



Cat[®] 988K XE

Wheel Loader

Move more material in less time at a lower cost per ton with the Cat[®] 988K XE wheel loader. The electric-drive 988K XE is faster and more efficient than the 988K in applications that demand high performance and production. Get a faster return on your investment with up to 25% better overall fuel efficiency and designed-in durability for multiple life cycles.

Proven Reliability

- With 15+ years of electric-drive experience, the 988K XE combines the simple and robust switched reluctance technology with proven machine design.
- More than 90 percent identical to the market leader, the 988K.
- Fewer moving parts than traditional torque converter and mechanical transmission systems.
- Solid-state, fully sealed, and liquid-cooled powered electronics maximize durability in extreme conditions.
- Moves more material more efficiently with improved power and control.
- Cat C18 engine is built and tested to meet your most demanding applications.
- Advanced filtration system for extended performance and reliability of the hydraulic system.

Durability

- Achieves longer engine life and improved fuel efficiency with reduced rated speed.
- Automatic retarder controls maintain speed on grade.
- One-piece castings provide enhanced strength in key pin areas.
- Full box section rear frame resists torsional shock and twisting forces.
- Durable construction withstands the toughest loading conditions and multiple life cycles.

Achieve Greater Productivity

- Up to 10 percent increase in productivity in load and carry applications.
- Electric-drive system eliminates shifting and simplifies operator control, accelerating the learning curve of new operators.
- Superior acceleration, smoother directional shifts, and reduced travel times.
- Maximum responsiveness with Steering and Integrated Control (STIC[™]).
- Convenient, responsive electro-hydraulic controls increase operator productivity.
- Superior digging, higher bucket fill factors, and reduced dig times.
- Up to 10 percent more payload per pass, higher efficiency, and improved pass match.
- Improved visibility over the top of the linkage.

Superior Fuel Efficiency

- Up to 25 percent better fuel efficiency overall.
- Up to 49 percent more fuel efficiency in truck loading applications.
- Greenhouse gas reductions up to the equivalent of 1 year of electricity use for nearly 10 homes.
- Continuously variable speed control up to maximum ground speed.
- Positive Flow Control (PFC) hydraulic system increases efficiency, bucket feel, and responsiveness with consistent performance.
- Economy mode for reduced rated engine speed and reduced fuel consumption.
- Fully integrated electronic engine controls make your fuel go farther.
- Engine idle shutdown for less fuel used while idling.
- Flow sharing hydraulics for full-flow at reduced engine rpm.
- Increased hydraulic speed and faster cycle times for decreased idle, decreased fuel burn, and increased efficiency.



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Increase Productivity and Efficiency with Integrated Technologies

- Cat Technologies developed to monitor, manage, and enhance your jobsite operations.
- Cat 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.
- Cat Detect enhances awareness of the environment around working equipment and provides alerts to help keep people and assets safe on the jobsite.
- Product 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.
- Optional Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.
- Up to 15% improved cycle time and 10% better bucket fill factor with optional Operator Coaching.
- Up to 10% dig segment cycle optimization with optional New Autodig features.

**Not legal for trade.*

Safety Features

- Hazardous voltage lamp assures electric drive system is de-energized and machine is safe to work on.
- Achieve precise positioning for easy loading in tight areas with 43 degrees of steering articulation.
- Precise machine control by load-sensing hydraulic steering system.
- Reduced stairway angles and standard stairway lighting provide reduced risk of slips, trips, and falls due to better visibility of the steps and stairway.
- Left- and right-hand stairs with 45-degree angle.
- Computerized monitoring system with warning indicators.
- Standard Cat Vision enhances visibility behind the machine, helping you work safely and confidently.
- Pressurized cabin with filtered air and reduced sound levels.

Reduced Maintenance Time and Costs

- Electric-drive system maximizes consumable life, reducing oil and filter waste. Enables two times the life for power train oil and four times the life for filters.
- Reduce the potential for wheel slippage without reducing hydraulic efficiency with RCS (Rimpull Control System) and modulating the left pedal from 100 to 25 percent.
- Longer life, rebuildability, and high resale value with 10 percent lower maintenance costs.
- Grouped service points and swing-out engine compartment service doors provide easy access to critical daily service checks.
- Ecology drains to prevent spilled contaminants.
- Electro-hydraulic controls.
- Reduced waste with maintenance-free batteries.
- Vehicle Information Management System (VIMS™) notifications to resolve problems before failure.
- Operators can now check tire pressure during operation with any change sending a fault code to VisionLink®, preventing premature tire failure.

Easy, Comfortable Operator Environment

- Best-in-class operator comfort and ergonomics.
- Comfort Series III seats with extra thick, contoured cushions provide total comfort throughout the workday.
- Easy-to-reach levers and seat-mounted implement pod to reduce fatigue.
- Ergonomic switch placement and displays with large, backlit switches and LED indicators.
- Two-position rocker switch activates the electro-hydraulic parking brake.
- Reduced vibrations from isolated cab mounts and seat air suspension.
- Automatic cab temperature controls.

Purpose-Built Specialty Arrangements Millyard

- Unload a typical full-length log truck in a single pass with the larger lift and tilt cylinders and a unique tilt lever to maximize linkage force. Up to 20% more lift capacity and 26% more tilt capacity over the standard 988K.
- Swing out fan radiator design for easier service in high-debris millyard applications reducing maintenance and service down time. Auto reversing fan system to help dislodge debris and keep air flowing across the radiator cores.
- Additional counterweight to increase stability for improved confidence while maneuvering with full loads.
- Purpose-built lift arm with lowered cross member to increase visibility to the tips of the forks helping to increase the speed when lining up the load and reduce operator movements to see the forks.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ELECTRICAL			POWER TRAIN (CONTINUED)		
Alarm, back-up	✓		Electro hydraulic parking brake	✓	
Alternator, single 150 amp	✓		Engine block heater 120V or 240V		✓
Converter, 10/15 amp, 24V to 12V	✓		Engine brake, SEA		✓
Hazardous voltage lamp	✓		Engine, C18 MEUI™ diesel, turbocharged/ aftercooled	✓	
Lighting system (halogen, work lights, access and service platform lighting)	✓		Engine oil change system, high speed, Wiggins		✓
Starting and charging system, 24V	✓		Ground level engine shutoff	✓	
Starter emergency start receptacle	✓		High ambient cooling – software		✓
Starter lockout in bumper	✓		Turbine precleaner, engine air intake	✓	
Transmission lockout in bumper	✓		Radiator, Aluminum Modular Radiator (AMR)	✓	
OPERATOR ENVIRONMENT			ADDITIONAL EQUIPMENT		
Air conditioner	✓		Aggregate handler		✓
Cat Detect, object detection system		✓	AutoDig™ feature, Tire Slip Prevention		✓
Cat Vision, rear vision camera system	✓		AutoDig features, Auto Set Tires & Lift Stall Prevention		✓
Cab precleaner		✓	Autolube with Auto shutoff		✓
Cab, sound suppressed and pressurized, integrated rollover protective structure (ROPS/ FOPS) radio ready for entertainment, includes antenna, speakers, and converter (12-volt 5-amp) and power port	✓		Automatic bucket lift kickout/positioner		✓
Heater, defroster	✓		Base machine price includes a rim allowance	✓	
Horn, electric	✓		Cat Clean Emission Module (CEM)	✓	
LED warning strobe		✓	Cold weather starting (extra starter plus two batteries)		✓
Lights, directional	✓		Doors, service access (locking)	✓	
Lunchbox, beverage holders	✓		Ecology drains for engine, radiator, hydraulic tank	✓	
Mirrors, rearview (externally mounted)	✓		EZ Clean cooling system		✓
Radio, AM/FM/CD/MP3 Bluetooth® with Satellite Sirius		✓	Fast fill fuel system (Shaw-Aero)		✓
Radio, CB ready	✓		Front and rear roading fenders		✓
Seat, Cat Comfort Series III, heated and ventilated, air suspension, six-way adjustable	✓		Hitch, drawbar with pin	✓	
Seat belt minder	✓		Hydraulic, steering and brake filtration/screening system	✓	
Seat belt, retractable, 76 mm (3 in) wide	✓		Hydraulically driven demand fan	✓	
STIC System	✓		Load and carry counterweight		✓
Tire Slip Prevention	✓		Oil sampling valves	✓	
UV glass	✓		Premixed 50% concentration of extended life coolant with freeze protection to -34°C (-29°F)	✓	
Virtual gear indicator	✓		Rear access to cab and service platform	✓	
Wet-arm wipers/washers (front and rear) – intermittent front and rear wipers	✓		Steering, load sensing	✓	
Window pull-down visor		✓	Tire Pressure Monitoring System		✓
POWER TRAIN			OTHER OPTIONAL CONFIGURATIONS		
Antifreeze -50°C (-58°F)		✓	Aggregate Handler		✓
Automatic retarder controls	✓		Load and Carry		✓
Brakes, oil-cooled, multi-disc, service/secondary	✓		Millyard		✓
Case drain screens	✓				
Cat Integrated Powered Electronics	✓				
Cat Production Measurement		✓			
Cat Production Measurement ready	✓				
Cat SR drive motor	✓				
Cat SR generator/pump drive	✓				
Crankcase guard		✓			

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Technical Specifications

Engine

Engine Model	C18	
Rated Speed	1,700 rpm	
Peak Power Speed	1,500 rpm	
Engine – ISO 14396:2002	432 kW	580 hp
Gross – SAE J1995:2014	439 kW	588 hp
Net Power – SAE J1349:2011	401 kW	538 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in ³
Peak Torque @ 1,200 rpm – SAE J1995:2014	3023 N·m	2,230 lb·ft
Torque Rise	58%	

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator.

Operating Specifications

Operating Weight	52 781 kg	116,362 lb
Rated Payload – Quarry Face	11.3 tonnes	12.5 tons
Rated Payload – Loose Material	14.5 tonnes	16.0 tons
Bucket Capacity Range	4.7-13.0 m ³	6.2-17.0 yd ³

Transmission

Transmission Type	Cat switched reluctance electric drive					
Speed	km/h	mph	Speed	km/h	mph	
Forward 1 (virtual)	7.0	4.3	Reverse 1 (virtual)	7.0	4.3	
Forward 2 (virtual)	11.3	7.0	Reverse 2 (virtual)	11.3	7.0	
Forward 3 (virtual)	22.2	13.8	Reverse 3 (virtual)	28.2	17.5	
Forward 4 (virtual)	32.1	20.0				

Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	EH – Positive Flow Control, Flow Sharing	
Lift/Tilt System Pumps	Variable displacement piston	
Relief Valve Setting – Lift/Tilt	32 800 kPa	4,757 psi

Hydraulic Cycle Time

Rackback	4.5 seconds
Raise	8.0 seconds
Dump	2.2 seconds
Lower Float Down	3.5 seconds
Total Hydraulic Cycle Time (empty bucket)	18.2 seconds

Hydraulic System – Steering

Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Piston, variable displacement	
Steering Cut Off Pressure	30 000 kPa	4,351 psi
Total Steering Angle	86°	
Steering Cycle Time (high idle)	3.4 seconds	
Steering Cycle Time (low idle)	5.6 seconds	

Service Refill Capacities

Fuel Tank	555 L	147.0 gal
Diesel Exhaust Fluid Tank	33 L	8.7 gal

- All nonroad Tier 4 Final/Stage V diesel engines are required to use:
 - The machine has the flexibility to run on either ultra-low-sulfur diesel fuel (ULSD with 15 ppm of sulfur or less).
 - Cat engines are compatible with the following renewable, alternative, and biodiesel* fuels that reduce greenhouse gases:
 - 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.
 - Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.
 - Only use DEF that meets ISO 22241-1 standards.

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

Operator Sound Level (ISO 6396:2008)	Standard
	72 dB(A)
Machine Sound Level (ISO 6395:2008)	109 dB(A)

- 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.
- 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.



オフロード法2014年
基準適合

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