966M/972M

Wheel Loaders

2017

	966M	972M
Engine Model	Cat® C9.3 ACERT™	Cat C9.3 ACERT
Maximum Power – ISO 14396	229 kW (311 hp metric)	247 kW (336 hp metric)
Maximum Net Power – ISO 9249	206 kW (280 hp metric)	223 kW (303 hp metric)
Bucket Capacities	3.20-7.40 m^3	3.20-9.94 m^3
Operating Weight	23 220 kg*	24 897 kg**

*For 4.2 m^3 general purpose buckets with bolt-on cutting edges.
**For 4.8 m^3 general purpose buckets with bolt-on cutting edges.

RELIABLE, PRODUCTIVE AND FUEL EFFICIENT

- *Up to 10% more fuel efficient than the industry-leading K Series**
- *Up to 25% more fuel efficient than H Series**
- ***Performance Series buckets** are easy to load and improve material retention*
- ***Cat Fusion™ coupler system and work tools** provide a wide range of work tools and allow the same work tool on different sizes of wheel loaders*
- ***Cat engine with ACERT Technology** meets EU Stage IV emission standards and includes Cat Clean Emissions Module for continuous and efficient operation*
- ***Advanced powershift transmission** with a standard lock up clutch torque converter and lock-to-lock shifting delivers smooth shifts, fast acceleration and speed on grade*
- ***Next generation axles** with standard on-the-go disc-type front manual differential locks provide optimal traction in varying underfoot conditions for improved productivity*
- ***Next generation load-sensing hydraulic system** provides optimal control of machine functions*

EASE OF OPERATION

- ***Best-in-class operator environment** for unmatched comfort and efficiency*
- ***Advanced technology with Cat Connect** monitors, manages and enhances job site operations*

SERVICE ACCESS

- *One-piece tilting hood, centralized service centers, windshield cleaning platform and harness tie-off provide the best in class service access*

Contents

**Fuel efficiency is measured in mass of material moved per volume of fuel burned. Average efficiency improvement as tested and analyzed for an average composite cycle and standard configuration with variations per comparable model with and without Economy Mode active. Factors influence result variation such as, but not limited to, machine configuration, operator technique, machine application, climate, etc.*

The 966M and 972M Wheel Loaders have a Stage IV ACERT engine equipped with a combination of proven electronic, fuel, air and aftertreatment components. Applying proven technologies systematically and strategically lets us meet your high expectations for productivity and fuel efficiency. Deep system integration results in reduced emissions, improved performance and improved fuel economy without interrupting machine performance making it seamless to you. The reliability, durability, and versatility of both the 966M and 972M result in machines that are better built to meet your needs.

Reliable

Proven Components and Technology You Can Count On.

Every Stage IV ACERT engine is equipped with a combination of proven electronic, fuel, air and aftertreatment components.

More Powerful, Reliable Engine Electronics

The electronics used in Cat Stage IV engines are more powerful and robust than ever. Increased features and connection commonality improve the customer experience and increase quality and reliability. Over-foam wiring harness adds to reliability even in the most demanding applications.

Hydraulics

The 966M and 972M hydraulic systems have significant design changes and customer value improvements. The main hydraulic valve is a mono-block with an integrated ride control section. The mono-block design reduces weight, has forty percent fewer leak points and is common across all M Series models. Auxiliary third and fourth hydraulic functions can be easily added at the factory or in the field with the addition of a second remote valve.

Equipment Monitoring

Cat Connect technologies and Cat dealer services take the guesswork out of equipment management. Product Link™ and the online VisionLink® application enable you to monitor real-time machine data and manage machines health. Your Cat dealer offers expert advice and S·O·S℠ Services to maintain equipment reliability and efficiency.

Cold Start Package

The optional cold start package provides dependable starts in extreme cold weather and high altitudes.

Durable

Better Designed to Meet Your Needs.

Frames

The robotically welded two-piece structural frame design provides strong and rigid structures that absorb all the forces associated to penetration, loading and twisting.

The M Series articulating hitch system, joining the front and rear frames, provides high bearing force capacity.

Axles

The M Series axles are designed to handle extreme applications resulting in reliable performance and durable life. The rear axle can oscillate to ±13 degrees helping to ensure all four wheels stay on the ground providing stability even in the roughest terrain, for excellent stability and traction.

Productive
Work Smart and Move More.

The right technologies fine-tuned for the right applications result in:

- **High Performance** across a variety of applications.
- **Unsurpassed Reliability** through commonality and simplicity of design.
- **Maximized Uptime and Reduced Cost** with world-class support from the Cat dealer network.
- **Minimized Impact of Emission Systems** – Designed to be transparent to you without requiring interaction.
- **Durable Designs** with long life to overhaul.
- **Delivering Better Fuel Economy** with minimized maintenance costs while providing the same great power and response.

Hydraulics

The dual accumulator ride-control system enables it to be more effective over a greater payload range, increasing productivity and your efficiency due to a better ride.

The next generation implement pump continuously and automatically balances hydraulic loads resulting in the machine performance you need. Engine response is improved as is performance at higher altitudes.

Transmission

The 966M and 972M power trains feature a lock-up clutch torque converter standard. The torque converters have been matched with the engine power and hydraulics to improve performance and fuel efficiency. These rugged planetary transmissions also have a split-flow oil system which use multi-viscosity oil to improve fuel economy.

Axles

In addition to aggregates, sand and gravel and batch plants, these models are commonly used in heavy construction applications where poor underfoot conditions make traction difficult slowing production and challenging job deadlines. The on-the-go disc-type differential locks will improve tractive ability in these applications thereby increasing productivity. These models come standard with a front axle differential lock which is manually activated by a switch on the floor. Optional fully automatic front and rear axle differential locks operate by measuring differences in wheel speeds and require no operator intervention to activate. These disc-type differential locks reduce tire scuffing compared to other traction aids further reducing operating costs for customers.

The 966M and 972M feature an external caliper disc parking brake mounted to the input shaft of the front axles eliminating the inefficiencies posed by wet parking brakes. Additionally, the external caliper parking brake is easily accessible for inspection and service; there is no oil to change reducing fuel and maintenance costs.

Fuel Efficient

Engineered to Lower Your Operating Costs.

Engine and Emissions

The Cat C9.3 ACERT engine is designed for maximum fuel efficiency and increased power density, while meeting Stage IV emission standards. This engine features innovative Cat electronics, fuel injection process, air-management systems, aftertreatment solution with Cat Selective Catalytic Reduction, and a fuel efficient regeneration system.

Advanced Systems with Innovative Integration

The deep system integration of the engine and emissions system, power train, hydraulic system and cooling system intelligently lower the average working engine speeds and reduce the overall system heat loads which result in significantly increased performance and fuel efficiency. The 966M and 972M are up to 10% more fuel efficient on average compared to the 966K and 972K, they are second only to the 966M XE and 972M XE which are the class leaders in fuel efficiency.

Economy Mode

The productive economy mode automatically controls the engine torque and speed based on the machine's power train load and places engine speed and torque in the most efficient operating range. The result is a further reduction of the fuel consumption while delivering performance similar to K Series.

Next Generation Fuel Systems

Cat injection timing precisely controls the fuel injection process through a series of carefully timed microbursts, providing more control of combustion for the cleanest, most efficient fuel burn. On 966M and 972M, the high pressure common rail fuel system boosts performance and reduces soot for the C9.3 ACERT engine.

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 drives down combustion temperatures and reduces NO_X emissions.

Aftertreatment Technologies

To meet the additional 80% reduction in NO_X emissions required by Stage IV emission standards, the Selective Catalytic Reduction (SCR) system has been added to the already proven Cat Stage IIIB aftertreatment solution.

Easy to Operate
Safe. Comfortable. Efficient.

Improving your efficiency remains a key design goal for the 966M and 972M. By ensuring you are safe, confident in the control of your machine, have a clean, comfortable and quiet operating environment with controls that are intuitive and low effort, you will be less fatigued, more efficient and more productive.

Cab Access

An optional remote switch can be installed in the electronic service center which unlatches the door allowing the gas strut to swing the door open while you are safely on the ground. The angle of the steps up to the cab is at an optimal 15 degrees enabling you to walk up like stairs versus climbing more vertically like a ladder. Grab handles have been repositioned so you can maintain three points of contact at all times.

Visibility

Once in the cab, the door securely seals against the roll-formed ROPS posts and the lower glass panel extends several inches down to improve visibility to the left side of the machine. Large convex mirrors improve visibility to the rear and integrated spot mirrors provide visibility close to both sides of the machine.

Sound and Vibration

Viscous cab mounts connect the cab to the machine's frame, decreasing noise and vibration which means you will be able to be more efficient and productive all day long in a sustainable work environment.

Central Display

The central display panel has a large text box, six analog gauges, and LED warning indicators. The large text box provides in-language information about machine operation, feature activation and system troubleshooting and calibration. With the six large analog gauges, you can easily identify if key systems are within normal operating range.

Touch Screen Display

A multipurpose color touch screen display dramatically simplifies the operator interface; with machine controls, rear vision camera and new fully integrated Cat Production Measurement system. Intuitive navigation with in-language text enables you to modify certain machine operating parameters and monitor machine conditions literally at the touch of their fingers.

Control Panel

Sealed against moisture and dirt, the centralized switch panel with LEDs provides reliability and ready access to frequently required functions, even while wearing gloves. The ISO symbols located on each membrane switch are molded all the way through to ensure the image will not wear off over time.

The M Series maintains the “help” feature which explains the function of each membrane switch.

Focusing on your efficiency, the control panel has been streamlined to include easy to reach highly utilized machine controls. The touch screen display enables the relocation of some expanded functions while eliminating the need for a second switch panel for further simplicity and easy machine operation.

Electro-Hydraulic (EH) Joystick Steering with Force Feedback (Speed Sensitive)

You will enjoy and quickly adapt to the industry-leading, seat-mounted EH joystick steering system, which provides precision control and dramatically decreases your arm fatigue. If you prefer a steering wheel, an electro-hydraulic steering wheel is available as an option.

Implement Controls (EH)

Seat mounted implement controls provide you with precise control of the work tool, all while moving with the seat for maximum comfort. In-cab programmable kick-outs and automatic cylinder snubbing are easy to set on-the-go for tilt, lower and lift, ideal for repeatable cycles.

Ride Control

The next generation of ride control works as a shock absorber, improving ride quality and smoothness over rough terrain, increasing your confidence, comfort and efficiency, ensuring excellent material retention.

Versatile

Linkage and Guard Options to Meet Your Various Applications Needs.

Standard Z-bar Linkage

The proven Z-bar linkage combines digging efficiency with excellent visibility to the tool resulting in excellent penetration into the pile, high breakout forces and superior production capabilities.

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.

Aggregate Handler

Aggregate packages are specialized offerings for specific loose aggregate rehandling applications, such as truck loading, hopper charging, stockpiling, and load and carry. Rehandling loose aggregate is less stressful to the machine, therefore payloads can be increased above other applications by installing larger buckets and counterweights.

To do so, the Cat aggregate packages require conformance to Caterpillar payload policy. Misapplication of Aggregate Handlers may result in significant reliability and durability risk.

Industrial and Waste Handler

The Industrial and Waste Packages offer integrated guards to preserve your machine from the harsh environment of a scrap or waste handling application.

Forestry Arrangement

The 966M Forestry package includes a heavy duty linkage, a larger tilt cylinder and an heavier counterweight to safely handle the larger loads met in logging and millyard applications.

Steel Mill Arrangement:

The 972M Steel Mill package includes all the modifications required to allow the removal and handling of hot slag while providing additional protection for you and the machine in these extreme applications.

Versatile

Do More Jobs with One Machine, Fusion Quick Coupler and Various Work Tools.

An extensive range of work tools and bucket styles are available to customize these machines for your operation. Work tools are available either with pin-on or quick coupler interface.

Performance Series Buckets

- **Load Easy, Fuel Efficient, Carry More** – Performance Series Buckets utilize a system-based approach to balance bucket shape with the machine's linkage, weight, lift and tilt capacities. You benefit from reduced dig times and better material retention; ultimately translating into significant productivity and fuel efficiency improvements.
- **Lower Operating Costs** – Performance Series Buckets feature a longer floor that easily digs through the pile and provides excellent visibility for you to see when the bucket is full. Less time digging in the pile results in lower fuel consumption and improved tire life. A unique spill guard protects the cab and linkage components from material overflow.
- **Higher Productivity** – Performance Series Buckets achieve higher fill factors – ranging from 100% to 115% depending on the machine application and material type. The buckets feature a curved side profile to maximize material retention. The optimized design results in unsurpassed production capabilities.

Fusion Quick Coupler

Improved Machine Performance

Fusion is the patented wheel loader coupler system from Caterpillar. The Fusion Coupler System provides performance virtually identical to pin-on – with all the flexibility of a quick coupler system. The Fusion Coupler sits back, close in to the loader arms – minimizing offset and increasing the machine's performance.

No Loss of Performance

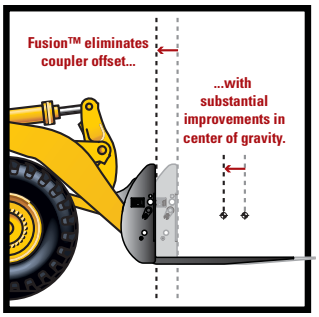
Fusion is designed to integrate the work tool and the machine by pulling the coupler and tool closer in to the loader. As a result, the center of gravity is moved inward, towards the machine. This translates to increased lifting ability when compared to machines equipped with other coupler systems.

Unsurpassed Durability

An advanced wedging mechanism creates a tight, rattle-free fit. This patented lock up system eliminates play and wear – resulting in a long service life.

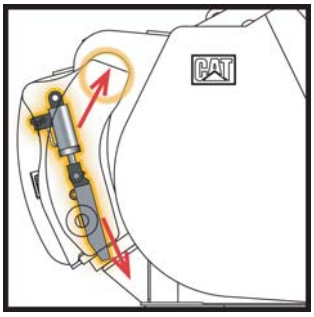
Increased Visibility

An open coupler frame design clears sight lines from the seat, making it easier than ever before to engage and disengage attachments with certainty.



Common Interface Compatibility

The Fusion Coupler System not only allows one machine to use a range of work tools, but also allows one work tool to be picked up by machines of many different sizes.



Integrated Technologies

Monitor, Manage, and Enhance Job Site Operations.

Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect services are also available from your dealership including:

EQUIPMENT MANAGEMENT

Equipment Management – increase uptime and reduce operating costs.

PRODUCTIVITY

Productivity – monitor production and manage job site efficiency.

SAFETY

Safety – enhance job site awareness to keep your people and equipment safe.

Consult your local dealer on the services available.

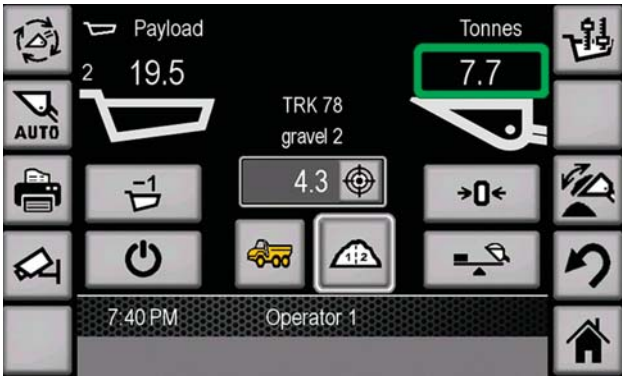
Featured Cat Connect technologies include:

LINK Technologies

LINK technologies wirelessly connect you to your equipment giving you access to essential information you need to know to run your business. Link data can give you valuable insight into how your machine or fleet is performing so you can make timely, fact-based decisions that can boost job site efficiency and productivity.

Product Link/VisionLink

- Product Link is deeply integrated into your machine to take the guesswork out of equipment management.
- Easy access to timely information like machine location, hours, fuel usage, idle time and event codes via the online VisionLink user interface can help you effectively manage your fleet and lower operating cost.



PAYLOAD Technologies

PAYLOAD technologies provide accurate weighing of materials being loaded and hauled. Payload data is displayed for loader operators in real-time to improve productivity, reduce overloading, and recorded to track material movement by shift.

Cat Production Measurement 2.0 (Optional)

- Brings payload weighing to the cab, enabling you to weigh loads "on-the-go" during loading operations.
- Integrated Cat multi-function touchscreen display with graphical user interface is easy to understand and adds no clutter to the cab.
- Easy calibration procedure requires no special tools and reduces operational complexity.
- Low Lift Weigh and Tip-off features enable faster loading of trucks to their maximum capacity.
- VisionLink common back-office interface provides you a quick summary of loader operations, including payload productivity and efficiency.
- Optional Advanced Productivity subscription provides comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.

DETECT Technologies

DETECT technologies enhance operator awareness of the environment around working equipment and provide alerts to help keep people and assets safe.

Rear Vision Camera

- Integrated into standard display, enhances visibility behind the machine helping you work confidently.
- Optional second display can be added to provide a dedicated rear view of the job site.

Rear Object Detection (Optional)

- Integrated into touchscreen display, the radar system warns you of an object in critical zone while going in reverse.
- Increased awareness of the working environment enhances site safety.

Owning Costs
Proven Best Investment.

Customer Support Agreements
A Customer Support Agreement (CSA) is an arrangement between you and your Cat dealer that helps you lower your total cost per ton. CSAs are flexible, allowing them to be tailored to your business needs. They can range from simple Preventive Maintenance Kits to elaborate Total Cost Performance Guarantees. Having a CSA with your Cat dealer enables more time for you to do what you do best – run your business.

Monitoring Systems
Monitoring product health is key to optimizing the life of an investment into a Cat Wheel Loader.

- **Cat Product Link** – Cat Product Link allows remote monitoring of equipment to improve overall fleet management effectiveness. Product Link is deeply integrated into machine systems. Events and diagnostic codes, as well as hours, fuel, idle time and other detailed information are transmitted to a secure web based application, VisionLink. VisionLink includes powerful tools to convey information to users and dealers, including mapping, working and idle time, fuel level and more.
- **S·O·S Services** – Helps manage component life and decrease machine downtime, increasing productivity and efficiency. Regular fluid sampling can help track what is going on inside your machine. Wear related problems are predictable and easily repairable. Maintenance can be done to accommodate your schedule, resulting in increased uptime and flexibility in maintenance repairs before failure.

Cat Autolube System
The optional, fully integrated Cat Autolube system provides full system monitoring and diagnostic test visibility by being integrated into the machine, display and VisionLink. Easy access to the refill pump and grease zerks means simple, fast servicing.

Parts Availability
Caterpillar provides an unsurpassed level of personalized service to help you work more cost effectively and efficiently. By utilizing a worldwide parts network Cat dealers help minimize machine downtime and save money by delivering replacement parts within 24 hours.

Resale Value
Owning quality equipment is an important factor in maintaining resale value. Caterpillar is not only known for machines that are better built, but provides product and dealer support to maintain the reliability and durability of your machine.

Operating Costs

Save Time and Money by Working Smart.

Data from customer machines show Cat wheel loaders are the most fuel efficient machines in the industry. Several features contribute to this excellent fuel efficiency:

- **M Series Stage IV Engine, Hydraulics, Transmission and Ride Control** – Deep system integration results in reduced emissions, more productivity, lower fuel consumption, without interrupting machine performance.
- **Manual/Automatic Differential Locks** – Increase traction, reduce tire scuffing compared to other traction aids, further reducing your operating costs.
- **The intelligent ECO mode** optimizes engine torque and speed to further reduce fuel consumption.
- The adjustable **Automatic Idle Engine Shutdown System** significantly reduces idle time, overall operating hours and fuel consumption.
- **External Caliper Disc Parking Brakes** – Easily accessible for maintenance.
- **Lock-up-Clutch Torque Converter and Shift Strategy** – Reduced torque interruption increases driveline efficiency, conserving fuel. Auto 1-4 transmission mode keeps engine rpm low, reducing fuel consumption while delivering optimal machine performance.
- **Performance Series Buckets** – Deliver faster fill times and better material retention, ultimately reducing cycle times while improving productivity and fuel efficiency.

Machine configuration, operator technique and job site layout can impact fuel consumption by as much as 30 percent. Select the correct linkage, guarding, work tool and tire type based on machine application.

Enabling Application Efficiency

- **Loading Bucket** – Load in first gear and keep engine rpm low. Raise and tilt bucket smoother, with Caterpillar's multi-function capability, and do not use a "pumping" motion. Avoid lift lever detent and use of transmission neutralizer.
  Use programmable kick-outs and automatic cylinder snubbing during repeated cycles.
- **Loading Truck or Hopper** – Do not raise the work tool any higher than necessary. Keep engine rpm low and unload in controlled manner.
- **Idle** – Set the parking brake to engage Engine Idle Management System to conserve fuel.
- **Job Site Layout** – Spot loading targets in the right position. Avoid traveling more than twice the machine length during short cycle loading. Reduce transport distance for load and carry cycles by optimizing job site layout.

Serviceable

Easy to Maintain. Easy to Service.

Engine Access ①

The Cat sloped “one-piece” tilting hood provides industry-leading access to the engine. Its design has been improved on all M Series wheel loaders to provide the best-in-class service access to engine, oil levels and coolant sight gauge.

Cooling System ②

The cooling system is readily accessible for clean out and maintenance. With six cooling fins per 25.4 mm and a perforated grill, most airborne debris entering the system passes through the cooler cores. The hydraulic and A/C cooler cores swing out providing easy access to both sides for cleaning. An access panel on the left side of the cooling package swings down to provide access to the back side of the engine coolant and Air-to-Air After Cooler (ATAAC). An optional variable pitch fan can automatically purge the cooler cores by periodically reversing the airflow when needed.

Service Centers

The electrical ③ and hydraulic ④ service centers provide grouped access to numerous features, enhancing safety and convenience for you and your service technicians, while reducing service time.

The electrical service center, located beneath the left platform, contains the maintenance free batteries, a fuse relay panel, main disconnect switch, engine shutdown switch, hood tilt switch, and the jump start receptacle.

The hydraulic service centers are now virtually identical for the M Series product line. This consistent layout makes it easier for service technicians who work on a variety of M Series models.

Hydraulic system components on the 966M and 972M are protected by full flow and kidney-loop filtration. A filter in the hydraulic tank return line filters all of the oil returning to the tank. There is also a case drain screen for additional protection and finally, a separate kidney-loop filter with a finer micron rating continuously filters smaller particles out of the system. This multilevel design ensures the hydraulic oil is clean and thoroughly protects the rest of the hydraulic system from contamination. A thermal bypass valve improves hydraulic system warm-up.

Sustainable
Conserving Resources.

The 966M and 972M are designed to compliment your business plan, reduce emissions and minimize the consumption of natural resources.

- Improved fuel efficiency – less fuel consumed results in lower emissions.
- Machines are built with a 97% recyclability rate (ISO 16714) to conserve valuable natural resources and further enhance machine end of life value.
- Improved operator efficiency through enhanced visibility and reduced noise levels.
- Link technologies enable you to collect and analyze equipment and job site data so you can maximize productivity and reduce costs.
- Major components are rebuildable, eliminating waste and saving money by giving the machine and/or major components a second life – and even a third life.

Customer Support
Unmatched Support Makes the Difference.

Renowned Cat Dealer Support

- Your Cat dealer is ready to help you every step of the way. From new or used machine sales, to rental or rebuild options, your Cat dealer can provide an optimal solution to your business needs.
- Unsurpassed worldwide parts availability, trained technicians and customer support agreements maximize your machine uptime.
- Financing options are offered to meet a variety of customer needs.

966M/972M Wheel Loaders Specifications

Engine – 966M

Engine Model	Cat C9.3 ACERT
Maximum Gross Power (1,800 rpm)	
SAE J1995	232 kW (315 hp metric)
Maximum Power (1,800 rpm)	
ISO 14396	229 kW (311 hp metric)
Maximum Net Power (1,700 rpm)	
ISO 9249	206 kW (280 hp metric)
Peak Gross Torque (1,200 rpm)	
SAE J1995	1599 N·m
Peak Torque (1,200 rpm)	
ISO 14396	1581 N·m
Maximum Net Torque (1,000 rpm)	
ISO 9249	1527 N·m
Bore	115 mm
Stroke	149 mm
Displacement	9.3 L

- Meets Stage IV emission standards.
- The power ratings apply at the stated speed when tested under the reference conditions for the specified standards.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner and aftertreatment.
- The gross power advertised is with the fan at maximum speed.

Buckets – 966M

Bucket Capacities	3.20-7.40 m³

Weight – 966M

Operating Weight	23 220 kg

- 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 general purpose bucket with bolt-on cutting edges.

Operating Specifications – 966M

Static Tipping Load – Full 37° Turn	
With Tire Deflection	14 668 kg
No Tire Deflection	15 822 kg
Breakout Force	173 kN

- 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.

Engine – 972M

Engine Model	Cat C9.3 ACERT
Maximum Gross Power (1,800 rpm)	
SAE J1995	251 kW (341 hp metric)
Maximum Power (1,800 rpm)	
ISO 14396	247 kW (336 hp metric)
Maximum Net Power (1,700 rpm)	
ISO 9249	223 kW (303 hp metric)
Peak Gross Torque (1,200 rpm)	
SAE J1995	1728 N·m
Peak Torque (1,200 rpm)	
ISO 14396	1710 N·m
Maximum Net Torque (1,000 rpm)	
ISO 9249	1654 N·m
Bore	115 mm
Stroke	149 mm
Displacement	9.3 L

- Meets Stage IV emission standards.
- The power ratings apply at the stated speed when tested under the reference conditions for the specified standards.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner and aftertreatment.
- The gross power advertised is with the fan at maximum speed.

Buckets – 972M

Bucket Capacities	3.20-9.94 m³

Weight – 972M

Operating Weight	24 897 kg

- 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 general purpose bucket with bolt-on cutting edges.

Operating Specifications – 972M

Static Tipping Load – Full 37° Turn	
With Tire Deflection	16 164 kg
No Tire Deflection	17 421 kg
Breakout Force	196 kN

- 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.

Transmission – 966M

Forward 1	6.5 km/h
Forward 2	13.0 km/h
Forward 3	23.5 km/h
Forward 4	39.5 km/h
Reverse 1	7.1 km/h
Reverse 2	14.4 km/h
Reverse 3	25.9 km/h
Reverse 4	39.5 km/h

- Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 826 mm roll radius.

Transmission – 972M

Forward 1	6.7 km/h
Forward 2	13.1 km/h
Forward 3	23.2 km/h
Forward 4	39.5 km/h
Reverse 1	7.6 km/h
Reverse 2	15.0 km/h
Reverse 3	26.5 km/h
Reverse 4	39.5 km/h

- Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 826 mm roll radius.

Brakes

Brakes	Brakes meet ISO 3450:2011 standards

Hydraulic System

Implement Pump Type	Variable Displacement Piston
Implement System	
Maximum Pump Output (2,200 rpm)	360 L/min
Maximum Operating Pressure	31 000 kPa
Maximum Flow – Optional 3rd/4th Function	240 L/min
Maximum Pressure – Optional 3rd/4th Function	21 780 kPa

Hydraulic Cycle Time with Rated Payload	966M	972M
Raise from Carry Position	6.1 Sec.	6.1 Sec.
Dump, at Maximum Raise	1.4 Sec.	1.5 Sec.
Lower, Empty, Float Down	2.6 Sec.	3.1 Sec.
Total	10.1 Sec.	10.7 Sec.

Axles

Front	Fixed
Rear	Oscillating ±13 degrees
Maximum Single-Wheel Rise and Fall	502 mm

Cab

ROPS/FOPS	ROPS/FOPS meet ISO 3471:2008 and ISO 3449:2005 Level II standards

Sound

The sound values indicated below are for specific operating conditions only. Machine and operator sound levels will vary at different engine and/or cooling fan speeds. Hearing protection may be needed when the machine is operated with a cabin that is not properly maintained, or when the doors and/or windows are open for extended periods or in a noisy environment.

Operator Sound Pressure Level (ISO 6396:2008)	69 dB(A)*
Exterior Sound Power Level (ISO 6395:2008) European Union Directive "2000/14/EC" as amended by "2005/88/EC"	108 dB(A)*
Exterior Sound Pressure Level (SAE J88:2013)	76 dB(A)**

*For a standard machine configuration, measured according to the procedures specified with the cooling fan speed set at 70% of maximum value.

**For a standard machine configuration, measured according to the procedures specified. The measurement was conducted under the following conditions: distance of 15 m, moving forward in second gear ratio with the cooling fan speed set at maximum value.

Service Refill Capacities

Fuel Tank	302 L
DEF Tank*	16.8 L
Cooling System	71.6 L
Crankcase	24.5 L
Transmission	58.5 L
Differentials and Final Drives – Front	57 L
Differentials and Final Drives – Rear	57 L
Hydraulic Tank	125 L

*DEF must meet the requirements outlined in ISO 22241-1.

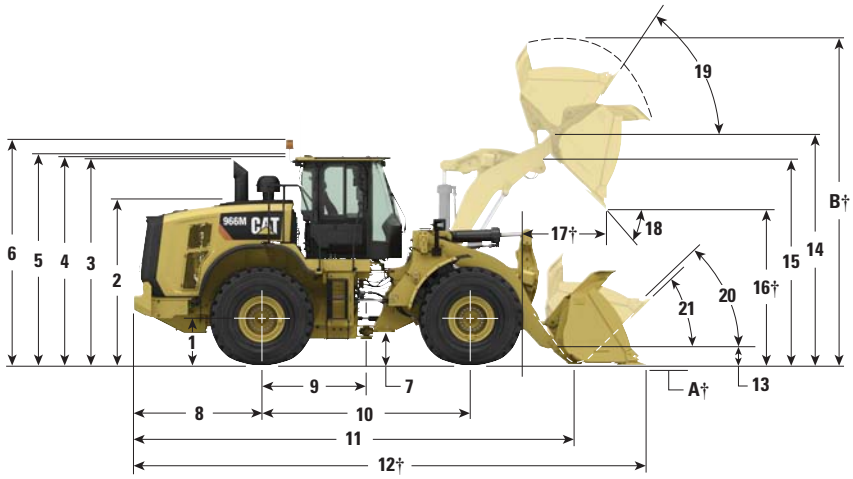
Air Conditioning System

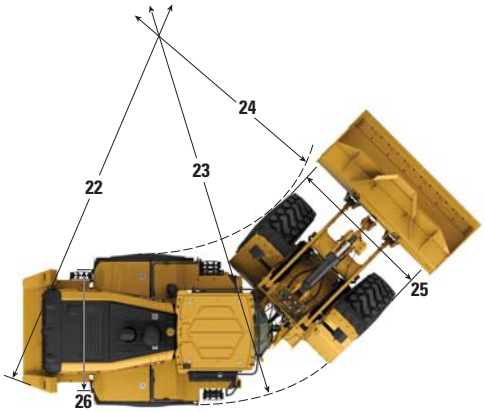
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO_2 equivalent 2.288 metric tonne.

966M/972M Wheel Loaders Specifications

966M/972M Dimensions

All dimensions are approximate.





	966M Standard Lift	966M High Lift	972M Standard Lift	972M High Lift
1 Height to Axle Centerline	799 mm	799 mm	799 mm	799 mm
2 Height to Top of Hood	2818 mm	2818 mm	2818 mm	2818 mm
3 Height to Top of Exhaust Pipe	3522 mm	3522 mm	3522 mm	3522 mm
4 Height to Top of ROPS	3587 mm	3587 mm	3587 mm	3587 mm
5 Height to Top of Product Link Antenna	3636 mm	3636 mm	3636 mm	3636 mm
6 Height to Top of Warning Beacon	3859 mm	3859 mm	3859 mm	3859 mm
7 Ground Clearance	434 mm	434 mm	434 mm	434 mm
8 Center Line of Rear Axle to Edge of Counterweight	2180 mm	2500 mm	2500 mm	2500 mm
9 Center Line of Rear Axle to Hitch	1775 mm	1775 mm	1775 mm	1775 mm
10 Wheelbase	3550 mm	3550 mm	3550 mm	3550 mm
11 Overall Length (without bucket)	7289 mm	8109 mm	7774 mm	8109 mm
12 Shipping Length (with bucket level on ground)*†	8750 mm	9570 mm	9315 mm	9650 mm
13 Hinge Pin Height at Carry Height	630 mm	778 mm	680 mm	778 mm
14 Hinge Pin Height at Max Lift	4235 mm	4793 mm	4458 mm	4793 mm
15 Lift Arm Clearance at Max Lift	3643 mm	4140 mm	3843 mm	4140 mm
16 Dump Clearance at Max Lift and 45° Discharge*†	2991 mm	3549 mm	3154 mm	3490 mm
17 Reach at Max Lift and 45° Discharge*†	1353 mm	1328 mm	1357 mm	1380 mm
18 Dump Angle at Max Lift and Dump (on stops)*	49 degrees	48 degrees	48 degrees	48 degrees
19 Rack Back at Max Lift*	62 degrees	71 degrees	56 degrees	71 degrees
20 Rack Back at Carry Height*	50 degrees	49 degrees	50 degrees	49 degrees
21 Rack Back at Ground*	42 degrees	39 degrees	41 degrees	39 degrees
22 Turning Radius to Counterweight	6804 mm	6804 mm	6804 mm	6804 mm
23 Turning Radius to Outside of Tires	6761 mm	6761 mm	6761 mm	6761 mm
24 Turning Radius to Inside of Tires	3853 mm	3853 mm	3853 mm	3853 mm
25 Max Width over Tires (unloaded)	2991 mm	2991 mm	2991 mm	2991 mm
Max Width over Tires (loaded)	3009 mm	3009 mm	3009 mm	3009 mm
26 Tread Width	2230 mm	2230 mm	2230 mm	2230 mm

*966M Standard and High Lift are with 4.2 m³ general purpose pin-on bucket with bolt-on cutting edges (see Operating Specifications for other buckets).
972M Standard and High Lift are with 4.8 m³ general purpose pin-on bucket with bolt-on cutting edges (see Operating Specifications for other buckets).

†Dimensions are listed in Operating Specification charts.

All height and tire related dimensions are with Michelin 26.5R25 XHA2 L3 tires (see Dimension changes – Tires Chart for other tires). "Width over Tires" dimensions are over the bulge and include growth.

Dimension Changes – Tires

Tire Brand	Michelin	Michelin	Michelin	Bridgestone	Bridgestone
Tire Size	**26.5R25**	**26.5R25**	**26.5R25**	**26.5R25**	**26.5R25**
Tread Type	**L-4**	**L-5**	**L-5**	**L-3**	**L-4**
Tread Pattern	**XLDD1**	**XLDD2**	**XMINED2**	**VJT**	**VSNT**
Width over Tires – Maximum (empty)*	2987 mm	2986 mm	2970 mm	2982 mm	2973 mm
Width over Tires – Maximum (loaded)*	3019 mm	3011 mm	2994 mm	3016 mm	2993 mm
Change in Vertical Dimensions (average of front and rear)	44 mm	39 mm	53 mm	15 mm	25 mm
Change in Horizontal Reach	–36 mm	–34 mm	–32 mm	–3 mm	–24 mm
Change in Clearance Circle (radius) to Outside of Tires	–5 mm	–1 mm	7 mm	–3 mm	8 mm
Change in Clearance Circle (radius) to Inside of Tires	–5 mm	–1 mm	7 mm	–3 mm	8 mm
Change in Operating Weight (without Ballast)	420 kg	716 kg	1068 kg	164 kg	624 kg

Changes Specific to the 966M

Change in Static Tipping Load – Straight	303 kg	517 kg	771 kg	118 kg	451 kg
Change in Static Tipping Load – Articulated	271 kg	461 kg	688 kg	106 kg	402 kg

Changes Specific to the 972M

Change in Static Tipping Load – Straight	283 kg	482 kg	719 kg	110 kg	420 kg
Change in Static Tipping Load – Articulated	252 kg	429 kg	640 kg	98 kg	374 kg

Dimension Changes – Tires

Tire Brand	Bridgestone	Bridgestone	Flexport™	Flexport
Tire Size	**26.5R25**	**775/65R29**	**70×14×28 (26.5×25)**	**70×14×28 (26.5×25)**
Tread Type	**L-5**	**L-3**	**—**	**—**
Tread Pattern	**VSDL**	**VTS**	**OTR**	**SMOOTH**
Width over Tires – Maximum (empty)*	2874 mm	3080 mm	2955 mm	2896 mm
Width over Tires – Maximum (loaded)*	2900 mm	3101 mm	2972 mm	2915 mm
Change in Vertical Dimensions (average of front and rear)	50 mm	17 mm	59 mm	52 mm
Change in Horizontal Reach	–29 mm	–5 mm	–23 mm	–13 mm
Change in Clearance Circle (radius) to Outside of Tires	–54 mm	46 mm	–19 mm	–47 mm
Change in Clearance Circle (radius) to Inside of Tires	–54 mm	46 mm	–19 mm	–47 mm
Change in Operating Weight (without Ballast)	1136 kg	856 kg	3287 kg	3764 kg

Changes Specific to the 966M

Change in Static Tipping Load – Straight	821 kg	618 kg	2375 kg	2719 kg
Change in Static Tipping Load – Articulated	732 kg	551 kg	2118 kg	2425 kg

Changes Specific to the 972M

Change in Static Tipping Load – Straight	764 kg	576 kg	2212 kg	2533 kg
Change in Static Tipping Load – Articulated	680 kg	513 kg	1969 kg	2255 kg

*Width over bulge and includes tire growth.

Note: Changes compared to:

– 966M with Michelin 26.5R25 XHA2 L3 radial tires.

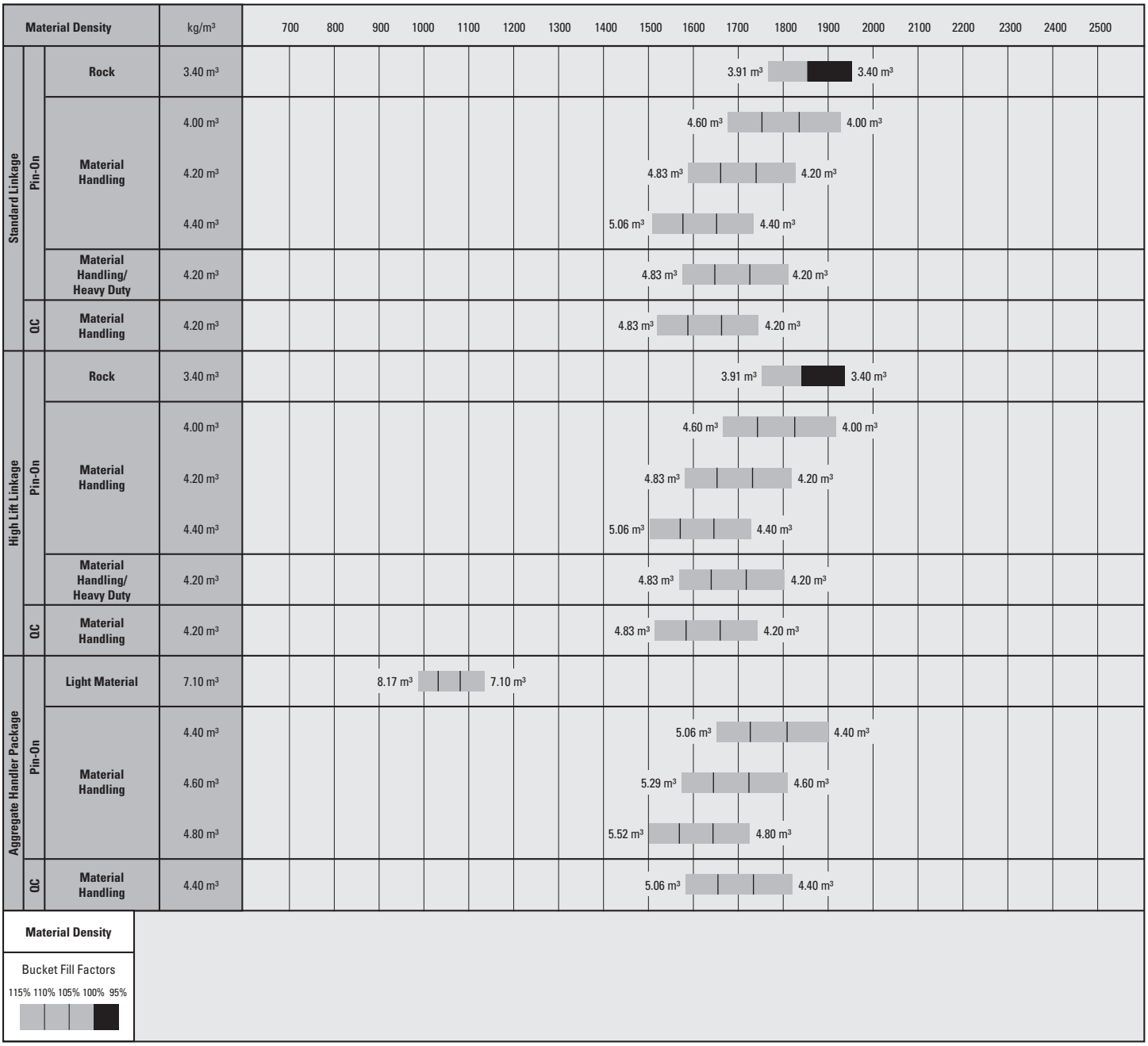
– 972M with Michelin 26.5R25 XHA2 L3 radial tires.

966M Bucket Fill Factors and Selection Chart

The bucket size must be chosen based on the density of the material and on the expected fill factor. The Cat Performance Series Buckets with longer floor, larger bucket opening, increased repository angle, rounded side boards and integrated spill guard, demonstrate fill factors significantly higher than previous generation or non Cat buckets. The actual volume handled by the machine is thus often larger than the rated capacity.

Loose Material		Fill Factor (%)*	Material Density
Earth/Clay		115	1500-1700 kg/m³
Sand and Gravel		115	1500-1700 kg/m³
Aggregate:	25-76 mm	110	1600-1700 kg/m³
	19 mm and smaller	105	1800 kg/m³
Rock:	76 mm and larger	100	1600 kg/m³

*As a % of ISO rated capacity.
Note: Fill Factors achieved will also depend on whether the product is washed or not washed.



Note: All buckets are showing Bolt-On Edges.
QC = Quick Coupler

966M Operating Specifications with Buckets

Machine			Standard Linkage						High Lift Linkage Change**
Pin/Quick Coupler			Pin-On				Fusion QC	Universal QC	
Bucket Type			Material Handling		Material Handling Heavy Duty		Material Handling	Material Handling	
Edge Type			Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	FMT	Bolt-On Cutting Edges	Bolt-On Cutting Edges	
	Capacity – Rated	m³	4.20	4.20	4.20	4.20	4.20	4.20	—
	Capacity – Rated at 110% Fill Factor	m³	4.62	4.62	4.62	4.62	4.62	4.62	—
	Width	mm	3220	3271	3220	3201	3220	3220	—
16†	Dump Clearance at Maximum Lift and 45° Discharge	mm	2949	2787	2949	3001	2899	2787	559
17†	Reach at Maximum Lift and 45° Discharge	mm	1245	1372	1245	1236	1296	1498	–25
	Reach at Level Lift Arm and Bucket Level	mm	2774	2978	2774	2731	2845	3067	404
A†	Digging Depth	mm	124	124	124	94	124	60	–25
12†	Shipping Length (with Bucket)	mm	8721	8946	8721	8653	8792	8961	825
B†	Overall Height with Bucket at Maximum Lift	mm	5901	5901	5901	5940	5943	6134	559
	Loader Clearance Circle Radius with Bucket at Carry Position	mm	7504	7589	7504	7473	7519	7561	242
	Static Tipping Load, Straight (With Tire Deflection)*	kg	16 580	16 398	16 465	16 155	15 919	14 950	55
	Static Tipping Load, Straight (No Tire Deflection)*	kg	17 731	17 546	17 615	17 312	17 052	16 058	–32
	Static Tipping Load, Articulated (With Tire Deflection)*	kg	14 605	14 421	14 489	14 162	13 969	13 078	–128
	Static Tipping Load, Articulated (No Tire Deflection)*	kg	15 740	15 555	15 623	15 307	15 091	14 177	–187
	Breakout Force***	kN	177	175	176	180	167	141	–15
	Operating Weight*	kg	23 217	23 355	23 336	23 706	23 678	23 889	1612

*Static tipping loads and operating weights are 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 and sound suppression.

**Maximum values.

***Measured 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

FMT = Flush Mounted Teeth
QC = Quick Coupler

Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

966M/972M Wheel Loaders Specifications

966M Operating Specifications with Buckets

Machine			Standard Linkage						High Lift Linkage Change**
Pin/Quick Coupler			Pin-On						
Bucket Type			Material Handling (Roading)		Material Handling		Rock (V-Edge)****		
Edge Type			Bolt-On Cutting Edges	FMT	Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	Teeth and Segments	
	Capacity – Rated	m^3	4.20	4.20	4.40	4.40	3.40	3.40	—
	Capacity – Rated at 110% Fill Factor	m^3	4.62	4.62	4.84	4.84	3.74	3.74	—
	Width	mm	2995	3000	3220	3271	3252	3252	—
16†	Dump Clearance at Maximum Lift and 45° Discharge	mm	2969	3020	2921	2758	3124	3026	559
17†	Reach at Maximum Lift and 45° Discharge	mm	1406	1393	1274	1401	1419	1541	–25
	Reach at Level Lift Arm and Bucket Level	mm	2854	2811	2814	3018	2783	2939	405
A†	Digging Depth	mm	124	94	124	124	68	68	–25
12†	Shipping Length (with Bucket)	mm	8801	8733	8761	8986	8715	8876	829
B†	Overall Height with Bucket at Maximum Lift	mm	5939	5939	5931	5931	5845	5845	559
	Loader Clearance Circle Radius with Bucket at Carry Position	mm	7421	7401	7514	7600	7529	7572	242/235
	Static Tipping Load, Straight (With Tire Deflection)*	kg	16 858	16 957	16 501	16 318	17 075	17 006	–62/58
	Static Tipping Load, Straight (No Tire Deflection)*	kg	18 022	18 129	17 657	17 471	18 262	18 191	–145/–7
	Static Tipping Load, Articulated (With Tire Deflection)*	kg	14 889	14 979	14 527	14 343	15 033	14 963	–220/–111
	Static Tipping Load, Articulated (No Tire Deflection)*	kg	16 034	16 132	15 668	15 481	16 204	16 133	–288/–163
	Breakout Force***	kN	168	173	171	170	186	185	–15
	Operating Weight*	kg	22 848	22 833	23 270	23 408	24 007	24 059	1612

*Static tipping loads and operating weights are 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 and sound suppression.

**Maximum values (Rock/Other Buckets).

***Measure 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C. Specifications and ratings confirm to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

****Rock bucket specifications are given on Michelin 26.5R25XLDD2 L5 radial tires.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

FMT = Flush Mounted Teeth

Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

966M Operating Specifications with Buckets – Aggregate Handler

Machine		Aggregate Handler***					
Pin/Quick Coupler		Pin-On				Fusion QC	Universal QC
Bucket Type		Material Handling			Light Material	Material Handling	Material Handling
Edge Type		Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
	Capacity – Rated	m^3	4.40	4.60	4.80	7.10	4.40	4.40
	Capacity – Rated at 110% Fill Factor	m^3	4.84	5.06	5.28	7.81	4.84	4.62
	Width	mm	3220	3220	3220	3447	3220	3220
16†	Dump Clearance at Maximum Lift and 45° Discharge	mm	2921	2893	2865	2625	2872	2841
17†	Reach at Maximum Lift and 45° Discharge	mm	1274	1302	1330	1548	1323	1622
	Reach at Level Lift Arm and Bucket Level	mm	2814	2854	2894	3217	2884	3104
A†	Digging Depth	mm	124	124	124	140	124	60
12†	Shipping Length (with Bucket)	mm	8809	8849	8889	9224	8879	9046
B†	Overall Height with Bucket at Maximum Lift	mm	5931	5982	6023	6071	5973	6183
	Loader Clearance Circle Radius with Bucket at Carry Position	mm	7514	7524	7534	7728	7529	7571
	Static Tipping Load, Straight (With Tire Deflection)*	kg	18 077	18 013	17 938	17 508	17 397	16 505
	Static Tipping Load, Straight (No Tire Deflection)*	kg	19 386	19 329	19 260	18 881	18 687	17 789
	Static Tipping Load, Articulated (With Tire Deflection)*	kg	15 861	15 799	15 726	15 301	15 209	14 390
	Static Tipping Load, Articulated (No Tire Deflection)*	kg	17 158	17 103	17 036	16 663	16 492	15 670
	Breakout Force**	kN	171	166	161	129	162	138
	Operating Weight*	kg	23 965	24 000	24 046	24 223	24 427	24 592

*Static tipping loads and operating weights are based on a machine configuration with Michelin 26.5R25 XHA2 L3 radial tires, full fluids, operator, aggregate counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

**Measure 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C. Specifications and ratings confirm to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

***Aggregate Handler Configurations are NOT compatible with L5 Tires, Teeth, Teeth and Segments, and Spade Nose Rock Bucket.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

QC = Quick Coupler

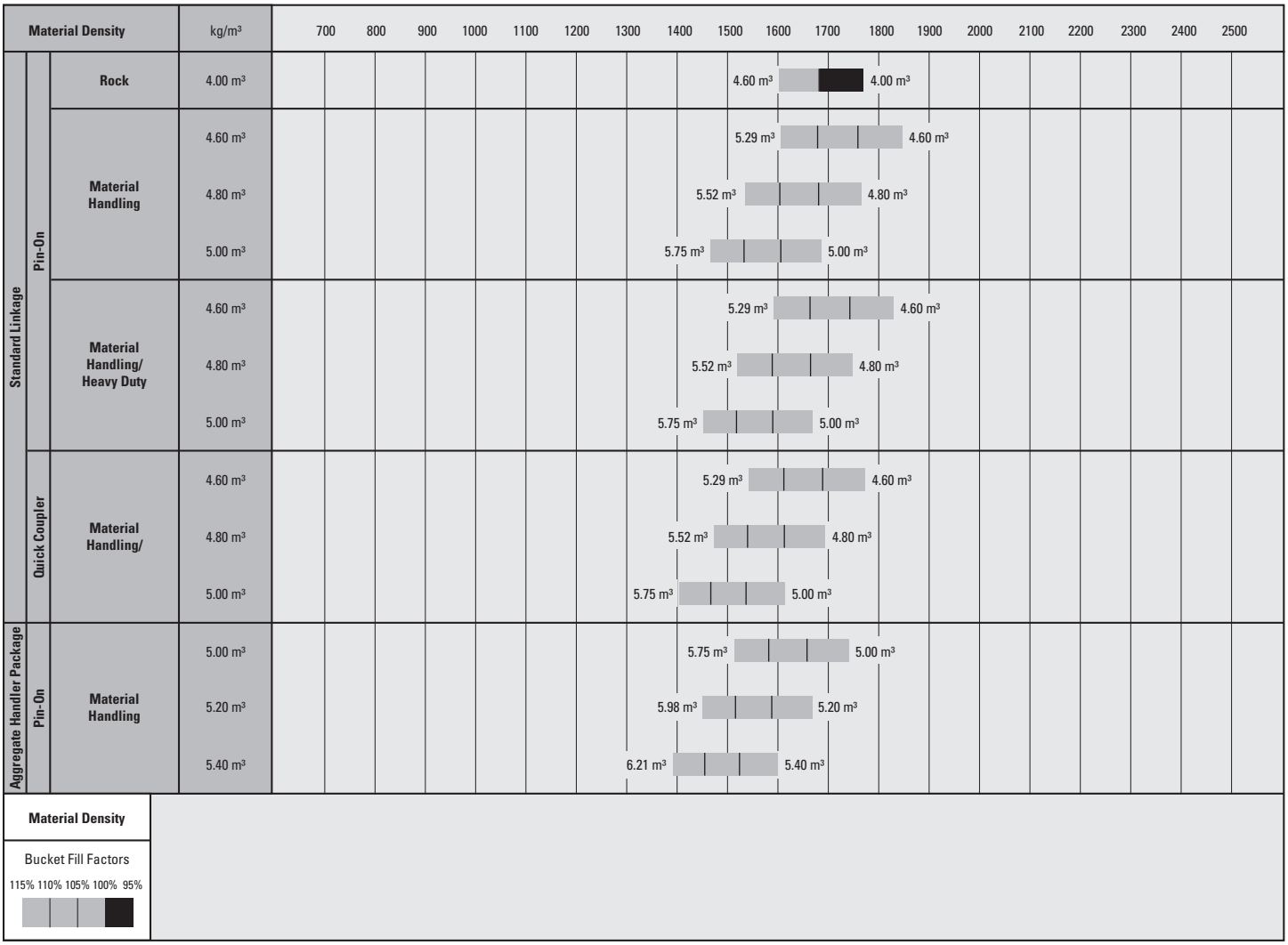
Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

972M Bucket Fill Factors and Selection Chart

The bucket size must be chosen based on the density of the material and on the expected fill factor. The Cat Performance Series Buckets with longer floor, larger bucket opening, increased repository angle, rounded side boards and integrated spill guard, demonstrate fill factors significantly higher than previous generation or non Cat buckets. The actual volume handled by the machine is thus often larger than the rated capacity.

Loose Material		Fill Factor (%)*	Material Density
Earth/Clay		115	1500-1700 kg/m³
Sand and Gravel		115	1500-1700 kg/m³
Aggregate:	25-76 mm	110	1600-1700 kg/m³
	19 mm and smaller	105	1800 kg/m³
Rock:	76 mm and larger	100	1600 kg/m³

*As a % of ISO rated capacity.
Note: Fill Factors achieved will also depend on whether the product is washed or not washed.



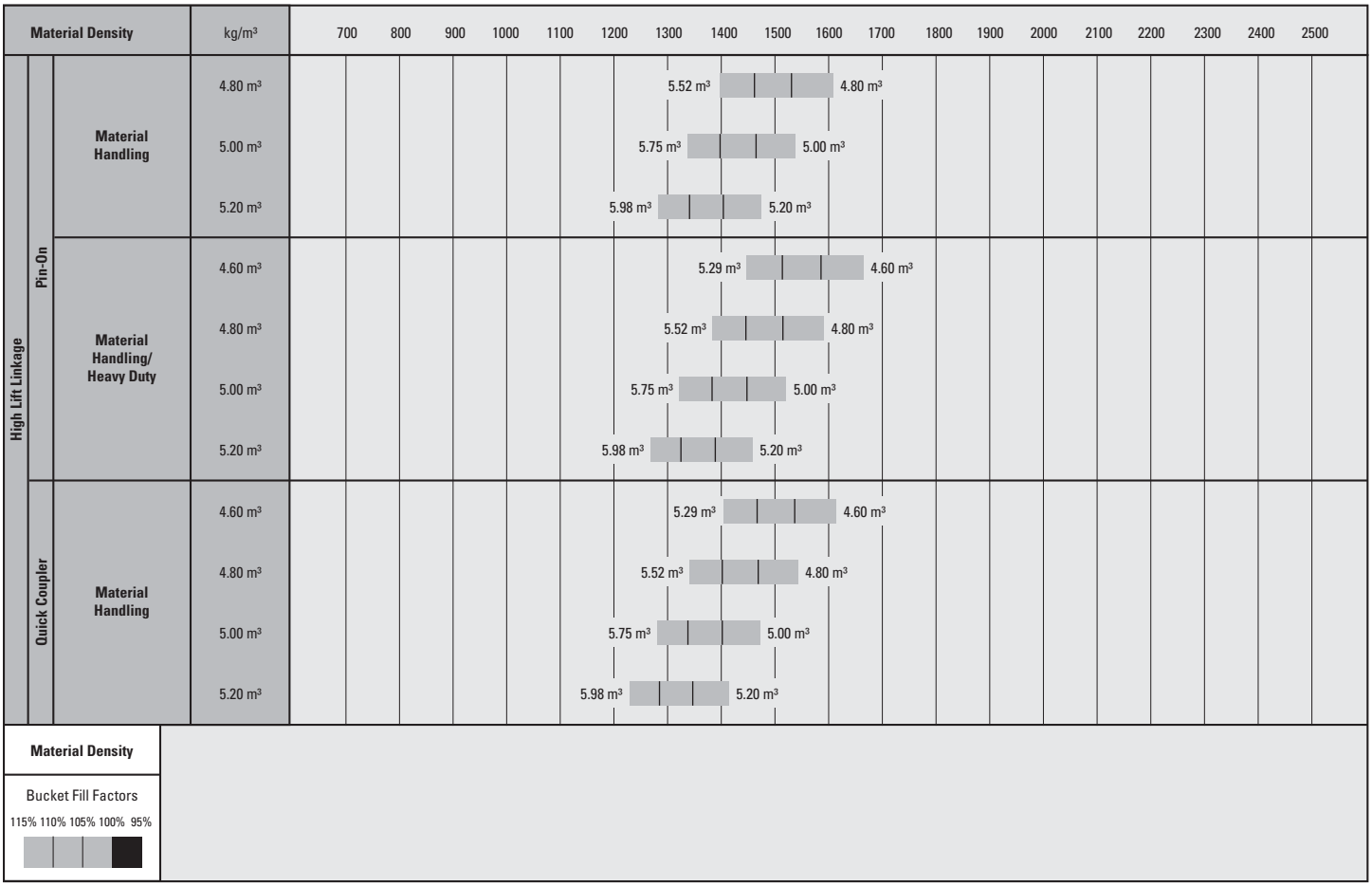
Note: All buckets are showing Bolt-On Edges.

972M Bucket Fill Factors and Selection Chart

The bucket size must be chosen based on the density of the material and on the expected fill factor. The Cat Performance Series Buckets with longer floor, larger bucket opening, increased repository angle, rounded side boards and integrated spill guard, demonstrate fill factors significantly higher than previous generation or non Cat buckets. The actual volume handled by the machine is thus often larger than the rated capacity.

Loose Material		Fill Factor (%)*	Material Density
Earth/Clay		115	1500-1700 kg/m³
Sand and Gravel		115	1500-1700 kg/m³
Aggregate:	25-76 mm	110	1600-1700 kg/m³
	19 mm and smaller	105	1800 kg/m³
Rock:	76 mm and larger	100	1600 kg/m³

*As a % of ISO rated capacity.
Note: Fill Factors achieved will also depend on whether the product is washed or not washed.



Note: All buckets are showing Bolt-On Edges.

972M Operating Specifications with Buckets

Machine			Standard Linkage						High Lift Linkage Change**
Pin/Quick Coupler			Pin-On				Fusion QC	Universal QC	
Bucket Type			Material Handling				Material Handling	Material Handling	
Edge Type			Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	Bolt-On Cutting Edges	
	Capacity – Rated	m³	4.80	4.80	5.00	5.00	4.60	4.60	—
	Capacity – Rated at 110% Fill Factor	m³	5.28	5.28	5.50	5.50	5.06	5.06	—
	Width	mm	3220	3271	3220	3271	3220	3220	—
16†	Dump Clearance at Maximum Lift and 45° Discharge	mm	3099	2936	3070	2908	3069	2954	336
17†	Reach at Maximum Lift and 45° Discharge	mm	1272	1399	1300	1427	1301	1507	23
	Reach at Level Lift Arm and Bucket Level	mm	3009	3214	3049	3254	3050	3277	274
A†	Digging Depth	mm	103	103	103	103	103	39	–5
12†	Shipping Length (with Bucket)	mm	9310	9534	9350	9574	9351	9529	338
B†	Overall Height with Bucket at Maximum Lift	mm	6193	6193	6223	6223	6199	6439	336
	Loader Clearance Circle Radius with Bucket at Carry Position	mm	7607	7696	7618	7707	7616	7666	169
	Static Tipping Load, Straight (With Tire Deflection)*	kg	18 380	18 196	18 306	18 121	17 763	16 413	–1598
	Static Tipping Load, Straight (No Tire Deflection)*	kg	19 613	19 425	19 545	19 357	18 970	17 566	–1763
	Static Tipping Load, Articulated (With Tire Deflection)*	kg	16 050	15 864	15 977	15 790	15 463	14 230	–1429
	Static Tipping Load, Articulated (No Tire Deflection)*	kg	17 288	17 101	17 222	17 034	16 679	15 398	–1608
	Breakout Force***	kN	196	195	191	189	191	160	–7
	Operating Weight*	kg	24 977	25 114	25 026	25 164	25 409	25 690	85

*Static tipping loads and operating weights are 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 and sound suppression.

**Maximum values.

***Measure 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C. Specifications and ratings confirm to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

QC = Quick Coupler

Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

972M Operating Specifications with Buckets

Machine		Standard Linkage					High Lift Linkage Change**
Pin/Quick Coupler		Pin-On					
Bucket Type		Material Handling Heavy Duty				Rock (V-Edge) ****	
Edge Type		Bolt-On Cutting Edges	FMT	Bolt-On Cutting Edges	FMT	Teeth and Segments	
Capacity – Rated	m^3	4.80	4.80	5.00	4.97	4.00	—
Capacity – Rated at 110% Fill Factor	m^3	5.28	5.28	5.50	5.47	4.40	—
Width	mm	3220	3294	3220	3294	3350	—
16† Dump Clearance at Maximum Lift and 45° Discharge	mm	3099	2933	3070	2911	3160	336
17† Reach at Maximum Lift and 45° Discharge	mm	1272	1476	1300	1497	1547	23
Reach at Level Lift Arm and Bucket Level	mm	3009	3271	3049	3301	3171	274
A† Digging Depth	mm	103	78	103	78	50	–5
12† Shipping Length (with Bucket)	mm	9310	9551	9350	9581	9472	338
B† Overall Height with Bucket at Maximum Lift	mm	6193	6234	6234	6265	6057	335
Loader Clearance Circle Radius with Bucket at Carry Position	mm	7607	7703	7618	7711	7726	170
Static Tipping Load, Straight (With Tire Deflection)*	kg	18 233	17 921	18 151	17 857	18 317	–1583
Static Tipping Load, Straight (No Tire Deflection)*	kg	19 464	19 161	19 388	19 101	19 562	–1747
Static Tipping Load, Articulated (With Tire Deflection)*	kg	15 901	15 570	15 820	15 507	15 920	–1416
Static Tipping Load, Articulated (No Tire Deflection)*	kg	17 139	16 820	17 065	16 761	17 177	–1593
Breakout Force***	kN	196	200	190	195	193	–7
Operating Weight*	kg	25 121	25 506	25 176	25 550	26 189	85

*Static tipping loads and operating weights are 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 and sound suppression.

**Maximum values.

***Measure 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C. Specifications and ratings confirm to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

****Rock bucket specifications are given on Michelin 26.5R25 XLDD2 L5 radial tires.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

FMT = Flush Mounted Teeth

Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

972M Operating Specifications with Buckets – Aggregate Handler

Machine		Aggregate Handler***		
Pin/Quick Coupler		Pin-On		
Bucket Type		Material Handling		
Edge Type		Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
Capacity – Rated	m^3	5.00	5.20	5.40
Capacity – Rated at 110% Fill Factor	m^3	5.50	5.70	5.90
Width	mm	3230	3230	3230
16† Dump Clearance at Maximum Lift and 45° Discharge	mm	3092	3049	3021
17† Reach at Maximum Lift and 45° Discharge	mm	1272	1314	1343
Reach at Level Lift Arm and Bucket Level	mm	3014	3074	3114
A† Digging Depth	mm	108	108	108
12† Shipping Length (with Bucket)	mm	9005	9065	9105
B† Overall Height with Bucket at Maximum Lift	mm	6234	6265	6306
Loader Clearance Circle Radius with Bucket at Carry Position	mm	7615	7631	7642
Static Tipping Load, Straight (With Tire Deflection)*	kg	19 368	19 309	19 227
Static Tipping Load, Straight (No Tire Deflection)*	kg	20 712	20 659	20 583
Static Tipping Load, Articulated (With Tire Deflection)*	kg	16 857	16 799	16 718
Static Tipping Load, Articulated (No Tire Deflection)*	kg	18 214	18 161	18 087
Breakout Force**	kN	191	186	181
Operating Weight*	kg	25 715	25 755	25 809

*Static tipping loads and operating weights are 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 and sound suppression.

**Measure 102 mm behind tip of cutting edge with bucket hinge pin as pivot in accordance with SAE J732C. Specifications and ratings confirm to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

***Aggregate Handler Configurations are NOT compatible with L5 Tires, Teeth, Teeth and Segments, and Spade Nose Rock Bucket.

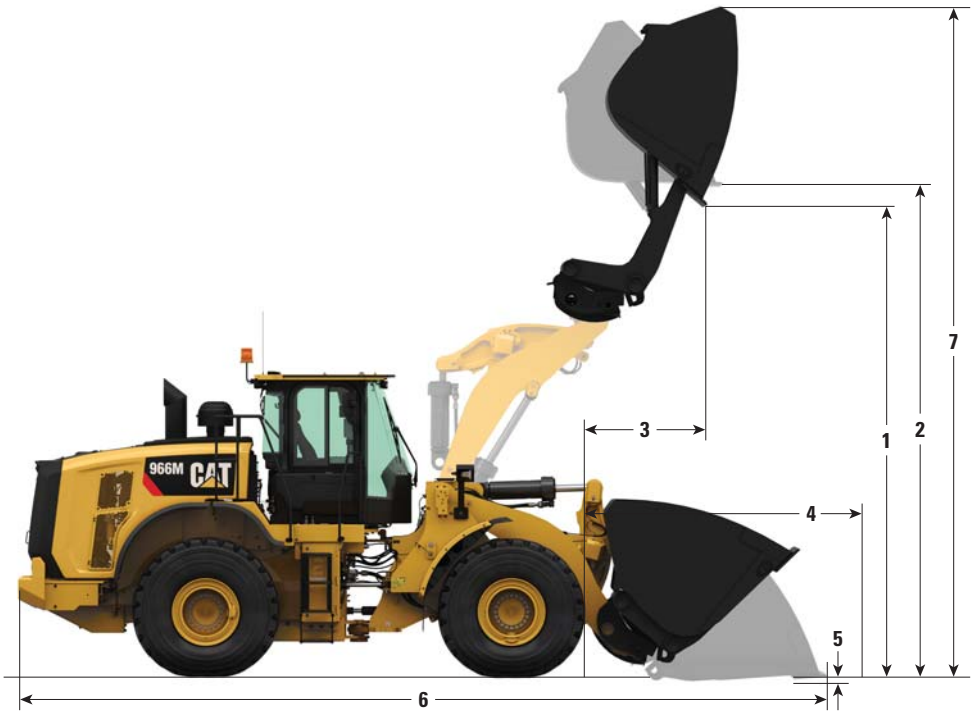
(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

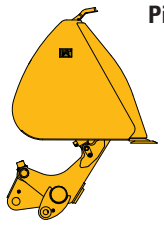
(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

Additional buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

966M Operating Specifications with High Dump Buckets




Pin-On


Fusion QC


Universal QC

Machine		966M Aggregate Handler		
Interface		Pin-On	Fusion QC	Universal QC
Edge Type		Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
Capacity – Rated	m^3	11.10	11.10	11.10
Capacity – Rated at 110% Fill Factor	m^3	12.20	12.20	12.20
Width	mm	3656	3656	3656
Nominal Material Density – 110% Fill Factor	kg/m^3	630	610	570
1 Dump Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm	4680	4698	4861
2 Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to Level	mm	5348	5366	5529
3 Reach at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm	1885	1894	1982
4 Reach at Level Lift Arm and Bucket Level	mm	3828	3848	4033
5 Digging Depth	mm	94	94	94
6 Overall Length	mm	9823	9843	10 028
7 Overall Height with Bucket at Maximum Height and Maximum Rack	mm	7483	7500	7663
Clearance Circle (Radius) with Bucket at Carry Position	mm	8023	7994	8049
Static Tipping Load, Straight (With Tire Deflection)*	kg	15 420	14 969	14 157
Static Tipping Load, Straight (No Tire Deflection)*	kg	16 762	16 300	15 441
Static Tipping Load, Articulated (With Tire Deflection)*	kg	13 288	12 845	12 106
Static Tipping Load, Articulated (No Tire Deflection)*	kg	14 645	14 191	13 407
Breakout Force	kN	93	92	82
Operating Weight*	kg	25 442	25 926	26 085

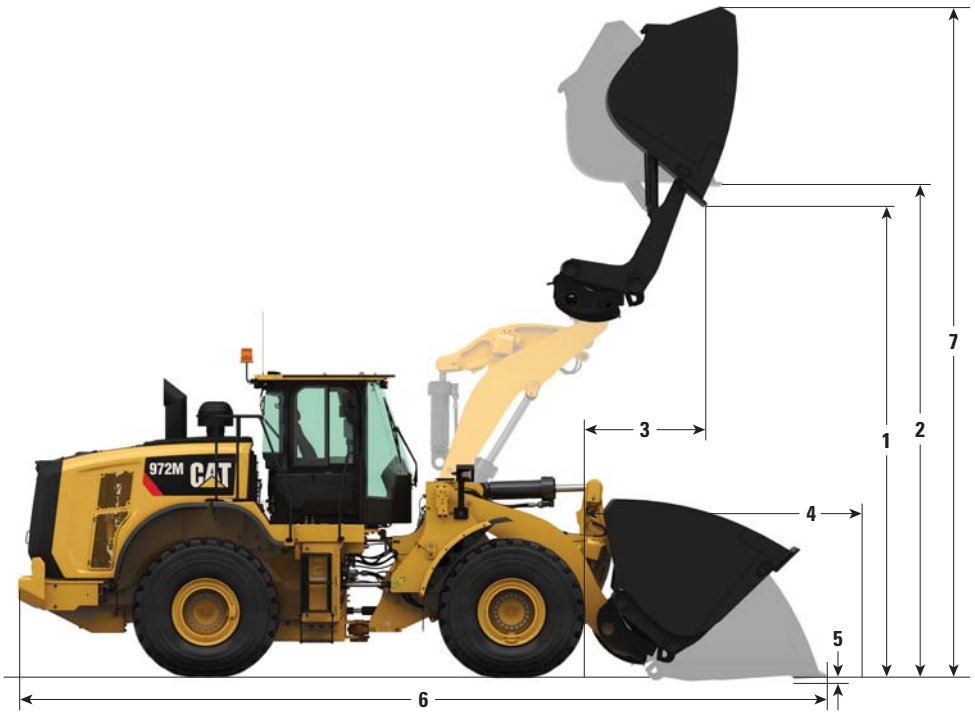
*Static tipping loads and operating weights are based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, auxiliary counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

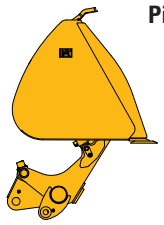
(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

Additional high dump buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

972M Operating Specifications with High Dump Buckets




Pin-On


Fusion QC


Universal QC

Machine		972M Aggregate Handler		
Interface		Pin-On	Fusion QC	Universal QC
Edge Type		Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
Capacity – Rated	m³	11.10	11.10	11.10
Capacity – Rated at 110% Fill Factor	m³	12.20	12.20	12.20
Width	mm	3656	3656	3656
Nominal Material Density – 110% Fill Factor	kg/m³	670	650	610
1 Dump Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm	4795	4811	4965
2 Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to Level	mm	5477	5494	5647
3 Reach at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm	1936	1947	2051
4 Reach at Level Lift Arm and Bucket Level	mm	3958	3978	4163
5 Digging Depth	mm	73	73	73
6 Overall Length	mm	9945	9965	10 150
7 Overall Height with Bucket at Maximum Height and Maximum Rack	mm	7614	7631	7784
Clearance Circle (Radius) with Bucket at Carry Position	mm	8112	8083	8141
Static Tipping Load, Straight (With Tire Deflection)*	kg	16 513	16 065	15 214
Static Tipping Load, Straight (No Tire Deflection)*	kg	17 877	17 415	16 513
Static Tipping Load, Articulated (With Tire Deflection)*	kg	14 153	13 710	12 938
Static Tipping Load, Articulated (No Tire Deflection)*	kg	15 544	15 092	14 273
Breakout Force	kN	114	113	102
Operating Weight*	kg	27 026	27 510	27 669

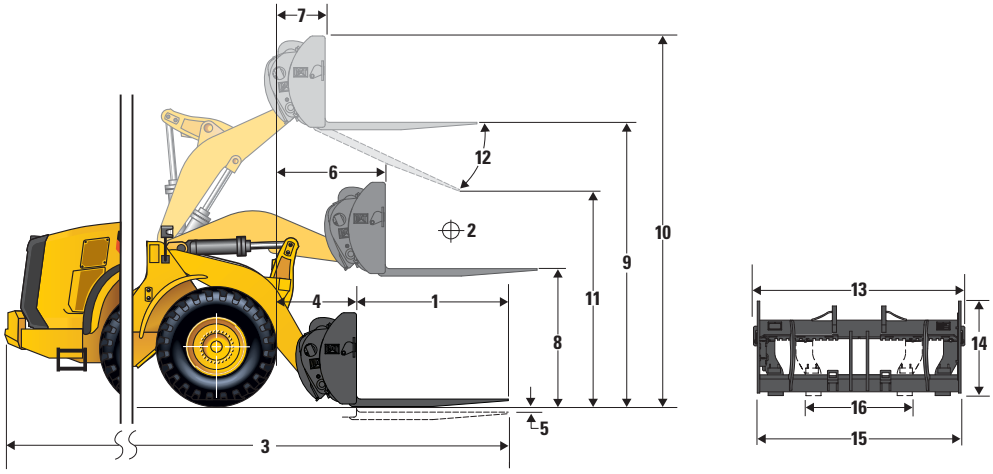
*Static tipping loads and operating weights are based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, auxiliary counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

Additional high dump buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

966M/972M Operating Specifications with Pallet Fork



Machine		966M	972M
		Standard Counterweight	Standard Counterweight
Interface		**Fusion QC**	**Fusion QC**
1 Tine Length	mm	1829	1829
2 Load Center	mm	915	915
3 Maximum Overall Length	mm	9531	10 012
4 Reach with Forks at Ground Level	mm	1106	1267
5 Ground to Top of Tine at Minimum Height and Fork Level	mm	–11	10
6 Reach with Arms Horizontal and Forks Level	mm	1704	1834
7 Reach with Fork at Maximum Height	mm	836	788
8 Ground to Top of Tine with Arms Horizontal and Fork Level	mm	1955	1956
9 Ground to Top of Tine at Maximum Height and Fork Level	mm	4039	4262
10 Overall Height of Fork at Full Lift (Top of Carriage to Ground)	mm	5079	5302
11 Clearance at Full Lift and Maximum Dump	mm	2292	2516
12 Maximum Discharge Angle from Horizontal	degrees	51	51
13 Overall Carriage Width	mm	2528	2528
14 Overall Carriage Height	mm	1130	1130
15 Outside Tine Width (Maximum Spread)	mm	2178	2178
16 Outside Tine Width (Minimum Spread)	mm	576	576
Tine Width (Single Tine)	mm	180.0	180.0
Tine Thickness	mm	90.0	90.0
Tine Capacity	kg	14 800	14 800
Static Tipping Load – Straight (Forks Level)*	kg	11 345	13 012
Static Tipping Load – Articulated (Forks Level)*	kg	10 013	11 401
Rated Load (SAE J1197 – 50% FTSTL)**	kg	5007	5701
Rated Load (CEN EN 474-3 Rough Terrain – 60% FTSTL)**	kg	6008	6841
Rated Load (CEN EN 474-3 Firm and Level Ground – 80% FTSTL)**	kg	7807	9121
Operating Weight*	kg	22 683	24 378

*Static tipping loads and operating weights are based on L3 Michelin XHA tires, air conditioning, ride control, power train guard, full fluids, fuel tank, coolant, lubricants, and operator.

**The rated operating load for a loader equipped with a pallet fork is determined by: SAE J1197: 50% of full turn static tipping load or hydraulic limit. CEN EN 474-3: 60% of full turn static tipping load on rough terrain or hydraulic limit. CEN EN 474-3: 80% of full turn static tipping load on firm and level ground or hydraulic limit. SAE – Society of Automotive Engineers. CEN – European Committee for Standardization. Refer to the Forks Product Bulletins for capacity load charts.

Additional forks are available and offerings vary by region. Consult your local Cat dealer for further details.

966M/972M Standard Equipment

Standard Equipment

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

OPERATOR ENVIRONMENT

- Cab, pressurized and sound suppressed (ROPS/FOPS)
- Viscous mounts
- Multi-function 18 cm color touchscreen display for rear vision camera, clock and machine parameters
- EH controls, SAL (single axis lever) lift and tilt function
- Steering, EH joystick, speed sensing with force feedback
- Radio ready (entertainment) includes antenna, speakers and converter (12V, 10-amp)
- Air conditioner, heater, and defroster (auto temp and fan)
- EH parking brake
- Beverage holders (2) with storage compartment for cell phone/MP3 player
- Bucket/work tool function lockout
- Coat hook (2)
- Cab air filter
- Ergonomic cab access ladders and handrails
- Horn, electric
- Light, two dome (cab)
- Mirrors, rearview external with integrated spot mirrors
- Post mounted membrane 16 switch keypad
- 2 receptacles, 12V
- Seat, Cat Comfort (cloth) air suspension
- Seat belt, 51 mm retractable, with indicator
- Sun visor, front
- Wet-arm wipers/washers front and rear, intermittent front wiper
- Window, sliding (left and right sides)
- Cab tie-off

COMPUTERIZED MONITORING SYSTEM

- With following gauges:
  - Speedometer/tachometer
  - Digital gear range indicator
  - Diesel Exhaust Fluid (DEF) level
  - Temperature: engine coolant, hydraulic oil, transmission oil
  - Fuel level
- With following warning indicators:
  - Regeneration
  - Temperature: axle oil, engine intake manifold
  - Pressure: engine oil, fuel pressure hi/low, primary steering oil, service brake oil
  - Battery voltage hi/low
  - Engine air filter restriction
  - Hydraulic oil filter restriction
  - Hydraulic oil low
  - Parking brake
  - DEF low level
  - Transmission filter bypass

ELECTRICAL AND LIGHTING

- Batteries (2), maintenance free 1,400 CCA
- Ignition key; start/stop switch
- Starter, electric, heavy duty
- Starting and charging system (24V)
- Lighting system:
  - Four halogen work lights (cab mounted)
  - Two halogen roading lights (with signals)
  - Two halogen rear vision lights (hood mounted)
  - Two rear LED position/stop/turn
- Alarm, back-up
- Alternator, 145-amp brushed
- Main disconnect switch
- Emergency engine shutdown switch
- Receptacle start (cables not included)
- Secondary steering
- Speed limiter, adjustable

CAT CONNECT TECHNOLOGIES

- Link technologies: Product Link
- Detect technologies: rear vision camera

POWER TRAIN

- Engine, Cat C9.3 ACERT meets Stage IV emission standards
- Cat Clean Emissions Module (CEM) with Diesel Exhaust Fluid (DEF) tank and pump
- Fuel priming pump (electric)
- Fuel/water separator
- Precleaner, engine air intake
- Economy Mode (selectable)
- Transmission, automatic planetary power shift (4F/4R)
- Torque converter, locking clutch with free wheel stator
- Switch, transmission neutralizer lockout
- Axles, manually actuated differential lock front axle, open differential rear axle
- Axles, ecology drains
- Brakes, full hydraulic enclosed wet-disc with Integrated Braking System (IBS)
- Brake wear indicators
- Parking brake, disc and caliper
- Fan, radiator, on demand

LINKAGE

- Linkage, Z-bar, cast crosstube/tilt lever
- Kickout, lift and tilt, automatic

HYDRAULICS

- Hydraulic system, load sensing
- Steering, load sensing
- Ride control, 2V
- Remote diagnostic pressure taps
- Hoses, Cat XT™
- Hydraulic oil cooler (swing out)
- Oil sampling valves

FLUIDS

- Premixed extended life coolant with freeze protection to –34° C

OTHER STANDARD EQUIPMENT

- Hood, non-metallic power tilting
- Service centers (electrical and hydraulic)
- Platform, window washing
- Auto idle shutdown
- Fenders, non-metallic front with mud-flap/rear with extension
- Ecology drains for engine, transmission, and hydraulics
- Ether aid ready
- Grill, airborne debris
- Filters: fuel, engine air, engine oil, hydraulic oil, transmission
- Fuel cooler
- Grease zerks
- Hitch, drawbar with pin
- Precleaner rain cap
- Sight gauges: engine coolant, hydraulic oil, and transmission oil level
- Toolbox
- Vandalism protection caplocks

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

OPERATOR ENVIRONMENT

- Door, remote opening system
- Cover, HVAC metallic
- EH controls, SAL 3rd function:
  - Additional roller switch for 4th function
- EH controls, joystick lift and tilt:
  - Additional integrated roller switches for 3rd and 4th functions
- Filter, carbon fresh air
- Mirrors, heated rearview external with integrated spot mirrors
- Precleaner, HVAC
- Precleaner, HVAC (RESPA)
- Radio, AM/FM/CD/USB/MP3 Bluetooth®
- Seat covers, removable
- Seat, heated air suspension
- Seat, deluxe with leather inserts and headrest, heated and ventilated, air-suspended, adjustable lumbar support
- Seat belt, 4 point harness, with indicator
- Steering, EH wheel with directional FNR shifter and gear selector:
  - Additional FNR with implement controls
- Roof, metallic
- Sun visor, rear
- Windows, rubber mounted
- Windows, with front guard
- Windows, with heavy duty front guard
- Windows, with full guards front, rear and sides
- Cat seat cover, removable

ELECTRICAL AND LIGHTING

- Four additional halogen cab mounted work lights or;
- Two additional auxiliary front HI LED and two additional auxiliary rear LED cab mounted work lights, two LED work lights in the radiator grill, LED front turn signals, replacement of the standard four halogen cab mounted work lights with four LED work lights, LED roading lights
- Speed limiter – 20 km/h
- External seat belt indicator light
- Reversing strobes

STARTERS, BATTERIES, AND ALTERNATORS

- Cold start – 240V

CAT CONNECT TECHNOLOGIES

- Link technologies:
  - VIMS™
- Payload technologies:
  - Cat Production Measurement 2.0 (CPM)
  - Printer, Cat Production Measurement
  - Aggregate Autodig
- Advanced Productivity subscription
- Detect technologies:
  - Cat Rear Object Detection
- Machine Security System

POWER TRAIN

- Axles:
  - Automatic front/rear differential locks
  - Axle oil cooler
  - Extreme temperature seals
  - Seal guards
- Fan, VPF (variable pitch fan), automatic and manual control
- Radiator, high debris with wider fin spacing

LINKAGE

- High lift
- Forestry (966M only)
- Extended capacity (972M only)
- Quick coupler ready

WORK TOOLS

- Performance Series buckets
- Fusion quick coupler
- Forks, pallet
- Forks, logging

HYDRAULICS

- 3rd function with Ride Control
- 4th function with Ride Control

FLUIDS

- Premixed extended life coolant with freeze protection to –50° C
- Bio-degradable oil, Cat HYDO™

OTHER OPTIONAL EQUIPMENT

- Cat Autolube System
- Fenders, roading
- Guard, power train
- Guard, rear radiator grill
- Oil change, high speed engine
- Precleaner, turbine
- Precleaner, trash
- Wheel chocks

OTHER OPTIONAL CONFIGURATIONS

- Aggregate Handler
- Industrial and Waste Handler
- Forestry (966M only)
- Steel Mill (972M only)

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com**

AEHQ7961-01
Replaces AEHQ7961
(Europe)

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.