



Cat[®] 972M XE

Wheel Loader

2017

The new 972M XE Wheel Loader, with the 2017 product update, applies proven technologies systematically and strategically to meet your high expectations for reliability, productivity, fuel efficiency, and long service life. The XE technology improves fuel efficiency by up to 25% over the M Series standard configuration and up to 35% over the K Series standard configuration.**

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

Reliability

- Cat[®] C9.3 ACERT™ engine offers increased power density with a combination of proven electronic, fuel and air systems.
- Utilizing rigorous component design and machine validation processes results in unmatched reliability, durability and high uptime.

Durability

- Cat continuously variable transmission and axles handle extreme applications.
- Full flow hydraulic filtration system with additional loop filtration improves hydraulic system robustness and component life.

Productivity

- Advanced power train delivers superior performance and fuel efficiency while simplifying interface and operating technique.
- Integrated continuously variable transmission with multi-viscosity oil provides maximum and continuous power at optimal speeds.
- Power train control independent of engine speed with energy recovery improves efficiency and fuel economy.
- Easy-to-load Performance Series Buckets feature a wider mouth and curved side plates that improve material retention (fill factor).
- On-the-go disc-type front manual differential locks (front and rear fully automatic option) improve performance.
- Optional Aggregate Handler configuration option offers slightly higher payload capability for loose aggregate rehandling.*

Fuel Efficiency

- Up to 25% more fuel efficient than the M Series standard configuration and up to 35% more than the K Series standard configuration.**
- Power dense ACERT engine burns less fuel by providing power and torque when needed.
- Standard productive Economy Mode provides maximum fuel savings with minimal productivity impact.

*Requires conformance to Caterpillar payload policy. Consult your dealer or Caterpillar representative for availability and details.

**Actual results may vary based on factors such as, but not limited to, machine configuration, operator technique, machine application, climate, etc.

Ease of Operation

- Best-in-class operator environment provides unmatched comfort, visibility, and efficiency.
- E-H joystick steering with force feedback for precision control and dramatically decreases operator arm fatigue.
- Intuitive controls and touch screen multifunction display.
- Ride control system with dual accumulators provides excellent ride quality and lowers cab vibrations.

Safety

- Excellent cab access with wide door, remote door opening option and stair-like steps.
- Floor to ceiling windshield, large mirrors with integrated spot mirrors and rear vision camera provide industry leading all-around visibility.

Serviceability

- One-piece tilting hood with side and rear doors; hydraulic and electrical service centers make access fast and easy.
- Safe, ground level access to fuel fill and daily maintenance points.
- Optional, fully integrated Cat Autolube system provides full lube system monitoring and diagnostic test visibility.

Cat Connect Technology

- Monitor, manage and enhance job site operations.
- Cat LINK Technologies: VisionLink[®] enables owners to access data wirelessly to monitor machine health, utilization and location.
- Cat DETECT Technologies: Integrated rear vision camera enhances visibility behind machine to help operators work safely. Optional Cat Rear Object Detection increases operator awareness of the working environment.
- Cat PAYLOAD Technologies: Optional Cat Production Measurement 2.0 brings simple and accurate on-the-go payload scale allowing operators to deliver exact loads and work more efficiently. Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.



Cat® 972M XE Wheel Loader

Engine

| | | |
|--|----------------|---------------------|
| Engine Model | Cat C9.3 ACERT | |
| Maximum Net Power @ 1,600 rpm – SAE J1349 | 232 kW | 311 hp |
| Maximum Net Power @ 1,600 rpm – SAE J1349 (metric) | 315 hp | |
| Maximum Net Power @ 1,600 rpm – ISO 9249 | 232 kW | 311 hp |
| Maximum Net Power @ 1,600 rpm – ISO 9249 (metric) | 315 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 | 24 896 kg | 54,871 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 4.8 m³ (6.28 yd³) general purpose bucket with BOCE.

Bucket Capacities

| | | |
|-------------------|------------------------------|--------------------------------|
| Bucket Capacities | 3.20- 9.94 m ³ | 4.19- 13.00 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 (ISO 6395:2008) | 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 | 16 164 kg | 35,626 lb |
| Static Tipping Load – Full 37° Turn – No Tire Deflection | 17 421 kg | 38,396 lb |
| Breakout Force | 196 kN | 44,075 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 | 11 Seconds |

Dimensions

| | Standard Lift | | High Lift | |
|---|---------------|-------|------------|-------|
| Height to Top of Hood | 2818 mm | 9'2" | 2818 mm | 9'2" |
| Height to Top of Exhaust Pipe | 3522 mm | 11'6" | 3522 mm | 11'6" |
| 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 | 2500 mm | 8'2" | 2500 mm | 8'2" |
| Center Line of Rear Axle to Hitch | 1775 mm | 5'9" | 1775 mm | 5'9" |
| Wheelbase | 3550 mm | 11'7" | 3550 mm | 11'7" |
| Overall Length (without bucket) | 7774 mm | 25'6" | 8109 mm | 26'7" |
| Hinge Pin Height at Maximum Lift | 4458 mm | 14'7" | 4793 mm | 15'8" |
| Hinge Pin Height at Carry | 680 mm | 2'2" | 778 mm | 2'6" |
| Lift Arm Clearance at Maximum Lift | 3843 mm | 12'7" | 4140 mm | 13'7" |
| Rack Back at Maximum Lift | 56 degrees | | 71 degrees | |
| Rack Back at Carry Height | 50 degrees | | 49 degrees | |
| Rack Back at Ground | 41 degrees | | 39 degrees | |
| Maximum Width over Tires | 3009 mm | 9'10" | 3009 mm | 9'10" |
| Tread Width | 2230 mm | 7'3" | 2230 mm | 7'3" |

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

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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Replaces AEXQ1966
(N Am, Eur)

