



# Cat<sup>®</sup> 950M

## Wheel Loader

**The Cat<sup>®</sup> 950M Wheel Loader offers significant fuel savings while lowering long-term costs. This machine meets emission standards and is designed to improve fuel economy without interrupting performance. The reliability, durability, and versatility results in a machine that is better built to meet your needs.**

### Proven Reliability

- Cat C7.1 engine\* offers increased power density with a combination of proven electronic fuel and air systems.
- Equipped with automatic Cat regeneration system, Cat Clean Emissions Module (CEM) with Diesel Particulate Filter (DPF), and Diesel Exhaust Fluid (DEF) tank and pump (Tier 4 Final and Stage V).
- Features an electric fuel priming pump and a fuel/water separator.
- Thorough component design and machine validation processes result in unmatched reliability and uptime.

### Durability

- Tough transmission and axles handle extreme applications.
- Automatic powershift (5F/3R) transmission features durable, long-lasting components.
- Full-flow hydraulic filtration system with additional loop filtration improves hydraulic system strength and component life.
- Full hydraulic enclosed wet-disc with Integrated Braking System (IBS) and brake wear indicators add valued safety on the job.

### Achieve Greater Productivity

- Increased engine power resulting in improved machine performance and response.
- With 5-speed transmission and lock-up clutch torque converter, power trains deliver smooth shifting, fast acceleration, and speed on grade for greater performance and fuel efficiency.
- Optimized Z-bar linkage provides high breakout force at ground level along with excellent parallelism for precise work tool control.
- Easy-to-load Performance Series Buckets improve material retention and reduce dig times, significantly improving productivity and fuel efficiency.
- Differential locks are activated on-the-go, which improves traction, resulting in increased productivity while reducing tire scuffing for reduced operating costs.
- Automatic idle engine shutdown system significantly reduces idle time, overall operating hours, and fuel consumption.

### Superior Fuel Efficiency

- Deep system integration results in lower fuel consumption.
- Significantly more fuel efficient than both the H and K Series loaders.
- Power dense engine burns less fuel by providing power and torque when needed.
- Significantly improved performance and fuel economy through engine speed and overall system heat load reduction.
- Standard productive economy mode delivers more fuel savings with minimal productivity impact.

### Increase productivity and efficiency up to 15% with Integrated Cat<sup>®</sup> Connect Technologies

- Developed to monitor, manage, and enhance your jobsite operations.
- Payload provides accurate weighing\*\* of the materials you are loading and hauling. Payload data is displayed in real-time to improve productivity and reduce overloading.
- Detect enhances awareness of the environment around working equipment and provides alerts to help keep people and assets safe on the jobsite.
- Link wirelessly connects you to your equipment, giving you access to essential information you need to know to run your business. Gain valuable insight into how your machine or fleet is performing, allowing you to make timely, fact-based decisions that can boost jobsite efficiency and productivity.
- Optional Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.

\*\*Not legal for trade.

\*Two engine options are available:  
Option 1 meets Brazil MAR-1 and UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.  
Option 2 meets U.S. EPA Tier 4 Final, either EU Stage V or EU Stage IV (Stage IV engines comply with the transition provisions of the EU nonroad emission regulation) emission standards.



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## Safety Features

- Cab access with wide door, optional remote door opening, and stair-like steps add solid stability.
- Floor-to-ceiling windshield, large mirrors with integrated spot mirrors, and standard rear-vision camera provide enhanced all-around visibility.
- Computerized monitoring system includes several warning indicators.
- Rear vision camera enhances visibility behind the machine, helping you work safely and confidently.
- Optional rear object detection radar system warns you of an object in critical zone while going in reverse, enhancing jobsite safety.

## Reduced Maintenance Time and Costs

- One-piece tilting hood makes cab access fast and easy.
- Electrical service centers enhance convenience and accessibility.
- Access to fuel fill and daily maintenance points means less servicing time is required.
- Extended service intervals including:
  - Engine oil and engine oil filter change interval up to 1,000 hours (Tier 4 Final and Stage V)
  - Hydraulic filter change interval up to 1,000 hours
  - Transmission oil change interval up to 2,000 hours
- Optional integrated Cat autolube system provides full lube system monitoring and diagnostic test visibility.
- Remote flash support
- Longer tire life with on-the-go traction aids

## Easy, Comfortable Operator Environment

- The next generation easily adjustable seat with updated styling and a revolutionary suspension system. It comes in three trim levels and can be equipped with a 4-point harness.
- Sound-suppression, seals, and damping cab mounts decrease noise and vibration for a quieter work environment.
- Steering wheel standard. The optional seat-mounted electro-hydraulic joystick steering system provides precision control and dramatically reduces arm fatigue, resulting in excellent comfort and accuracy.
- Electrohydraulic (EH) controls, parking brake, and Single Axis Lever (SAL) lift and tilt function allow for better handling and control management.
- Smart ergonomic controls are easy to use, intuitive, and user-friendly.
- Touchscreen multi-function color display keeps operators focused.
- The next generation of ride control works as a shock absorber, improving ride quality over rough terrain.
- Inclined steps and convenient grab handles ease accessibility to the operating space.
- Extended windows enhance visibility while convex and spot mirrors extend the driver's view on the sides and rear.

## Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
<b>OPERATOR ENVIRONMENT</b>			<b>HYDRAULICS</b>		
Cab, pressurized, sound suppression	✓		Hydraulic system, steering, load sensing	✓	
Door, remote opening system		✓	Ride Control, 2V	✓	
Touchscreen display	✓		3 <sup>rd</sup> and 4 <sup>th</sup> function w/ Ride Control		✓
Steering			Oil sampling valves, hoses, Cat XT™	✓	
Steering wheel	✓		<b>ELECTRICAL</b>		
EH: Joystick steering		✓	Starter, electric, heavy duty	✓	
EH: Controls, parking brake	✓		Starting and charging system, 24V	✓	
Seat, cloth, air suspension	✓		Lights: Halogen, 4 work lights, 2 roading lights, 2 rear vision lights	✓	
Seat, suede/cloth, air suspension, heated		✓	Lights: Additional 4 halogen work lights OR replace full lighting with LED packages		✓
Seat, leather/cloth, air suspension, heated/cooled		✓	Cold start, 120V, 240V		✓
Radio, AM/FM, Bluetooth®, CD/USB/MP3/Sirius XM, CB ready		✓	<b>MONITORING SYSTEM</b>		
Visibility: Mirrors, rear vision camera	✓		Gauges: Speedometer, temperature, fuel level, DEF level	✓	
Air conditioner, heater, defroster (auto temp, fan)	✓		Indicators: Regeneration, temperature, pressure, battery, oil, DEF	✓	
Windows, front, heavy duty, or full guards		✓	<b>ADDITIONAL EQUIPMENT</b>		
<b>CAT CONNECT TECHNOLOGIES</b>			Cat Autolube System		✓
Link: Product Link™	✓		Fenders, roading		✓
Link: VIMST™		✓	Guard, power train		✓
Detect: Rear vision camera	✓		Oil change, high speed engine		✓
Detect: Cat Rear Object Detection		✓	Precleaner, turbine		✓
Machine Security System		✓	Precleaner, trash		✓
Printer, Aggregate Autodig, Cat Production Measurement 2.0		✓	<b>LINKAGE</b>		
<b>POWER TRAIN</b>			High Lift		✓
Cat C7.1 engine, meets emission standards	✓		Forestry		✓
Emissions: CEM, DPF, DEF (Tier 4 Final/Stage V)	✓		Quick Coupler Ready		✓
Fuel priming pump, fuel/water separator	✓		Linkage, Z-bar, cast crosstube/tilt lever	✓	
Radiator, high debris, wide fin spacing		✓	Kickout, lift and tilt, automatic	✓	
Fan, variable pitch fan, auto/manual control		✓	<b>OTHER OPTIONAL CONFIGURATIONS</b>		
Torque converter, lock up clutch	✓		Industrial and Waste Handler		✓
Precleaner, engine air intake	✓		Forestry		✓
Brakes, full hydraulic, Integrated Braking System, wear indicators	✓		Steel Mill (T3 equivalent only)		✓
Axles, manual differential locks, ecology drains	✓		Auxiliary Counterweight		✓
Axles, automatic locks, oil cooler, temperature seals, guards		✓			

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.

For additional information, refer to the technical specifications brochures for the 950M model available at [www.cat.com](http://www.cat.com) or your Cat dealer.

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## Technical Specifications

### Engine – 950M (Tier 3/Stage IIIA Equivalent)

Engine Model	Cat C7.1	
Maximum Power @ 2,000 rpm – SAE J1995	196 kW	263 hp
Maximum Power @ 2,000 rpm – ISO 14396	195 kW	261 hp
Maximum Power @ 2,000 rpm – ISO 14396 (metric)	265 hp	
Maximum Net Power @ 2,000 rpm – SAE J1349	185 kW	248 hp
Maximum Net Power @ 2,000 rpm – ISO 9249	185 kW	248 hp
Maximum Net Power @ 2,000 rpm – ISO 9249 (metric)	252 hp	
Peak Gross Torque (1,400 rpm) – SAE J1995	1053 N·m	777 lbf·ft
Peak Gross Torque (1,400 rpm) – ISO 14396	1050 N·m	774 lbf·ft
Maximum Net Torque (1,400 rpm)	984 N·m	726 lbf·ft
Displacement	7.01 L	428 in <sup>3</sup>

### Weights

Operating Weight	19 213 kg	42,357 lb
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- Weight based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering, sound suppression, and a 3.1 m<sup>3</sup> (4.1 yd<sup>3</sup>) general purpose bucket with BOCE

### Transmission

Speed	km/h	mph	Speed	km/h	mph
Forward 1	6.9	4.3	Forward 5	39.5	24.5
Forward 2	12.0	7.5	Reverse 1	6.9	4.3
Forward 3	19.3	12.0	Reverse 2	12.0	7.5
Forward 4	25.7	16.0	Reverse 3	25.7	16.0

- Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 787 mm (31.0 in) roll radius

### Hydraulic System

Implement Pump Type	Variable Axial Piston	
Implement System:		
Maximum Pump Output (2,200 rpm)	286 L/min	76 gal/min
Maximum Operating Pressure	29 300 kPa	4,250 psi
Hydraulic Cycle Time – Total	8.9 Seconds	

### Bucket Capacities

Bucket Range	2.5- 9.2 m <sup>3</sup>	3.3- 12.0 yd <sup>3</sup>
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### Sound

With Cooling Fan Speed at Maximum Value:	
Operator Sound Pressure Level (ISO 6396:2008)	
Tier 3/Stage IIIA Equivalent	72 dB(A)
Tier 4 Final/Stage V	70 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)
Exterior Sound Pressure Level (SAE J88:2013)	75 dB(A)*
*Distance of 15 m (49.2 ft), moving forward in second gear ratio.	
With Cooling Fan Speed at 70% of Maximum Value:**	
Operator Sound Pressure Level (ISO 6396:2008)	69 dB(A)
Exterior Sound Power Level	104 dB(A)***
**For machines in European Union countries and in countries that adopt the "EU Directives."	
***European Union Directive "2000/14/EC" as amended by "2005/88/EC."	

### Engine – 950M (Tier 4 Final/Stage V)

Engine Model	Cat C7.1	
Maximum Power @ 2,100 rpm – SAE J1995	187 kW	250 hp
Maximum Power @ 2,100 rpm – ISO 14396	186 kW	249 hp
Maximum Power @ 2,100 rpm – ISO 14396 (metric)	253 hp	
Maximum Net Power @ 2,100 rpm – SAE J1349	171 kW	230 hp
Maximum Net Power @ 2,100 rpm – ISO 9249	171 kW	230 hp
Maximum Net Power @ 2,100 rpm – ISO 9249 (metric)	232 hp	
Peak Gross Torque (1,300 rpm) – SAE J1995	1235 N·m	911 lbf·ft
Peak Gross Torque (1,300 rpm) – ISO 14396	1231 N·m	908 lbf·ft
Maximum Net Torque (1,300 rpm)	1163 N·m	858 lbf·ft
Displacement	7.01 L	428 in <sup>3</sup>

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO<sub>2</sub> equivalent of 2.288 metric tonnes.

### Operating Specifications

Static Tipping Load – Full 40° Turn – with Tire Deflection	11 005 kg	24,262 lb
Static Tipping Load – Full 40° Turn – no Tire Deflection	11 760 kg	25,926 lb
Breakout Force	181 kN	40,690 lbf

- For a machine configuration as defined under "Weight."
- Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

### Service Refill Capacities

Fuel Tank	275 L	72.6 gal
DEF Tank	16 L	4.2 gal
Cooling System	59 L	15.6 gal
Crankcase	22 L	5.8 gal
Transmission	43 L	11.4 gal
Differentials and Final Drives – Front	43 L	11.4 gal
Differentials and Final Drives – Rear	43 L	11.4 gal
Hydraulic Tank	125 L	33.0 gal

### Dimensions

	Standard Lift		High Lift	
Height to Top of Hood	2697 mm	8'10"	2697 mm	8'10"
Height to Top of Exhaust Pipe	3413 mm	11'2"	3413 mm	11'2"
Height to Top of ROPS	3451 mm	11'4"	3451 mm	11'4"
Ground Clearance	367 mm	1'2"	367 mm	1'2"
Center Line of Rear Axle to Edge of Counterweight	1942 mm	6'4"	1942 mm	6'4"
Center Line of Rear Axle to Hitch	1675 mm	5'6"	1675 mm	5'6"
Wheelbase	3350 mm	11'0"	3350 mm	11'0"
Overall Length (without bucket)	6906 mm	22'8"	7488 mm	24'7"
Hinge Pin Height at Carry Height	647 mm	2'1"	782 mm	2'7"
Hinge Pin Height at Maximum Lift	4027 mm	13'3"	4527 mm	14'10"
Lift Arm Clearance at Maximum Lift	3280 mm	10'9"	3634 mm	11'11"
Rack Back at Maximum Lift	59 degrees		59 degrees	
Rack Back at Carry Height	49 degrees		49 degrees	
Rack Back at Ground	36 degrees		40 degrees	
Maximum Width over Tires (loaded)	2822 mm	9'3"	2822 mm	9'3"
Tread Width	2140 mm	7'0"	2140 mm	7'0"

- All dimensions are approximate and based on Michelin 23.5R25 XHA2 L3 radial tires.



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