

Cat[®] 986 Wheel Loader

The Cat® 986 Wheel Loader helps you move more material in less time, at a lower cost per ton, for a faster return on your investment. This machine offers significant fuel savings with durability to achieve multiple life cycles.

Proven Reliability

- The highly responsive Cat C15 engine is built and tested for maximum performance.
- Mechanically actuated Electronic Unit Injection (MEUI[™]) fuel system and ADEM[™] A5 electronic control module manage fuel delivery for optimum performance and quick engine response.
- Available in aggregate handler configuration with 14-ton payload.
- System match efficiency up to 60-ton rigid-frame trucks.

Durability

- Best-in-class transmission for long life and consistent, smooth shifting; specifically designed for mining applications.
- Moves material more efficiently with improved power and control.
- Durable construction withstands the toughest loading conditions and multiple life cycles.
- Transmission neutralizer pedal extends service brake life and allows full power during stationary loading.
- Load sense hydraulics maximize performance, lower heat and fuel consumption.
- Advanced filtration system for extended performance and reliability of the hydraulic system.

Achieve Greater Productivity

- Up to 10% more payload per pass, higher efficiency, and improved pass match.
- Field-proven lift arms for enhanced strength, uptime, and excellent visibility.
- Load-sensing hydraulic steering with 35-degree articulation for precise positioning.
- Maximum responsiveness with Steering and Integrated Control (STICTM), combining directional, gear, and steering controls in a single joystick.
- Most advanced payload weight measuring system available.

- Performance Buckets for superior digging, higher bucket fill factors, and reduced dig times.
- Cat Advansys[™] ground engaging tools (GET) protect components and reduce operating costs.
- Excellent visibility to the bucket edges and work area.
- Convenient, responsive, electro-hydraulic controls increase operator productivity.

Superior Fuel Efficiency

- Up to 20% less fuel consumption.
- Best-in-class efficiency while truck loading.
- Torque converter with lock-up clutch improves travel speed, cycle times.
- Engine Idle Shutdown saves fuel from unnecessary idling. Move up to 10% more material per gallon of fuel.
- Consistent performance and efficiency with lower system heat.

Increase Productivity and Efficiency with Integrated 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.
- VisionLink[®] 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.
- 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.



Safety Features

- Standard stairway lighting.
- Left- and right-hand stairs with 45-degree angle.
- Rear vision camera system.
- Large front and side windows.
- Pressurized cabin with filtered and reduced sound levels.

Reduced Maintenance and Other Costs

- Up to 10% lower maintenance costs.
- Advanced filtration system for extended performance.
- Extended service intervals for fluids and filters.
- Ground level or platform access to transmission control valves.
- Grouped service points.
- Centralized, ground level grease points and remote pressure taps.
- Ground electrical service center.
- Reduced waste with maintenance-free or extended-maintenance batteries.
- Swing-out engine compartment service doors.
- Tire pressure monitoring to enhance tire life.
- Longer life, rebuildability, and high resale value.
- Electro-hydraulic controls.

Easy, Comfortable Operator Environment

- Best-in-class operator comfort and ergonomics.
- Integrated steering and transmission controls.
- Convenient, automatic, inside-the-cab implement kickouts.
- Easy-to-use soft detent controls.
- Comfort Series III seats with extra thick, contoured cushions.
- Air suspension system.
- Easy-to-reach levers and controls with six-way adjustment.
- Seat-mounted implement pod with STIC steering.
- Ergonomic switch placement and displays with large backlit switches and LED indicators.
- Two-position rocker switch activates the electro-hydraulic parking brake.
- Automatic cab temperature controls.
- Precise machine control by load-sensing hydraulic steering system.
- Fold-up STIC steer/armrest.

PURPOSE-BUILT SPECIALTY ARRANGEMENTS

Block Handler

- Delivers stability and durability with an optimized counterweight for block handling applications.
- An additional hydraulic valve with the Quick Coupler allows the operator to switch work tools and immediately lock the work tool.
- Larger tilt and lift cylinders on the linkage help improve load control and ensure safe and long lasting operation.
- Ride control acts as a shock absorber, providing the operator with a smoother ride over rough terrain.
- Linkage layout designed to maximize lift capability in block handling application.
- High load stresses are absorbed by solid steel lift arms.
- Enhanced strength in key pin areas through the use of one-piece castings.
- Stress released lift arms increase durability and lengthen time to repair.

Standard and Optional Equipment

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

	Standard	Optional
ELECTRICAL		
Alarm, back-up	\checkmark	
Alternator, single 145 amp	\checkmark	
Converter, 10/15 amp, 24V to 12V	\checkmark	
Lighting system (halogen, work lights, access and service platform lighting)	√	
Starting and charging system, 24V	\checkmark	
Starter emergency start receptacle	\checkmark	
OPERATOR ENVIRONMENT		
Air conditioner	\checkmark	
Cab precleaner		\checkmark
Cab, sound suppressed and pressurized, integrated rollover protective structure (ROPS/FOPS)	\checkmark	
Cat Vision		\checkmark
Cat Production Measurement ready	\checkmark	
Heater, defroster	\checkmark	
Horn, electric	~	
LED warning strobe		~
Lights, directional	✓	
Lunchbox, beverage holders	✓	
Mirrors, handrail mounted		\checkmark
Mirrors, rearview (externally mounted)	✓	
Radio, AM/FM/CD/MP3, Bluetooth® with Satellite Sirius		\checkmark
Radio, CB ready		\checkmark
Rear vision camera system	\checkmark	
Seat, Cat Comfort (cloth), air suspension, six-way adjustable	~	
Seat belt minder	\checkmark	
Seat belt, retractable, 76 mm (3 in) wide	\checkmark	
STIC System	\checkmark	
UV glass	\checkmark	
Wet-arm wipers/washers (front and rear) – intermittent front and rear wipers	\checkmark	
Window pull-down visor		✓
POWER TRAIN		
Antifreeze -50° C (-58° F)		\checkmark
Brakes, oil-cooled, multi-disc, service/secondary	\checkmark	

	Standard	Optional
POWER TRAIN (CONTINUED)		
Case drain screens	\checkmark	
Cat Production Measurement		\checkmark
Crankcase guard	\checkmark	
Electro hydraulic parking brake	\checkmark	
Engine block heater 120V or 240V		\checkmark
Engine, C15 MEUI diesel, turbocharged/ aftercooled	~	
Engine oil change system, high speed, Wiggins		\checkmark
Ground level engine shutoff	\checkmark	
High ambient cooling – software		\checkmark
Turbine precleaner, engine air intake	✓	
Starting aid, ether, automatic	~	
Torque converter, neutralizer	✓	
Transmission, planetary powershift, 4F/3R electronic control	√	
Manual switch and automatic fuel priming	\checkmark	
ADDITIONAL EQUIPMENT		
Automatic bucket lift kickout/positioner	✓	
Cat Clean Emission Module (CEM)	\checkmark	
Cold weather starting (extra two batteries)		\checkmark
Demand fan, hydraulically driven	\checkmark	
Doors, service access (locking)	\checkmark	
Ecology drains for engine, radiator, hydraulic tank	✓	
Fast fill fuel system (Shaw-Aero)		✓
Front and rear roading fenders		\checkmark
Hitch, drawbar with pin	<u> </u>	
Hydraulic, steering and brake filtration/ screening system	~	
Oil sampling valves	✓	
Premixed 50% concentration of extended life coolant with freeze protection to -34° C (-29° F)	✓ 	
Rear access to cab and service platform	✓	
Steering, load sensing	✓	
Tire Pressure Monitoring System		✓
Toe kicks	✓	
Wheel chocks		✓
Vandalism protection caplocks	✓	
OTHER OPTIONAL CONFIGURATIONS		
Aggregate handler		✓
Block handler		\checkmark

Technical Specifications

Engir	ie	
Engine Model	C 1	15
Peak Power Speed	1,600 rpm	
Gross (SAE J1995:2014)	340 kW	456 hp
Gross (SAE J1995:2014) (DIN)		462 hp
Engine (ISO 14396:2002)	335 kW	449 hp
Engine (ISO 14396:2002) (DIN)		455 hp
Rated Speed	2,000 rpm	
Bore	137 mm	5.4 in
Stroke	171.5 mm	6.75 in
Displacement	15.2 L	927 in ³
Peak Torque (1,200 rpm) – SAE J1995	2411 N⋅m	1,778 lb-ft
Torque Rise	16	%

Two engine emission options are available:

1. Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.

2. Meets Brazil MAR-1 emission standards, equivalent to China Nonroad Stage III, U.S. EPA Tier 3 and EU Stage IIIA.

Operating Specifications			
Operating Weight – Standard	44 355 kg	97,785 lb	
Operating Weight – High Lift	47 175 kg	104,005 lb	
Rated Payload – Standard (Quarry Face)	10 tonnes	11.0 tons	
Rated Payload – Standard (Loose Material)	12.7 tonnes	14.0 tons	
Rated Payload – High Lift (Quarry Face)	10 tonnes	11.0 tons	
Rated Payload – High Lift (Loose Material)	11 tonnes	12.1 tons	
Bucket Capacity Range	5.0-10.3 m ³	6.5-13.5 yd ³	
Cat Truck Match – Standard	770/735/740/745		
Cat Truck Match – High Lift	772/773		

Transmission				
		Cat planetary power shi	ft	
km/h	mph	Speed	km/h	mph
7.3	5.0	Reverse 1	7.6	5.0
12.2	8.0	Reverse 2	13.6	8.0
12.7	8.0	Direct Drive Reverse 2	14.1	9.0
22.0	14.0	Direct Drive Reverse 3	25.0	16.0
39.0	24.0	Direct Drive Reverse 4	40.8	25.4
	km/h 7.3 12.2 12.7 22.0	km/hmph7.35.012.28.012.78.022.014.0	km/hmphSpeed7.35.0Reverse 112.28.0Reverse 212.78.0Direct Drive Reverse 222.014.0Direct Drive Reverse 3	km/h mph Speed km/h 7.3 5.0 Reverse 1 7.6 12.2 8.0 Reverse 2 13.6 12.7 8.0 Direct Drive Reverse 2 14.1 22.0 14.0 Direct Drive Reverse 3 25.0

Hydraulic System – Lift/Tilt		
Lift/Tilt System – Circuit	Load S	ense
Lift/Tilt System Pumps	2 x 110 cc variable displacement	
Relief Valve Setting – Lift/Tilt	27 900 kPa	4,050 psi

Hydraulic Cycle Time			
Rackback	4.5 Seconds		
Raise	9.0 Seconds		
Dump	3.5 Seconds		
Lower	5.2 Seconds		
Lower Float Down	4.3 Seconds		
Total Hydraulic Cycle Time (empty bucket)	21.3 Seconds		

Hydraulic System – Steering		
Steering System – Circuit	Load Sense	
Steering System – Pump	Piston, variable displacement	
Steering Cutoff Pressure	27 600 kPa 4,000 psi	
Total Steering Angle	70°	

Service Refill Capacities		
Fuel Tank	535 L	141 gal
Fuel Tank (Short Lift)	481 L	127 gal
Diesel Exhaust Fluid Tank (Tier 4 Final/Stage V only)	23 L	6 gal

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg of refrigerant which has a CO₂ equivalent of 2.574 metric tonnes.

Sound Performance – Tier 4 Final/Stage V		
	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	72 dB(A)	72 dB(A)
Machine Sound Level (ISO 6395:2008)	112 dB(A)	110 dB(A)*

Sound Performance – Tier 3/Stage IIIA Equivalent

	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	72 dB(A)	72 dB(A)
Machine Sound Level (ISO 6395:2008)	112 dB(A)	110 dB(A)

*European Union Directive "2000/14/EC" as amended by "2005/88/EC" and UK Noise Regulation 2001 No. 1701.

• The machine sound power level was measured according to the test procedures and conditions specified in ISO 6395:2008. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.

• The operator sound pressure level was measured according to the test procedures and conditions specified in ISO 6396:2008. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.

· Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.



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