



Cat[®] 966 XE

Wheel Loader

The Cat[®] 966 XE Wheel Loader delivers up to 35% increased fuel efficiency,* premium performance with simple-to-use standard technologies to boost operator efficiencies, and lower maintenance costs by up to 25%.* This machine is designed to meet emission standards without interrupting operation. Improved performance, reliability, durability, and versatility result in a machine that is better built to meet your needs.

***Compared to previous Cat model**

Superior Fuel Efficiency

- Up to 35% better fuel efficiency compared to previous Cat model.
- Deep system integration of the Cat continuously variable transmission, engine, hydraulic, and cooling systems results in significantly increased performance and fuel efficiency.
- Eliminating the torque converter allows the capability to control engine rpm and machine speed independently, resulting in efficient digging, fine control, and easy operation.
- Lower rated engine speed reduces component wear and operating noise.
- Power dense engine burns less fuel by providing power and torque when needed.

Achieve Greater Productivity

- Continuously variable transmission delivers smooth, fast acceleration and speed on grade.
- Machine maneuvering on grade is made easy with speed-hold and anti-rollback.
- Integrated continuously variable transmission provides maximum, steady power at optimal speeds.
- Advanced rimpull control for best loading efficiency in the pile and tire wear reduction.
- New Autodig with Auto Set Tires for consistent high bucket fill factors.
- Application Profiles optimize machine settings for different applications at one push of a button.
- Job Aids help operators improve and optimize their operating skills.
- Performance Series Buckets utilize a system-based approach to balance bucket shape against the machine's linkage, resulting in higher fill factors and better material retention when compared with other buckets of the same rated capacity.
- Automatic engine idle shutdown system significantly reduces idle time, overall operating hours, and fuel consumption.
- Dual ride control accumulator system enables a wide payload range and better ride quality.

- Standard manual front differential provides additional traction when needed. Automatic front and rear locks are available as an option.
- Optional aggregate handler configuration offers higher payload capability for loose aggregate handling.**
- With Fusion™ Quick Coupler, buckets can be changed without leaving the cab, allowing the machine to quickly move from task to task.

Smart Machine for Efficient Operation

- Standard Cat technologies to monitor, manage, and enhance your jobsite operations.
 - Cat Payload with Assist provides accurate weighing*** of the bucket payloads. Data is displayed in real time to improve productivity and loading accuracy with manual tip-off.
 - Product Link™ wirelessly connects the machine to the office, giving you access to production and essential health information needed to make timely, fact-based decisions to help you better run your business.
 - New Autodig allows the operator to fully automate bucket loading to improve fill factors and loading time.
 - Auto Set Tires promotes proper loading technique, significantly reducing tire slip and tire wear.
 - Onboard Job Aids and Operator Controls Help to ease operation.
- Optional Cat Advanced Payload with Assist:
 - Tip Off Assist automatizes load adjustment of the final bucket to match hauling unit target.
 - Enhanced lists management, site integration, and extended scale features to help manage and improve productivity and profitability of operations.
- Optional Cat Productivity subscription provides detailed and comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.

***Optional configurations and equipment may vary from region to region and require conformance to Caterpillar payload policy. Consult your dealer or Caterpillar representative for details.*

****Not legal for trade.*



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Proven Reliability

- Cat C9.3B engine† offers high power density with a combination of proven electronics, 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.
- Features an electric fuel priming pump, fuel-water separator, and secondary filtration system.
- Thorough component design and machine validation processes result in unmatched reliability and uptime.

Safety Features

- Rear-vision camera enhances visibility behind the machine, helping you work safely and confidently.
- Optional multiview (360°) vision system helps the operator monitor the surroundings of the machine at all times.
- Optional Cat Detect radar technology enhances awareness by monitoring the working environment and alerts operators to hazards.
- Cab access with wide door, remote door opening, and inclined steps add solid stability.
- Floor-to-ceiling windshield, large mirrors with integrated spot mirrors, and rear-vision camera provide industry leading all-around visibility.
- Computerized monitoring system includes several warning indicators.
- Monitored seat belt is standard and can be enhanced with an optional exterior indicator.
- Optional access light and under-hood service light system to provide illuminated access to the machine and daily checks even in the dark.

Reduced Maintenance Time and Costs

- Extended fluid and filter change intervals reduce maintenance costs by up to 25%.*
- Convenient access to hydraulic and electrical service centers for easy ground-level servicing.
- Remote Troubleshoot can connect the machine to the dealer service department to help diagnose problems quickly so you can get back to work.
- Remote Flash works around your schedule to ensure your machine's software is up to date for optimal performance.
- The Cat App helps you manage fleet location, hours, and maintenance schedules; it also alerts you for required maintenance and allows you to request service from your local Cat dealer.
- Integrated Autolube extends component and service life.
- One-piece tilting hood makes engine compartment access fast and easy.

**Parts and fluids only*

Durability

- Heavy-duty axles designed to handle extreme applications.
- Full-flow hydraulic filtration system with additional kidney-loop filtration improves hydraulic system reliability and component life.

Work in Comfort in the All New Cab

- Next-generation, easily adjustable seat and suspension for improved operator comfort. It comes in two trim levels and can be equipped with a 4-point harness (kit).
- Increased legroom and adjustable seat controls for increased comfort and efficiency.
- Automatic air conditioning system keeps the cab cool as desired.
- New in-cab dashboard and high-resolution touch display(s) are easy to use, intuitive, and user friendly.
- Sound suppression, seals, and viscous cab mounts decrease noise and vibration for a quieter work environment.
- The seat-mounted electro-hydraulic joystick steering system provides precision control and dramatically reduces arm fatigue, resulting in excellent comfort and accuracy.
- The next generation of ride control works as a shock absorber, improving ride quality over rough terrain.

Purpose-built Specialty Configurations

- Application-specific arrangements direct from the factory for optimized performance and added durability in the toughest applications, including:
 - Industrial and waste models feature guarding and reinforcement necessary for work in transfer stations, recycling depots, scrap yards, and demolition sites.
 - Forestry model increases lift and tilt capacities for efficient and productive log and chip handling in paper, pellet, and sawmills.

†Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			POWER TRAIN (Continued)		
Cab, pressurized, sound suppression	✓		Service brakes, hydraulic, fully enclosed wet disc, wear indicators	✓	
Door, remote opening system	✓		Park brake, caliper on front axles, spring applied–pressure released	✓	
EH implement controls, parking brake	✓		HYDRAULICS		
Steering, joystick	✓		Implement system, load sensing with electro-hydraulic variable displacement piston pump	✓	
Entertainment radio (FM, AM, USB, BT)		✓	Steering system, load sensing with dedicated variable displacement piston pump	✓	
Entertainment radio (DAB+)		✓	Ride control, dual accumulators	✓	
CB radio ready		✓	3 rd and 4 th auxiliary functions with ride control		✓
Seat, suede/cloth, air suspension, heated	✓		Oil sampling valves, Cat XT™ hoses	✓	
Seat, leather/cloth, air suspension, heated/cooled		✓	Quick coupler control		✓
Touchscreen display	✓		ELECTRICAL		
Visibility: mirrors, rear-vision camera	✓		Starting and charging system, 24V	✓	
Multiview (360°) vision system		✓	Starter, electric, heavy duty	✓	
Cat Detect rear radar system		✓	Cold start, 120V or 240V		✓
Dedicated rearview screen		✓	Lights: halogen, 4 work lights, 2 rear-vision lights	✓	
Mirrors, heated	✓		Lights: roading with turn signals	✓	
Air conditioner, heater, defroster (auto temp, fan)	✓		Lights: LED		✓
Sun visor, front, retractable	✓		Warning beacon		✓
Sun visor, rear, retractable	✓		MONITORING SYSTEM		
Window cleaning platform, front	✓		Front dash with analog gauges, LCD display, and warning lights	✓	
Window, front, laminated	✓		Primary touchscreen monitor (Cat Payload, quad screens, machine settings & messages)	✓	
Windows, front, heavy duty		✓	Reversing strobe lights		✓
Full cab window guard		✓	LINKAGE		
ON-BOARD TECHNOLOGIES			Standard lift, Z-bar	✓	
Cat Payload scale	✓		High lift, Z-bar		✓
Autodig with Auto Set Tires	✓		Kickouts: lift and tilt	✓	
Operator ID & machine security	✓		ADDITIONAL EQUIPMENT		
Application Profiles	✓		Cat Autolube system		✓
Job Aids	✓		Fenders, roading		✓
Controls Help and eOMM	✓		Guards: power train, crankcase, cab, cylinders, rear		✓
Cat Advanced Payload		✓	Biodegradable hydraulic oil		✓
Cat Payload Printer		✓	High-speed oil change system		✓
POWER TRAIN			Toolbox		✓
Cat C9.3B engine	✓		Wheel chocks		✓
Electric fuel priming pump	✓		Secondary steering system, electrical*		✓
Fuel-water separator and secondary fuel filter	✓		SPECIAL CONFIGURATIONS		
Engine, air precleaner	✓		Aggregate handler		✓
Turbine, air precleaner		✓	Waste and industrial		✓
Radiator, high debris		✓	Forestry		✓
Cooling fan, reversible		✓	Corrosion resistant		✓
Axles, front differential lock	✓				
Axles, auto differential locks front and rear		✓			
Axles, ecology drains	✓				
Axles, AOC ready, extreme temperature seals		✓			
Axles, oil cooler		✓			
Transmission, continuous variable	✓				
Rimpull control	✓				
Throttle lock mode	✓				
Hill and speed hold on grades	✓				

*Standard where mandated

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Technical Specifications

Engine		
Engine Model	Cat C9.3B	
Engine Power @ 1,600 rpm – ISO 14396:2002	239 kW	321 hp
Gross Power @ 1,600 rpm – SAE J1995:2014	242 kW	325 hp
Net Power @ 1,600 rpm – ISO 9249:2007, SAE J1349:2011	222 kW	298 hp
Engine Torque @ 1,200 rpm – ISO 14396:2002	1781 N·m	1,313 lbf·ft
Gross Torque @ 1,200 rpm – SAE J1995:2014	1799 N·m	1,327 lbf·ft
Net Torque @ 1,200 rpm – ISO 9249:2007, SAE J1349:2011	1662 N·m	1,226 lbf·ft
Displacement	9.3 L	

- Cat engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
 - The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner, and aftertreatment.
 - Cat engines are compatible with the following renewable, alternative, and bio-fuels* with lower greenhouse gas emission impact:
 - Up to B20 biodiesel (FAME) **
 - Up to 100% HVO and GTL renewable fuels
- * Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.
- ** For use of higher blends, consult your Cat dealer.

Weight

Operating Weight 23 196 kg 51,124 lb

- Weight based on a machine configuration with Bridgestone 26.5R25 VJT L3 radial tires, full fluids, operator, standard counterweight, ride control, cold start, roading fenders, Product Link, front manual differential/open rear axles, power train guard, secondary steering, sound suppression, and a 4.2 m³ (5.5 yd³) general purpose bucket with BOCE.

Transmission

Speed	km/h	mph	Speed	km/h	mph
Forward 1	6.9	4.3	Reverse 1	6.9	4.3
Forward 2	13.0	8.0	Reverse 2	13.0	8.0
Forward 3	22.7	14.1	Reverse 3	28.8	17.9
Forward 4	39.5	24.5	Reverse 4	N/A	N/A

- Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 849 mm (33 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)	74 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 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."

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg (3.5 lb) of refrigerant which has a CO₂ equivalent 2.288 metric tonnes (2.522 tons).

Bucket Capacities

Bucket Range 2.8-11.9 m³ 3.75-15.5 yd³

Operating Specifications

Static Tipping Load – Full 37° Turn:

With Tire Deflection	14 849 kg	32,727 lb
No Tire Deflection	15 981 kg	35,224 lb
Breakout Force	174 kN	38,999 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	303 L	80.1 gal
DEF Tank	26 L	6.9 gal
Cooling System	66 L	17.4 gal
Crankcase	23 L	6.1 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	114 L	30.1 gal

Hydraulic System

Implement System:

Maximum Pump Output (1,400 rpm)	348 L/min	92 gal/min
Maximum Operating Pressure	31 000 kPa	4,496 psi
Hydraulic Cycle Time – Total	9.5 seconds	

Dimensions

	Standard Lift		High Lift	
Height to Top of Hood	2580 mm	9'5"	2580 mm	9'5"
Height to Top of Exhaust Pipe	3531 mm	11'8"	3531 mm	11'8"
Height to Top of ROPS	3593 mm	11'10"	3593 mm	11'10"
Ground Clearance	424 mm	1'4"	424 mm	1'4"
Center Line of Rear Axle to Edge of Counterweight	2290 mm	7'7"	2458 mm	8'1"
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)	7399 mm	24'4"	8069 mm	26'6"
Hinge-Pin Height at Maximum Lift	4245 mm	13'11"	4804 mm	15'9"
Hinge-Pin Height at Carry	635 mm	2'0"	782 mm	2'6"
Lift Arm Clearance at Maximum Lift	3687 mm	12'1"	4183 mm	13'8"
Rack Back at Maximum Lift	62 degrees		71 degrees	
Rack Back at Carry Height	50 degrees		49 degrees	
Rack Back at Ground	39 degrees		37 degrees	
Width over Tires (loaded)	3012 mm	9'11"	3012 mm	9'11"
Tread Width	2230 mm	7'3"	2230 mm	7'3"

• All dimensions are approximate and based on machine equipped with 4.2 m³ (5.5 yd³) general purpose bucket with BOCE and Bridgestone 26.5R25 VJT L3 radial tires.

AEXQ3253-00 (06-2021)
Build Number 14A
(N Am, Europe)