

966M XE

WHEEL LOADER



Engine Net Power
Operating Weight

222 kW (298 hp)¹
23 220 kg (51,176 lb)

¹ Meets U.S. EPA Tier 4 Final, either EU Stage V or EU Stage IV* emission standards.
*Stage IV engines comply with the transition provisions of the EU nonroad emission regulation

CAT[®]

WHEEL LOADERS MADE FOR MORE

Cat® wheel loaders were built with efficiency in mind, offering you the best in:

- + RELIABILITY
- + DURABILITY
- + PRODUCTIVITY
- + FUEL EFFICIENCY

Experience higher performance while reducing costs and fuel-consumption with Cat wheel loaders.



CAT® 966M XE

SUPERIOR EFFICIENCY

The Cat 966M XE Wheel Loader offers significant fuel savings while lowering long-term costs. Cat wheel loaders meet emission standards and are designed to improve fuel economy without interrupting performance. The reliability, durability, and versatility result in machines that are better built to meet your needs.

SUPERIOR FUEL EFFICIENCY

THE 966M XE IS THE CLASS LEADER IN FUEL EFFICIENCY.



ADVANCED SYSTEMS WITH INNOVATIVE INTEGRATION

The deep system integration of the engine and emissions system, power train, hydraulic system, and cooling system intuitively lower engine speeds and overall system heat loads, resulting in significantly increased performance and fuel efficiency.

SMART SPEED CONTROLS

Lowering the rated engine speed and eliminating the torque converter result in speed that can be controlled independently of the engine speed, with engine deceleration transferred to the fan and implement pumps.

ENGINE AND EMISSIONS

High power density and fuel efficiency set our engines apart. Certified to meet emission standards, our engines feature Cat electronics, a fuel injection process, and air-management systems.

EFFICIENT ENGINE STRUCTURE

Significantly improved performance and fuel economy through engine speed and overall system heat load reduction.

NEXT GENERATION FUEL SYSTEMS

Cat injection timing regulates the fuel injection process through a series of timed microbursts, providing more control of combustion for the cleanest, most efficient fuel burn.

CAT NO_x REDUCTION SYSTEM

The Cat NO_x Reduction System (NRS) captures and cools a small quantity of exhaust gas, then routes it back into the combustion chamber where it reduces temperatures and emissions (Tier 4 Final, Stage V only).

AFTERTREATMENT TECHNOLOGIES

The Selective Catalytic Reduction (SCR) has been added to our demonstrated aftertreatment solution, fully meeting emission standards.



MAKE TIME FOR MORE.

VISIONLINK® WITH THE CAT ADVANCED PRODUCTIVITY APPLICATION VISUALIZES PRODUCTION-RELATED DATA, INCLUDING:

RUN TIME AND FUEL

“Is my machine efficient?”



TOTAL PAYLOAD RATES

“How productive is my machine?”



TIME AND CYCLES

“How did the job go today?”



PRODUCTION BY MATERIAL I.D.

“How much did I get done?”



GREATER PRODUCTIVITY

Applying proven technology and components means more dependable results for your work.

SUPERIOR FUEL EFFICIENCY

Cat advanced power train with deep system integration results in class-leading lower fuel consumption.

EASIER TO MAINTAIN

Extended engine oil, engine oil filter, hydraulic filter, and transmission oil change intervals saves you time, money, and energy.

All comparisons to previous generation.

PRODUCTIVE RESULTS

WORK SMART AND MOVE MORE

PERFORMANCE SERIES BUCKETS

Easy-to-load performance series buckets improve material retention and reduce dig times, significantly improving productivity and fuel efficiency. Resulting in unsurpassed production capabilities with increased fill factors – ranging from 100% to 115%.

CONTINUOUS VARIABLE TRANSMISSION

The flexible gear ratio runs the engine at a proficient operating level that is independent of machine ground speed.

OPTIMIZED RIDE CONTROL SYSTEM

Dual accumulator system enables a wide payload range and a better ride. Improves ride quality and smoothness over rough terrain, increasing your confidence, comfort, and efficiency, ensuring excellent material retention.



BETTER TRACTION

Differential locks are activated on-the-go which improves traction resulting in increased productivity while also reducing tire scuffing for reduced operating costs.

AGGREGATE HANDLER

Aggregate packages are specialized offerings for loose aggregate rehandling applications. Payloads can be increased above other applications by installing larger buckets and counterweights in compliance with Caterpillar payload policy.

THE RIGHT TECHNOLOGIES

Fine-tuned for the right applications:

- + BETTER FUEL ECONOMY, MAXIMIZED UPTIME, AND LOWER MAINTENANCE COSTS
- + HIGH POWER AND PERFORMANCE ACROSS A VARIETY OF APPLICATIONS
- + ENHANCED RELIABILITY THROUGH COMMONALITY AND SIMPLICITY OF DESIGN
- + WORLD-CLASS SUPPORT FROM THE CAT DEALER NETWORK
- + DURABLE DESIGNS WITH LONG LIFE TO OVERHAUL



ADVANCED POWER TRAIN

Power is transmitted through a variator unit and a parallel mechanical gear path, maximizing transmission efficiency over a wide range of operating conditions.



DURABLE AXLES

M Series axles are designed to handle your extreme applications. The rear axle oscillates to ± 13 degrees for excellent stability and traction on even the roughest terrain.



CAT FUSION™ COUPLER SYSTEM

Caterpillar patented, Fusion is a wheel loader coupler system (not pictured) performing virtually identical to pin-on, with all the flexibility of a quick coupler system.



OPTIMIZED HYDRAULICS

Our hydraulic systems come equipped with a monoblock main hydraulic valve. This design reduces weight while decreasing leak points by 40%.



DURABLE FRAMES

The robotically welded two-piece structural frame absorbs impact associated with excavation and loading, while the hitch system provides high bearing force capacity.



EXTENSIVE RANGE OF ATTACHMENTS

Do more jobs with one machine. An extensive range of work tools and bucket styles are available to customize these machines for your operation.



INCREASE PRODUCTIVITY AND EFFICIENCY UP TO 15%

CAT® CONNECT TECHNOLOGY

Technology gives you the edge. Operators of all experience levels will dig and load with more confidence, speed, and accuracy. The result? Better productivity and lower costs.



PAYLOAD

Provides you accurate weighing* of the materials you are loading and hauling. Payload data is displayed in real-time to improve productivity and reduce overloading. Optional Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.



DETECT

Enhances awareness of the environment around working equipment and provides alerts to help keep people and assets safe on the job site.



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 job site efficiency and productivity.

*Not legal for trade.

REAL-TIME INFORMATION FROM CAT LINK TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

Cat Link hardware (Product Link™) and software (VisionLink®) work together to put equipment information at your fingertips. Get real-time access to information on every machine in your fleet on any jobsite—no matter the size of the operation or the brands of equipment you run.



PRODUCT LINK™

Track asset location, hours, fuel usage, diagnostic codes, idle time and more to improve your productivity and lower your operating costs. Cellular connectivity comes standard. Satellite connectivity is available.



VISIONLINK

Using the online VisionLink interface, you can see a common, collective view of your information, making it easier to manage a mixed fleet and make informed decisions about your equipment.



MY.CAT.COM

You can also access Caterpillar and Cat dealer information at my.cat.com. My.cat.com gives you access to PM schedules, parts and service records, warranty coverage and more—with a single login. Plus, you can link directly to your VisionLink account.

EASY TO OPERATE

SAFE. COMFORTABLE. ACCESSIBLE.

A quiet operating environment and intuitive controls help to reduce the fatigue, stresses, sounds, and temperatures of a demanding job.



CAB ACCESS

Inclined steps and convenient grab handles ease accessibility to the operating space.



BETTER RIDE CONTROL

The next generation of ride control works as a shock absorber, improving ride quality over rough terrain.



GREATER VISIBILITY

Extended windows enhance visibility while convex and spot mirrors extend the driver's view on the sides and rear.



ADVANCED SEAT

The next generation of operator comfort includes an 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.



NOISE REDUCTION

Sound-suppression, seals, and damping cab mounts decrease noise and vibration for a quieter work environment.



JOYSTICK STEERING

The seat-mounted electro-hydraulic joystick steering system provides precision control and dramatically reduces arm fatigue, resulting in excellent comfort and accuracy.

CAT CONTINUOUSLY VARIABLE TRANSMISSION

Our advanced transmission delivers smooth shifts, fast acceleration, and speed on grade.



SIMPLE OPERATOR INTERFACE

Reduced operator interface and operating mode complexity.

RIGHT PEDAL CONTROL – GO

The right pedal can be set for the desired amount of propulsion without applying pedal pressure.

LEFT PEDAL MODULATION – STOP

Initial pedal press acts as a modulated neutralizer, progressively reducing rimpull for stable operation.

EASY MANEUVERABILITY

Machine maneuvering on grade is made easy with steady deceleration and anti-rollback.

ADVANCED POWER DIAGNOSTIC

On-board diagnostic replaces stall testing and offers additional troubleshooting information.

SIMPLIFIED SHIFTING STRATEGY

- Fully Automatic Transmission
 - Operator can set machine in 4F without further shifting required.
- Programmable Virtual Gears
 - Typical speed controls with flexible gear selection for desired applications.
- Integrated Flexibility
 - Separate virtual gears can be set for speed control, simplifying machine operation.
- Steady Deceleration
 - Engage pile in second gear run-out speeds without manually downshifting, intuitively changing from roading to dozing.
- Simple Directional Shifting
 - Smooth maneuverability without brake or throttle modulation for increased tire life and operator comfort.



SMARTER CONTROLS
AT YOUR FINGERTIPS

TOUCHSCREEN DISPLAY

Easy interface, machine controls, rear vision camera, intuitive navigation, and integrated Cat Production Measurement payload system let operators modify and monitor their machines instantly.

CENTRAL DISPLAY

Featuring a large text box with information about machine operation, features, system troubleshooting, and calibration, the central display is equipped with LED indicators and analog gauges, allowing the operator to easily analyze key systems.

CONTROL PANEL

With easy-to-reach controls and touchscreen display, the LED switch panel provides immediate access to frequently required functions, even while wearing gloves.



EASIER MAINTENANCE MORE SAVINGS

Cat wheel loaders are easy to maintain and service, eliminating any potential waste of time or money. Major components are rebuildable, giving the machine a second life, and often a third life.

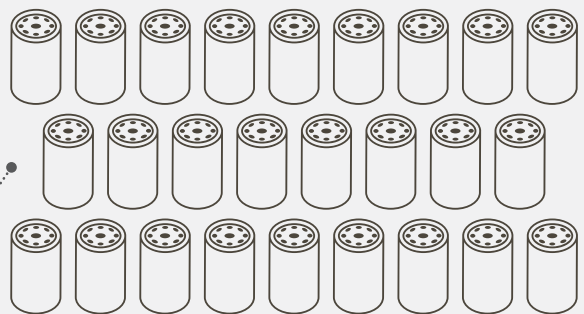
KEY FEATURES SAVING YOU TIME, MONEY, AND ENERGY:

- + Extended engine oil and engine oil filter change interval up to 1000 hours (Tier 4 Final, Stage V only)
- + Extended hydraulic filter change interval up to 1000 hours
- + Extended transmission oil change interval up to 2000 hours
- + Optional Integrated Cat autolube system
- + Remote flash support
- + Longer tire life with on-the-go traction aids
- + Safe and simple preventive maintenance



LOWER MAINTENANCE COSTS

SAVE ON MAINTENANCE
BY USING FEWER FILTERS



Extended filter change intervals means using fewer filters over the machine's lifetime.

DO MORE JOBS

VERSATILE ATTACHMENTS AND COUPLERS

For work sites that demand more, you need a wheel loader that is purpose-built for the job. Cat work tools are engineered to handle all of your specific application needs.



STANDARD Z-BAR LINKAGE

The proven Z-bar linkage combines digging efficiency with sharp visibility, resulting in excellent excavation, high breakout forces, and superior production capabilities.



FUSION QUICK COUPLER

The Fusion Coupler System allows machines to use a wide range of tools that can each be picked up by machines of varying sizes. Fusion is designed to integrate the work tool and the machine by pulling the coupler and tool closer to the loader, increasing overall lift capability.

- + Improved machine performance
- + Unsurpassed durability
- + Increased visibility

HIGH LIFT LINKAGE

The optional high lift linkage offers increased hinge pin height to load more easily in a variety of applications with any type of bucket or fork.



PERFORMANCE SERIES BUCKETS

Performance Series Buckets use a system-based approach to balance bucket shape with the machine's lift and tilt capacity, weight, and linkage. A variety of work tools and bucket styles let you customize these machines to meet your operation needs.

- + Easy loading
- + Fuel efficient
- + Carry more
- + Lower operating costs
- + Higher productivity



Aggregate Handler

Aggregate packages make rehandling loose aggregate less stressful on the machine, which means payloads can be increased with the installation of larger buckets and counterweights.

Industrial and Waste Handler

Industrial and waste packages offer integrated guards to protect your machine from the harsh environment of a scrap or waste handling application.

Forestry Arrangement

The forestry package includes a heavy-duty linkage, a larger tilt cylinder, and a heavier counterweight to safely handle the larger loads met in logging and mill yard applications.

TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE – 966M XE (TIER 4 FINAL/STAGE V)			
Engine Model	Cat C9.3		
Maximum Net Power @ 1,600 rpm – SAE J1349	222 kW	298 hp	
Maximum Net Power @ 1,600 rpm – SAE J1349 (metric)	302 hp		
Maximum Net Power @ 1,600 rpm – ISO 9249	222 kW	298 hp	
Maximum Net Power @ 1,600 rpm – ISO 9249 (metric)	302 hp		
Peak Gross Torque (1,200 rpm) – SAE J1995	1728 N·m	1,275 lbf·ft	
Peak Gross Torque (1,200 rpm) – ISO 14396	1708 N·m	1,260 lbf·ft	
Maximum Net Torque (1,200 rpm)	1618 N·m	1,193 lbf·ft	
Displacement	9.3 L	568 in ³	

• 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 CO₂ equivalent of 2.288 metric tonnes.

WEIGHTS		
Operating Weight	23 220 kg	51,176 lb

• Weight based on a machine configuration with Michelin 26.5R25 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 4.2 m³ (5.5 yd³) general purpose bucket with BOCE

BUCKET CAPACITIES			
Bucket Range	3.20- 7.40 m ³	4.19- 9.68 yd ³	

TRANSMISSION – VIRTUAL GEARS					
Forward 1	6.7 km/h	4.1 mph	Reverse 1	6.7 km/h	4.1 mph
Forward 2	12.6 km/h	7.7 mph	Reverse 2	12.6 km/h	7.7 mph
Forward 3	22.1 km/h	13.5 mph	Reverse 3	28.0 km/h	17.1 mph
Forward 4	39.5 km/h	24.5 mph			

• Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 826 mm (32.5 in) roll radius.

SOUND	
With Cooling Fan Speed at Maximum Value:	
Operator Sound Pressure Level (ISO 6396:2008)	67 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)
Exterior Sound Pressure Level (SAE J88:2013)	76 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)	67 dB(A)
Exterior Sound Power Level	105 L _{WA} ***

**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."

OPERATING SPECIFICATIONS			
Static Tipping Load – Full 37° Turn – with Tire Deflection	14 668 kg	32,329 lb	
Static Tipping Load – Full 37° Turn – No Tire Deflection	15 822 kg	34,873 lb	
Breakout Force	173 kN	38,984 lbf	

• For a machine configuration as defined under "Weight."

• Full compliance to ISO 143971:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

SERVICE REFILL CAPACITIES			
Fuel Tank	302 L	79.8 gal	
DEF tank	16.8 L	4.4 gal	
Cooling System	71.6 L	19 gal	
Crankcase	24.5 L	6.5 gal	
Transmission	63 L	16.6 gal	
Differentials and Final Drives – Front	57 L	15.1 gal	
Differentials and Final Drives – Rear	57 L	15.1 gal	
Hydraulic Tank	125 L	33 gal	

HYDRAULIC SYSTEM			
Implement Pump Type	Variable Displacement Piston		
Implement System:			
Maximum Pump Output (1,600 rpm)	385 L/min	102 gal/min	
Maximum Operating Pressure	31 000 kPa	4,496 psi	
Hydraulic Cycle Time – Total	10.1 Seconds		

DIMENSIONS				
	Standard Lift		High Lift	
Height to Top of Hood	2818 mm	9'3"	2818 mm	9'3"
Height to Top of Exhaust Pipe	3522 mm	11'7"	3522 mm	11'7"
Height to Top of ROPS	3587 mm	11'9"	3587 mm	11'9"
Ground Clearance	434 mm	1'5"	434 mm	1'5"
Center Line of Rear Axle to Edge of Counterweight	2180 mm	7'2"	2500 mm	8'2"
Center Line of Rear Axle to Hitch	1775 mm	5'10"	1775 mm	5'10"
Wheelbase	3550 mm	11'8"	3550 mm	11'8"
Overall Length (without bucket)	7289 mm	23'11"	8109 mm	26'7"
Hinge Pin Height at Maximum Lift	4235 mm	13'11"	4793 mm	15'9"
Hinge Pin Height at Carry	630 mm	2'1"	778 mm	2'7"
Lift Arm Clearance at Maximum Lift	3643 mm	11'11"	4140 mm	13'7"
Rack Back at Maximum Lift	62 degrees		71 degrees	
Rack Back at Carry Height	50 degrees		49 degrees	
Rack Back at Ground	42 degrees		39 degrees	
Maximum Width over Tires	3009 mm	9'10"	3009 mm	9'10"
Tread Width	2230 mm	7'4"	2230 mm	7'4"

• All dimensions are approximate and based on L3 XHA2 tires.

STANDARD & OPTIONAL EQUIPMENT

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

OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Cab, pressurized, sound suppression	•	
Door, remote opening system		•
Touchscreen display	•	
EH: Controls, joystick, parking brake	•	
Seat, cloth, air suspension	•	
Seat, suede/cloth, air suspension, heated		•
Seat, leather/cloth, air suspension, heated/cooled		•
Radio, AM/FM, Bluetooth®, CD/USB/MP3/Sirius XM, CB ready		•
Visibility: Mirrors, rear vision camera	•	
Air conditioner, heater, defroster (auto temp, fan)	•	
Windows, front, heavy duty, or full guards		•
CAT CONNECT TECHNOLOGIES	STANDARD	OPTIONAL
Link: Product Link	•	
Link: VIMS™		•
Detect: Rear vision camera	•	
Detect: Cat Rear Object Detection		•
Machine Security System		•
Printer, Aggregate Autodig, Cat Production Measurement 2.0		•
POWER TRAIN	STANDARD	OPTIONAL
Cat C9.3 engine, meets emission standards	•	
Emissions: CEM, DPF, DEF (Tier 4 Final/Stage V)	•	
Fuel priming pump, fuel/water separator	•	
Radiator, high debris, wide fin spacing		•
Fan, variable pitch fan, auto/manual control		•
Cat Continuously Variable Transmission	•	
Precleaner, engine air intake	•	
Brakes, full hydraulic, Integrated Braking System, wear indicators	•	
Axles, manual differential locks, ecology drains	•	
Axles, automatic locks, oil cooler, temperature seals, guards		•

HYDRAULICS	STANDARD	OPTIONAL
Hydraulic system, steering, load sensing	•	
Ride Control, 2V	•	
3rd and 4th function w/ Ride Control		•
Oil sampling valves, hoses, Cat XT™	•	
ELECTRICAL	STANDARD	OPTIONAL
Starter, electric, heavy duty	•	
Starting and charging system, 24V	•	
Lights: Halogen, 4 work lights, 2 roading lights, 2 rear vision lights	•	
Lights: Additional 4 halogen work lights OR replace full lighting with LED packages		•
Cold start, 120V, 240V		•
MONITORING SYSTEM	STANDARD	OPTIONAL
Gauges: Speedometer, temperature, fuel level, DEF level	•	
Indicators: Regeneration, temperature, pressure, battery, oil, DEF	•	
ADDITIONAL EQUIPMENT	STANDARD	OPTIONAL
Cat Autolube System		•
Fenders, roading		•
Guard, power train		•
Oil change, high speed engine		•
Precleaner, turbine		•
Precleaner, trash		•
Wheel chocks		•
LINKAGE	STANDARD	OPTIONAL
High Lift		•
Forestry		•
Quick Coupler Ready		•
Linkage, Z-bar, cast crosstube/tilt lever	•	
Kickout, lift and tilt, automatic	•	
OTHER OPTIONAL CONFIGURATIONS	STANDARD	OPTIONAL
Aggregate Handler		•
Industrial and Waste Handler		•
Forestry		•

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 966M XE model available at www.cat.com or your Cat dealer.

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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www.cat.com www.caterpillar.com

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