts flow and pressure to match. Working with buckets, forks and other work tools has never been more efficient.
- **Intelligent Power Management** – A smooth, step-less electronically controlled hydrostatic transmission provides adjustable power to the ground and superb groundspeed control for fast digging cycles and the flexibility to efficiently perform a multitude of tasks.
- **Cab and Controls** – Large, spacious cab features excellent visibility to the front and rear, extremely low sound levels and low-effort ergonomic joystick controls so you can concentrate on your work. In cab adjustments are easy with intuitive controls and an easy to read optional display.
- **Serviceability** – Extended service intervals and excellent service access make daily checks quick and easy allowing you to get to work sooner.

## Specifications

### Engine

Engine Model	Cat <sup>®</sup> C6.6 ACERT	
Maximum Gross Power		
ISO 14396	129 kW	173 hp
ISO 14396 (DIN)	129 kW	175 hp
Rated Net Power @ 1,800 rpm		
SAE J1349 at Minimum Fan Speed	126 kW	169 hp
SAE J1349 at Maximum Fan Speed	116 kW	155 hp
ISO 9249/EEC 80/1269	127 kW	170 hp
ISO 9249 (DIN)	127 kW	173 hp
Maximum Gross Torque		
ISO 14396	825 N-m	608 ft-lb
Maximum Net Torque		
SAE J1349	802 N-m	591 ft-lb
ISO 9249/EEC 80/1269	811 N-m	598 ft-lb
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	6.6 L	402 in <sup>3</sup>

- Engine meets EPA Tier 4 Interim/EU Stage IIIB emission standards.
- Net power shown is the power available at the flywheel when the engine is equipped with alternator, air cleaner and diesel exhaust filter.

### Buckets

Bucket Capacities – General Purpose	2.5-3.2 m <sup>3</sup>	3.2-4.2 yd <sup>3</sup>
Bucket Capacities – Light Material	3.5-5.0 m <sup>3</sup>	4.5-6.5 yd <sup>3</sup>

### Weights

Operating Weight – Standard Lift	15 928 kg	35,104 lb
Operating Weight – High Lift	16 177 kg	35,653 lb

- Specifications shown are for a machine equipped with a 2.5 m<sup>3</sup> (3.2 yd<sup>3</sup>) general purpose Fusion bucket, bolt-on cutting edge, optional counterweights, additional guarding, 80 kg (176 lb) operator and Michelin 20.5 R25 (L-3) XHA2 tires.

### Steering

Steering Articulation Angle (each direction)	40°	
Steering Cylinder, Double-Acting:		
Bore Diameter	80 mm	3.1 in
Rod Diameter	50 mm	2.0 in
Stroke	399 mm	15.7 in
Maximum Flow – Steering Pump	130 L/min	34 gal/min
Maximum Working Pressure – Steering Pump	24 130 kPa	3,500 psi
Maximum Steering Torque:		
0 degrees (straight machine)	57 630 N-m	42,506 ft-lb
40 degrees (full turn)	42 570 N-m	31,398 ft-lb
Steering Cycle Times (full left to full right):		
At 1,800 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	3.3 turns	

# 938K Wheel Loader

## Loader Hydraulic System

Maximum Flow – Implement Pump	190 L/min	50 gal/min
3rd Function Maximum Flow*	190 L/min	50 gal/min
4th Function Maximum Flow	75 L/min	20 gal/min
Maximum Working Pressure – Implement Pump	28 000 kPa	4,061 psi
Relief Pressure – Tilt Cylinder	30 000 kPa	4,351 psi
3rd Function Maximum Working Pressure	28 000 kPa	4,061 psi
4th Function Maximum Working Pressure	28 000 kPa	4,061 psi
Lift Cylinder, Double-Acting:		
Bore Diameter	120 mm	4.7 in
Rod Diameter	65 mm	2.6 in
Stroke	789 mm	31.1 in
Tilt Cylinder, Double-Acting:		
Bore Diameter	150 mm	5.9 in
Rod Diameter	90 mm	3.5 in
Stroke	555 mm	21.9 in
Hydraulic Cycle Times:	At 1,800 rpm	At 1,000 rpm
Raise (ground level to maximum lift)	5.5 seconds	9.8 seconds
Dump (at maximum lift height)	1.5 seconds	2.6 seconds
Float Down (maximum lift to ground level)	2.7 seconds	2.7 seconds
Total Cycle Time	9.7 seconds	15.1 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	7.9 gal
Engine Crankcase	20 L	5.3 gal
Transmission (gearbox)	11 L	2.9 gal
Axles:		
Front	35 L	9.2 gal
Rear	35 L	9.2 gal
Hydraulic System (including tank)	170 L	44.9 gal
Hydraulic Tank	90 L	23.8 gal

## Transmission

Forward:		
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
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	20.5 R25, radial (L-3)
Other Choices Include:	20.5 R25, radial (L-2)
	20.5 R25, radial (L-5)
	20.5-25 12PR (L-2)
	20.5-25 12PR (L-3)
	20.5-25 16PR (L-5)
	650/65 R25 radial (L-3)
	Skidder/Agriculture
	Flexports Gen II

- 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 in North America and Europe.
- The declared dynamic operator sound pressure levels per ISO 6396:2008\*\*, when properly installed and maintained, are:
  - Standard cab: 68 ±3 dB(A)
  - Deluxe cab: 66 ±2 dB(A)

\*\*The measurements were conducted with the cab doors and windows closed and at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds.

## Operating Specifications

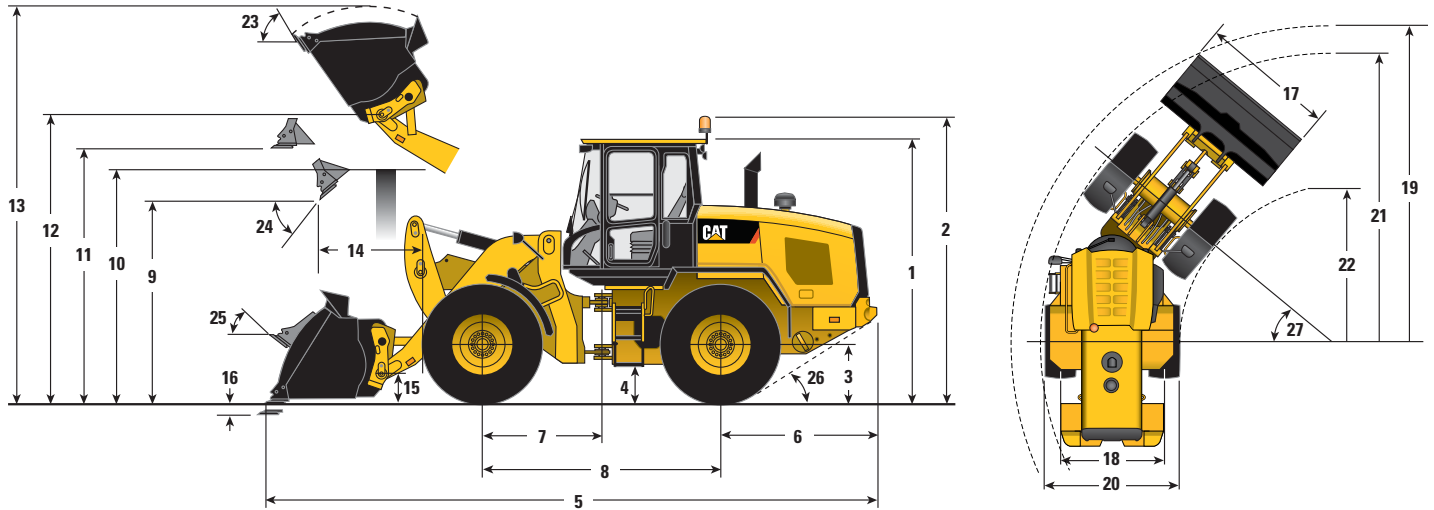
Tipping Load – Straight (ISO 14397-1)	11 209 kg	24,704 lb
Tipping Load – Full Turn (ISO 14397-1)	9527 kg	20,997 lb
Clearance – Full Lift and 45 Degree Dump	2834 mm	9 ft 3 in
Reach – Full Lift and 45 Degree Dump	1146 mm	3 ft 9 in
Breakout Force	13 170 kg	29,027 lb
Steering Articulation Angle (each direction)	40 degrees	

- Specifications shown are for a machine equipped with a 2.5 m<sup>3</sup> (3.2 yd<sup>3</sup>) general purpose Fusion bucket, bolt-on cutting edge, optional counterweights, additional guarding, 80 kg (176 lb) operator and Michelin 20.5 R25 (L-3) XHA2 tires.

## Axles

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

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



	Standard Lift		High Lift	
** 1 Height: Ground to Cab	3340 mm	(10'11")	3340 mm	(10'11")
** 2 Height: Ground to Beacon	3669 mm	(12'0")	3669 mm	(12'0")
** 3 Height: Ground Axle Center	685 mm	(2'2")	685 mm	(2'2")
** 4 Height: Ground Clearance	386 mm	(1'3")	386 mm	(1'3")
* 5 Length: Overall	7656 mm	(25'1")	8397 mm	(27'6")
6 Length: Rear Axle to Bumper	1963 mm	(6'5")	1968 mm	(6'5")
7 Length: Hitch to Front Axle	1525 mm	(5'0")	1525 mm	(5'0")
8 Length: Wheel Base	3050 mm	(10'0")	3050 mm	(10'0")
* 9 Clearance: Bucket at 45 degrees	2834 mm	(9'3")	3415 mm	(11'2")
** 10 Clearance: Loadover Height	3354 mm	(11'0")	3561 mm	(11'8")
** 11 Clearance: Level Bucket	3641 mm	(11'11")	4222 mm	(13'10")
** 12 Height: Bucket Pin	3969 mm	(13'0")	4550 mm	(14'11")
** 13 Height: Overall	5273 mm	(17'3")	5853 mm	(19'2")
* 14 Reach: Bucket at 45 degrees	1146 mm	(3'9")	1413 mm	(4'7")
15 Carry Height: Bucket Pin	467 mm	(1'6")	686 mm	(2'2")
** 16 Dig Depth	101 mm	(3.9")	135 mm	(5.3")
17 Width: Bucket	2750 mm	(9'0")	2750 mm	(9'0")
18 Width: Tread Center	2065 mm	(6'9")	2065 mm	(6'9")
19 Turning Radius: Over Bucket	6133 mm	(20'1")	6490 mm	(21'3")
20 Width: Over Tires	2675 mm	(8'9")	2675 mm	(8'9")
21 Turning Radius: Outside of Tires	5537 mm	(18'1")	5537 mm	(18'1")
22 Turning Radius: Inside of Tires	2852 mm	(9'4")	2852 mm	(9'4")
23 Rack Angle at Full Lift	54 degrees		53 degrees	
24 Dump Angle at Full Lift	49 degrees		47 degrees	
25 Rack Angle at Carry	45 degrees		50 degrees	
26 Departure Angle	33 degrees		33 degrees	
27 Articulation Angle	40 degrees		40 degrees	
Operating Weight	15 928 kg	(35,104 lb)	16 177 kg	(35,653 lb)

\*Vary with bucket.

\*\*Vary with tire.

Dimensions listed are for a machine configured with 2.5 m<sup>3</sup> (3.2 yd<sup>3</sup>) general purpose Fusion bucket, bolt-on cutting edge, optional counterweights, additional guarding, 80 kg (176 lb) operator and Michelin 20.5 R25 (L-3) XHA2 tires.

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