



# 972M

## Wheel Loader

# Technical Specifications

### Engine

Engine Model	Cat® C9.3
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 either EU Stage V or EU Stage IV\* emission standards.  
\*Stage IV engines comply with the transition provisions of the EU non-road emission regulation
- 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

Bucket Capacities	3.20-9.94 m <sup>3</sup>
-------------------	--------------------------

### Weight

Operating Weight	24 900 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 m<sup>3</sup> general purpose bucket with bolt-on cutting edges.

### Operating Specifications

#### 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

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.



# 972M Wheel Loader Specifications

## 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 3 <sup>rd</sup> /4 <sup>th</sup> Function	240 L/min
Maximum Pressure – Optional 3 <sup>rd</sup> /4 <sup>th</sup> Function	21 780 kPa
Hydraulic Cycle Time with Rated Payload	
Raise from Carry Position	6.1 Sec.
Dump, at Maximum Raise	1.5 Sec.
Lower, Empty, Float Down	3.1 Sec.
Total	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.

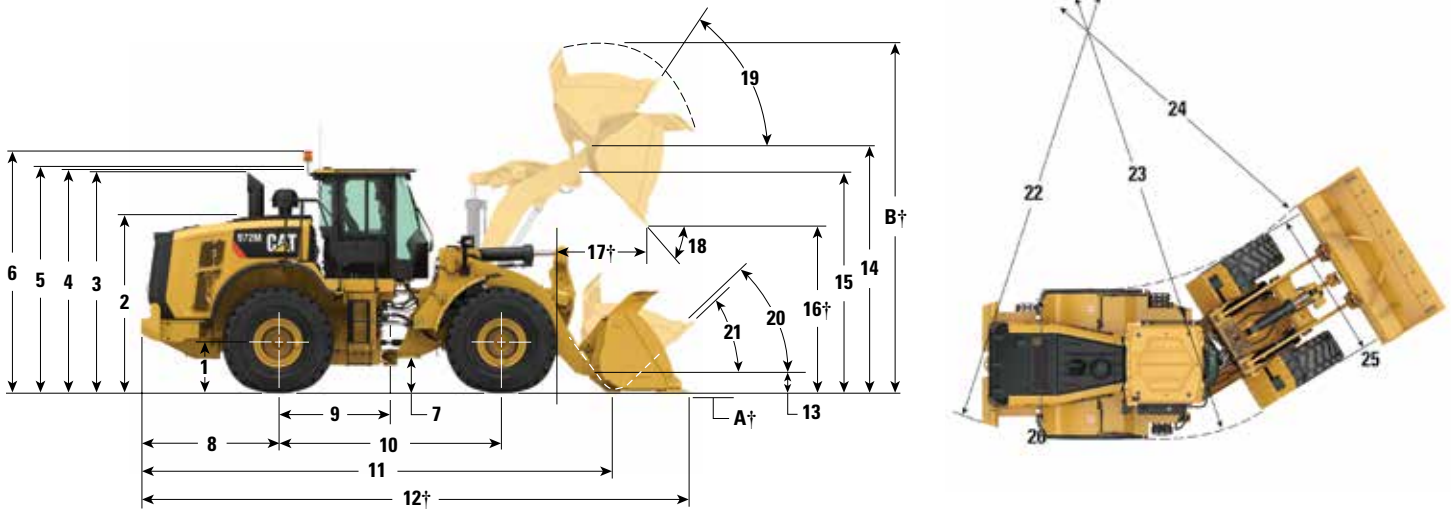
## Air Conditioning System

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<sub>2</sub> equivalent 2.288 metric tonne.

# 972M Wheel Loader Specifications

## Dimensions

All dimensions are approximate.



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

\*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.

# 972M Wheel Loader Specifications

## 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
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
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:

– Michelin 26.5R25 XHA2 L3 radial tires.

# 972M Wheel Loader Specifications

## 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		Material Density	Fill Factor (%)*
Earth/Clay		1500-1700 kg/m <sup>3</sup>	115
Sand and Gravel		1500-1700 kg/m <sup>3</sup>	115
Aggregate:	25-76 mm	1600-1700 kg/m <sup>3</sup>	110
	19 mm and smaller	1800 kg/m <sup>3</sup>	105
Rock:	76 mm and larger	1600 kg/m <sup>3</sup>	100

\*As a % of ISO 7546 rated capacity.

**Note:** Fill Factors achieved will also depend on whether the product is washed or not washed.

Material Density		kg/m <sup>3</sup>	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500				
Standard Linkage	Pin-On	Rock										4.60 m <sup>3</sup>		4.00 m <sup>3</sup>											
		Material Handling	4.60 m <sup>3</sup>										5.29 m <sup>3</sup>		4.60 m <sup>3</sup>										
			4.80 m <sup>3</sup>											5.52 m <sup>3</sup>		4.80 m <sup>3</sup>									
	Material Handling/ Heavy Duty	5.00 m <sup>3</sup>											5.75 m <sup>3</sup>		5.00 m <sup>3</sup>										
		4.60 m <sup>3</sup>												5.29 m <sup>3</sup>		4.60 m <sup>3</sup>									
		4.80 m <sup>3</sup>												5.52 m <sup>3</sup>		4.80 m <sup>3</sup>									
	Quick Coupler	5.00 m <sup>3</sup>												5.75 m <sup>3</sup>		5.00 m <sup>3</sup>									
		4.60 m <sup>3</sup>												5.29 m <sup>3</sup>		4.60 m <sup>3</sup>									
		4.80 m <sup>3</sup>												5.52 m <sup>3</sup>		4.80 m <sup>3</sup>									
	Aggregate Handler Package	Pin-On	5.00 m <sup>3</sup>											5.75 m <sup>3</sup>		5.00 m <sup>3</sup>									
			5.20 m <sup>3</sup>												5.98 m <sup>3</sup>		5.20 m <sup>3</sup>								
			5.40 m <sup>3</sup>												6.21 m <sup>3</sup>		5.40 m <sup>3</sup>								
Material Density																									
Bucket Fill Factors																									
115% 110% 105% 100% 95%																									

**Note:** All buckets are showing Bolt-On Edges.

# 972M Wheel Loader Specifications

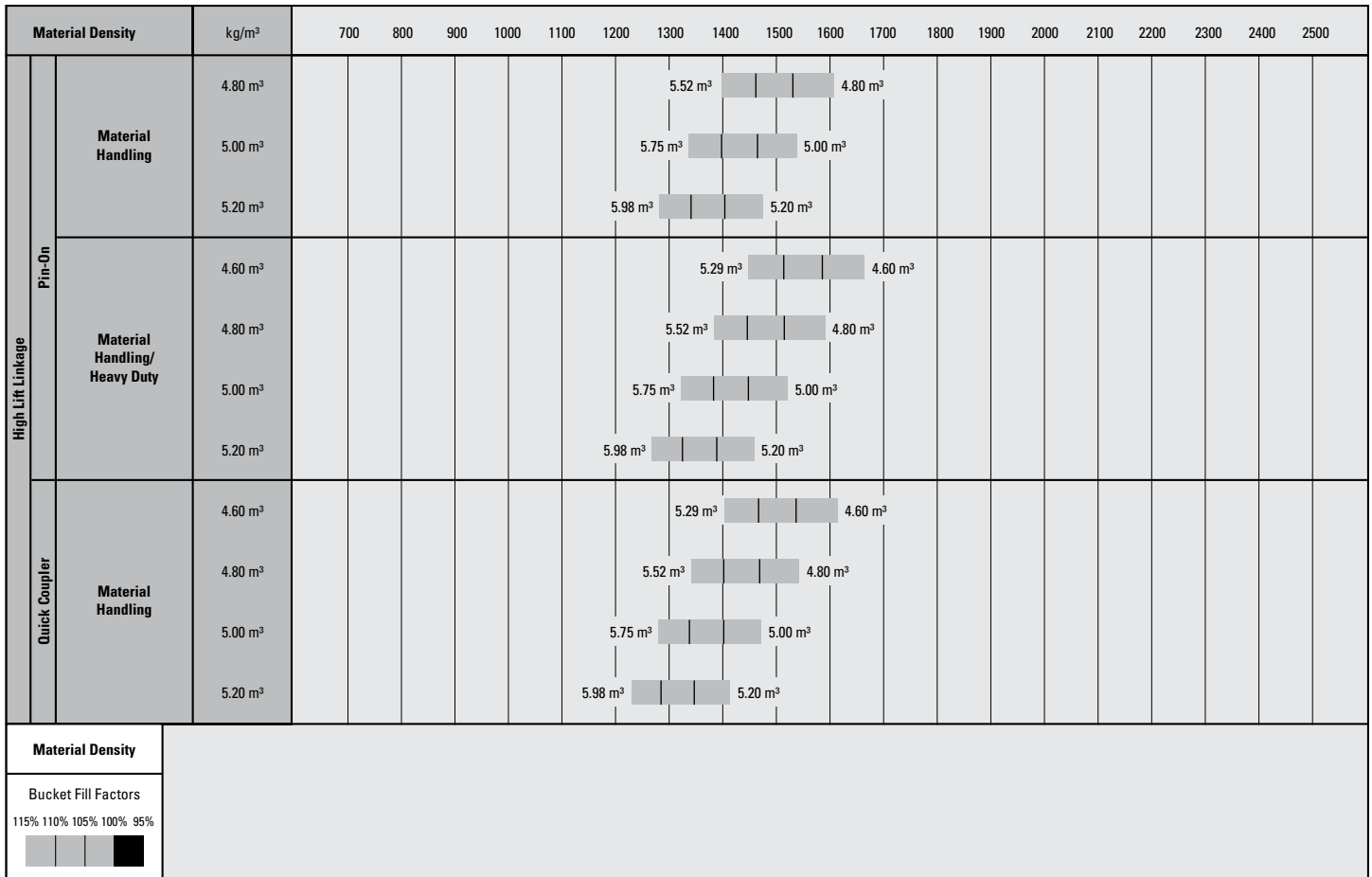
## Bucket Fill Factors and Selection Chart

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		Material Density	Fill Factor (%)*
Earth/Clay		1500-1700 kg/m <sup>3</sup>	115
Sand and Gravel		1500-1700 kg/m <sup>3</sup>	115
Aggregate:	25-76 mm	1600-1700 kg/m <sup>3</sup>	110
	19 mm and smaller	1800 kg/m <sup>3</sup>	105
Rock:	76 mm and larger	1600 kg/m <sup>3</sup>	100

\*As a % of ISO 7546 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 Wheel Loader Specifications

## Operating Specifications with Buckets

Machine	Standard Linkage						High Lift Linkage Change**	
	Pin-On				Fusion™ QC	Universal QC		
Pin/Quick Coupler	Material Handling				Material Handling	Material Handling		
Bucket Type		Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	Teeth and Segments	Bolt-On Cutting Edges	Bolt-On Cutting Edges	
Edge Type								
Capacity – Rated	m <sup>3</sup>	4.80	4.80	5.00	5.00	4.60	4.60	—
Capacity – Rated at 110% Fill Factor	m <sup>3</sup>	5.28	5.28	5.50	5.50	5.06	5.06	—
Width	mm	3220	3271	3220	3271	3220	3220	—
<b>16†</b> Dump Clearance at Maximum Lift and 45° Discharge	mm	3099	2936	3070	2908	3069	2954	336
<b>17†</b> 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
<b>A†</b> Digging Depth	mm	103	103	103	103	103	39	-5
<b>12†</b> Shipping Length (with Bucket)	mm	9310	9534	9350	9574	9351	9529	338
<b>B†</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 Wheel Loader Specifications

## 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 <sup>3</sup>	4.80	4.80	5.00	4.97	4.00	—
Capacity – Rated at 110% Fill Factor	m <sup>3</sup>	5.28	5.28	5.50	5.47	4.40	—
Width	mm	3220	3294	3220	3294	3350	—
<b>16</b> † Dump Clearance at Maximum Lift and 45° Discharge	mm	3099	2933	3070	2911	3160	336
<b>17</b> † 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
<b>A</b> † Digging Depth	mm	103	78	103	78	50	-5
<b>12</b> † Shipping Length (with Bucket)	mm	9310	9551	9350	9581	9472	338
<b>B</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 Wheel Loader Specifications

## 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 <sup>3</sup>	5.00	5.20	5.40
Capacity – Rated at 110% Fill Factor	m <sup>3</sup>	5.50	5.70	5.90
Width	mm	3230	3230	3230
<b>16</b> † Dump Clearance at Maximum Lift and 45° Discharge	mm	3092	3049	3021
<b>17</b> † Reach at Maximum Lift and 45° Discharge	mm	1272	1314	1343
Reach at Level Lift Arm and Bucket Level	mm	3014	3074	3114
<b>A</b> † Digging Depth	mm	108	108	108
<b>12</b> † Shipping Length (with Bucket)	mm	9005	9065	9105
<b>B</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.

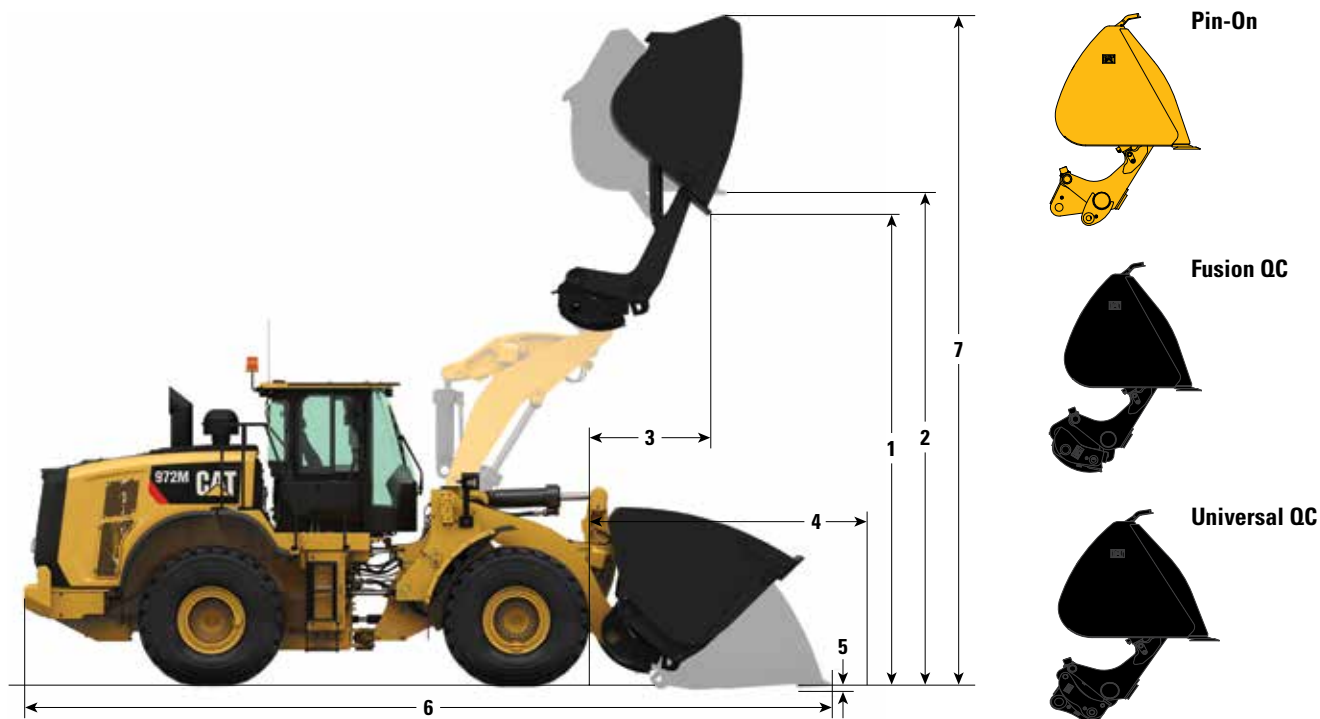
(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

†Illustration shown with Dimension charts.

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

# 972M Wheel Loader Specifications

## Operating Specifications with High Dump Buckets



Machine Interface	Aggregate Handler		
	Pin-On Bolt-On Cutting Edges	Fusion QC Bolt-On Cutting Edges	Universal QC Bolt-On Cutting Edges
<b>Edge Type</b>			
Capacity – Rated	m <sup>3</sup> 11.10	11.10	11.10
Capacity – Rated at 110% Fill Factor	m <sup>3</sup> 12.20	12.20	12.20
Width	mm 3656	3656	3656
Nominal Material Density – 110% Fill Factor	kg/m <sup>3</sup> 670	650	610
<b>1</b> Dump Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm 4795	4811	4965
<b>2</b> Clearance at Maximum Lift, Maximum Rack, Bucket Rolled out to Level	mm 5477	5494	5647
<b>3</b> Reach at Maximum Lift, Maximum Rack, Bucket Rolled out to 45° Discharge	mm 1936	1947	2051
<b>4</b> Reach at Level Lift Arm and Bucket Level	mm 3958	3978	4163
<b>5</b> Digging Depth	mm 73	73	73
<b>6</b> Overall Length	mm 9945	9965	10 150
<b>7</b> 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.

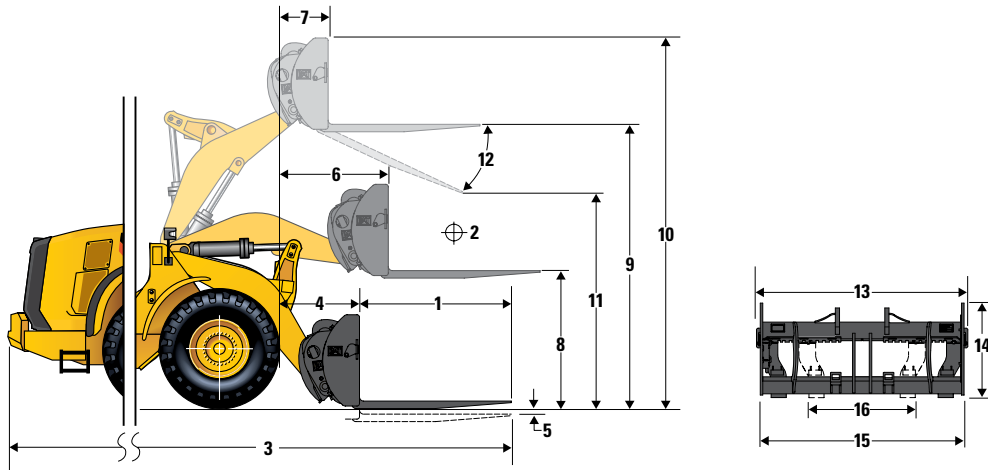
(No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

QC = Quick Coupler

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

# 972M Wheel Loader Specifications

## Operating Specifications with Pallet Fork



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

QC = Quick Coupler

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

# 972M Wheel Loader Standard and Optional Equipment

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>POWER TRAIN</b>			<b>OPERATOR ENVIRONMENT</b>		
Axles, ecology drains	✓		Air conditioner, heater, and defroster (auto temp and fan)	✓	
Axles, manually actuated differential lock front axle, open differential rear axle	✓		Beverage holders (2) with storage compartment for cell phone/MP3 player	✓	
Axles: automatic front/rear differential locks, axle oil cooler, extreme temperature seals, seal guards		✓	Bucket/work tool function lockout	✓	
Brake wear indicators	✓		Cab air filter	✓	
Brakes, full hydraulic enclosed wet-disc with Integrated Braking System (IBS)	✓		Cab, pressurized and sound suppressed (ROPS/FOPS)	✓	
Cat Clean Emissions Module (CEM) with Diesel Exhaust Fluid (DEF) tank and pump	✓		Cab tie-off	✓	
Economy mode (selectable)	✓		Cat seat cover, removable		✓
Engine, Cat C9.3 – meets Stage V or Stage IV emission standards	✓		Coat hook (2)	✓	
Fan, radiator, on demand	✓		Cover, HVAC metallic		✓
Fan, VPF (variable pitch fan), automatic and manual control		✓	Door, remote opening system		✓
Fuel priming pump (electric)	✓		EH controls, SAL (single axis lever) lift and tilt function	✓	
Fuel/water separator	✓		EH controls, joystick lift and tilt: – Additional integrated roller switches for 3 <sup>rd</sup> and 4 <sup>th</sup> functions		✓
Parking brake, disc and caliper	✓		EH controls, SAL 3 <sup>rd</sup> function: – Additional roller switch for 4 <sup>th</sup> function		✓
Precleaner, engine air intake	✓		EH parking brake	✓	
Radiator, high debris with wider fin spacing		✓	Ergonomic cab access ladders and handrails	✓	
Switch, transmission neutralizer lockout	✓		Filter, carbon fresh air		✓
Torque converter, locking clutch with free wheel stator	✓		Horn, electric	✓	
Transmission, automatic planetary power shift (4F/4R)	✓		Light, two dome (cab)	✓	
<b>CAT® CONNECT TECHNOLOGIES</b>			Mirrors, heated rearview external with integrated spot mirrors		✓
Detect technologies:			Mirrors, rearview external with integrated spot mirrors	✓	
Rear vision camera	✓		Multi-function 18 cm color touchscreen display for rear vision camera, clock and machine parameters	✓	
Cat rear object detection		✓	Post mounted membrane 16 switch keypad	✓	
Link technologies:			Precleaner, HVAC		✓
Product Link	✓		Precleaner, HVAC (RESPA)		✓
VIMS™		✓	Radio, AM/FM/CD/USB/MP3 Bluetooth®		✓
Payload technologies:		✓	Radio ready (entertainment) includes antenna, speakers and converter (12V, 10-amp)	✓	
Cat Production Measurement 2.0 (CPM), Printer, Cat Production Measurement, Aggregate Autodig			Receptacles (2), 12V	✓	
Advanced Productivity subscription		✓			
Machine security system		✓			

(continued on next page)

# 972M Wheel Loader Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
<b>OPERATOR ENVIRONMENT (continued)</b>			<b>ELECTRICAL AND LIGHTING (continued)</b>		
Roof, metallic		✓	Main disconnect switch	✓	
Seat, cloth, air suspension	✓		Receptacle start (cables not included)	✓	
Seat, suede/cloth, air suspension, heated		✓	Reversing strobes		✓
Seat, leather/cloth, air suspension, heated/cooled		✓	Speed limiter – 20 km/h		✓
Seat belt, 51 mm retractable, with indicator	✓		Starter, electric, heavy duty	✓	
Seat belt, 4-point harness, with indicator		✓	Starting and charging system (24V)	✓	
Steering, EH joystick, speed sensing with force feedback	✓		Secondary steering	✓	
Steering, EH wheel with directional FNR shifter and gear selector: – Additional FNR with implement controls		✓	Speed limiter, adjustable	✓	
Sun visor, front	✓		<b>FLUIDS</b>		
Sun visor, rear		✓	Bio-degradable oil, Cat HYDO™		✓
Viscous mounts	✓		Premixed extended life coolant with freeze protection to -34°C	✓	
Wet-arm wipers/washers front and rear, intermittent front wiper	✓		Premixed extended life coolant with freeze protection to -50°C		✓
Windows, rubber mounted		✓	<b>HYDRAULICS</b>		
Window, sliding (left and right sides)	✓		Hoses, Cat XT™	✓	
Windows, with front guard		✓	Hydraulic oil cooler (swing-out)	✓	
Windows, with heavy duty front guard		✓	Hydraulic system, load sensing	✓	
Windows, with full guards front, rear and sides		✓	Oil sampling valves	✓	
<b>ELECTRICAL AND LIGHTING</b>			3 <sup>rd</sup> function with Ride Control		✓
Alarm, back-up	✓		4 <sup>th</sup> function with Ride Control		✓
Alternator, 145-amp brushed	✓		Remote diagnostic pressure taps	✓	
Batteries (2), maintenance free 1,400 CCA	✓		Ride control, 2V	✓	
Emergency engine shutdown switch	✓		Steering, load sensing	✓	
External seat belt indicator light		✓	<b>LINKAGE</b>		
Ignition key: start/stop switch	✓		High lift		✓
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	✓		Kickout, lift and tilt, automatic	✓	
Work lights, four additional halogen cab-mounted or;		✓	Quick coupler ready		✓
Work lights, two additional auxiliary front HI LED and two additional auxiliary rear LED cab-mounted, 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		✓	Z-bar, cast crosstube/tilt lever	✓	
			<b>STARTERS, BATTERIES, AND ALTERNATORS</b>		
			Cold start – 240V		✓
			<b>WORK TOOLS</b>		
			Forks, logging		✓
			Forks, pallet		✓
			Fusion quick coupler		✓
			Performance Series buckets		✓

(continued on next page)

# 972M Wheel Loader Standard and Optional Equipment

## Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
<b>COMPUTERIZED MONITORING SYSTEM</b>			<b>OTHER STANDARD AND OPTIONAL EQUIPMENT</b>		
With following gauges:	✓		Auto idle shutdown	✓	
Speedometer/tachometer			Cat Autolube System		✓
Digital gear range indicator			Ecology drains for engine, transmission, and hydraulics	✓	
Diesel Exhaust Fluid (DEF) level			Ether aid ready	✓	
Temperature: engine coolant, hydraulic oil, transmission oil			Fenders, non-metallic front with mud-flap/rear with extension	✓	
Fuel level			Fenders, roading		✓
With following warning indicators:	✓		Filters: fuel, engine air, engine oil, hydraulic oil, transmission	✓	
Regeneration			Fuel cooler	✓	
Temperature: axle oil, engine intake manifold			Grease zerks	✓	
Pressure: engine oil, fuel pressure hi/low, primary steering oil, service brake oil			Grill, airborne debris	✓	
Battery voltage hi/low			Guard, power train		✓
Engine air filter restriction			Guard, rear radiator grill		✓
Hydraulic oil filter restriction			Hitch, drawbar with pin	✓	
Hydraulic oil low			Hood, non-metallic power tilting	✓	
Parking brake			Oil change, high-speed engine		✓
DEF low level			Platform, window washing	✓	
Transmission filter bypass			Precleaner, turbine		✓
			Precleaner, trash		✓
			Precleaner rain cap	✓	
			Service centers (electrical and hydraulic)	✓	
			Sight gauges: engine coolant, hydraulic oil, and transmission oil level	✓	
			Toolbox	✓	
			Vandalism protection caplocks	✓	
			Wheel chocks		✓
			<b>OTHER CONFIGURATIONS</b>		
			Aggregate handler		✓
			Industrial and waste handler		✓
			Steel Mill		✓

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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

© 2018 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, Cat Connect, Product Link, VIMS, XT, Fusion, HYDO, "Caterpillar Yellow", the "Power Edge" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEXQ2436-00 (12-2018)  
2019 Product Update  
Europe

