



Cat[®] 966M

Wheel Loader

2017

The new 966M 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.

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

Reliability

- Cat[®] C9.3 ACERT™ engine and automatic Cat Regeneration System 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

- Heavy-duty powershift transmission and axles handle extreme applications.
- Full flow hydraulic filtration system with additional loop filtration improves hydraulic system robustness and component life.

Productivity

- Engine power increased by approximately 10% improves machine performance and response (compared to H Series).
- Lock-up clutch torque converter, combined with lock-to-lock shifting, delivers smooth shifts, fast acceleration and speed on grade.
- Z-bar linkage provides high breakout force at ground level.
- Easy-to-load Performance Series Buckets feature a wider mouth and curved side plates that improve material retention (fill factor) and decrease cycle times.
- On-the-go disc-type front manual differential locks (front and rear fully automatic option).
- Optional Aggregate Handler configuration offers slightly higher payload capability for loose aggregate rehandling.*

Fuel Efficiency

- Up to 10% more fuel efficient than K Series and up to 25% more fuel efficient than H Series loaders.**
- 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.

*Optional configurations and equipment may vary from region to region and requires conformance to Caterpillar payload policy. Consult your dealer or Caterpillar representative for 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 (steering wheel optional) with force feedback for precision control and dramatically decreases operator arm fatigue.
- Intuitive, ergonomic controls and touch screen multifunction display keep operators focused on their work.
- 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 means less servicing time is required.
- 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 which enhances site safety.
- 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.



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Engine

Engine Model	Cat C9.3 ACERT	
Maximum Power @ 1,800 rpm – SAE J1995	232 kW	311 hp
Maximum Power @ 1,800 rpm – SAE J1995 (metric)		315 hp
Maximum Power @ 1,800 rpm – ISO 14396	229 kW	307 hp
Maximum Power @ 1,800 rpm – ISO 14396 (metric)		311 hp
Maximum Net Power @ 1,700 rpm – SAE J1349	206 kW	276 hp
Maximum Net Power @ 1,700 rpm – SAE J1349 (metric)		280 hp
Maximum Net Power @ 1,700 rpm – ISO 9249	206 kW	276 hp
Maximum Net Power @ 1,700 rpm – ISO 9249 (metric)		280 hp
Peak Gross Torque (1,200 rpm) – SAE J1995	1599 N·m	1,179 lbf·ft
Peak Gross Torque (1,200 rpm) – ISO 14396	1581 N·m	1,166 lbf·ft
Maximum Net Torque (1,000 rpm)	1527 N·m	1,126 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
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- 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
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Transmission

Forward 1	6.5 km/h	4.0 mph	Reverse 1	7.1 km/h	4.4 mph
Forward 2	13.0 km/h	8.1 mph	Reverse 2	14.4 km/h	8.9 mph
Forward 3	23.5 km/h	14.6 mph	Reverse 3	25.9 km/h	16.1 mph
Forward 4	39.5 km/h	24.5 mph	Reverse 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)	70 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	109 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)	69 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	108 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	18.9 gal
Crankcase	24.5 L	6.5 gal
Transmission	54 L	14.3 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 (2,200 rpm)	360 L/min 95 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.

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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(N Am, Eur)

