



# Cat<sup>®</sup> 424

## BACKHOE LOADER

The Cat<sup>®</sup> 424 Backhoe Loader delivers exceptional performance, superior fuel efficiency and a comfortable, safe and spacious operator station. The 424 features the following:

### **MORE FUEL EFFICIENT**

The Cat<sup>®</sup> C3.6 engine meets BS-V CMVR emissions standards, a step ahead of current regulatory requirements ensuring longevity in the market. The engine delivers impressive peak torque of up to 424 N-m from an optimised engine capacity of 3.6 L. This provides high fuel efficiency with up to 20% fuel saving over the previous model when operated in the new Eco mode.

### **MORE PERFORMANCE**

The design of the Parallel lift loader gives high breakout forces with capability for dozing and loading and increased dump height. The iconic Cat excavator style boom on the backhoe enables reach over obstacles and better loading capability in narrow spaces. Robust stick design and 205 degrees of bucket rotation give a solid platform to deliver superior material retention and performance, even on tough job sites. This combined with the variable displacement hydraulic pump (132 L/min flow @ 2,200 rpm) provides faster implement speeds and efficiency.

### **MORE COMFORT AND SAFETY**

The cabin is designed to meet ROPS (roll over protective structure) and FOPS (falling object protective structure), so the operator is protected. The stylish, spacious cabin gives excellent all-around visibility with fully integrated operator workstation including; suspension seat, clear information cluster and ergonomic controls. Opening side windows, door windows and large rear window enhance operator comfort, while improved cab mountings and window and door seals lower in cab vibrations and noise. The machine hood is opened from a button inside the cab to prevent vandalism and braking effort is lower to improve safety and reduce operator fatigue. Battery disconnect comes as standard for all machines.

### **MORE WORKTOOLS**

Operators have a wide range of worktool options for their machine. General purpose buckets come as standard with the optional multi-purpose loader buckets providing the operator the extra ability to grab, backfill, doze and grade. At the rear of the machine there are a variety of hoe bucket options from 0.12 to 0.3 m<sup>3</sup>, the Cat B8S hammer and other attachments can be supported through multiple auxiliary options including lines and brackets as well as manual hoe quick coupler.

### **MORE OPTIONS**

The machine options are designed to enhance the versatility of the backhoe loader. 2WD and 4WD options are available to better handle terrain. The operator can be more comfortable with air conditioning and adjustable vents that give optimal cooling. Additional front work lamps and sun visor increase operator visibility whether working night or day.

### **MORE ROBUST**

Components and structures on the machine are designed for high performance and to deliver rugged durability. The performance increases of this machine have been matched with increased weight and strength of structures. The large torque tube on the loader arms and bucket, strengthened frame, reinforced excavator style boom, proven engine and drivetrain and robust hydraulic components all deliver superior machine life and performance.

### **PRODUCT LINK™**

Product Link™ comes as standard on the Cat BHL Machine, owners can use Product Link to access machine data such as tracking machine hours and location to help increase productivity while reducing costs.

# 424 Backhoe Loader

## Engine

	<b>424 Standard Offering (2WD)</b>	
Engine	Cat C3.6* 55 kW Electronic Turbo Intercooled	
Ratings @ 2,200 rpm		
Gross Power (SAE J1995)	56 kW	75 hp
	76 hp (metric)	
Gross Power (ISO 14396)	55 kW	74 hp
	75 hp (metric)	
Net Power Rating @ 2,200 rpm		
SAE J1349	52 kW	70 hp
	71 hp (metric)	
ISO 9249	51 kW	69 hp
	70 hp (metric)	
Dimensions		
Bore	98 mm	
Stroke	120 mm	
Displacement	3.6 L	
Torque Rise (net)	86% @ 1,200 rpm	
Peak Torque	424 N·m	
Power Rating Conditions		
No De-Rating Required Up To	3048 m	

\*Meets India Bharat Stage V emission standards.

## Transmission\*

### Power Shuttle Transmission (Standard) – 2WD

Forward – 1st	5.7 km/h
2nd	9.6 km/h
3rd	23 km/h
4th	37.5 km/h
Reverse – 1st	5.7 km/h
2nd	9.6 km/h
3rd	23 km/h
4th	37.5 km/h

\*Travel speeds of backhoe loader at full throttle, when equipped with Industrial tires (16.9-28 Rear Tires).

## Axle Ratings

Front Axle, 2WD	
Static	N/A
Dynamic	N/A
Rear Axle	
Static	19 120 kg
Dynamic	7648 kg

## Hydraulic System

Type	Closed Center
Pump Type	Variable-Flow, Axial Piston
Pump Capacity @ 2,200 rpm	132 L/min
System Pressure	
Backhoe	245 bar
Loader	245 bar

## Weights\*

Operating Weight (estimated) (55 kW – 2WD)*	7980 kg
Operating Weight (maximum) (ROPS capacity)	8760 kg
Cab, ROPS/FOPS	118 kg
Air Conditioning	45 kg
Counterweights, Base	115 kg
Maximum	300 kg
Total Gross Weight Not to Exceed	8760 kg

\*Machine configuration: standard engine, standard stick hoe, standard cab with air conditioning, 2WD, 1.05 m<sup>3</sup> GP loader bucket, 0.27 m<sup>3</sup> standard duty hoe bucket, industrial tire, 115 kg counterweight, 80 kg operator, full fuel tank.

## Steering

Type	Front Wheel
Power Steering	Hydrostatic
2WD Cylinder, One (1) Double-Acting	
Bore	75 mm
Stroke	118 mm
Rod Diameter	45 mm
Axle Oscillation	± 9°
Turning Circle (inner wheel not braked)	2WD
Outside Front Wheels	9.3 m
Outside Widest Loader Bucket	12.2 m

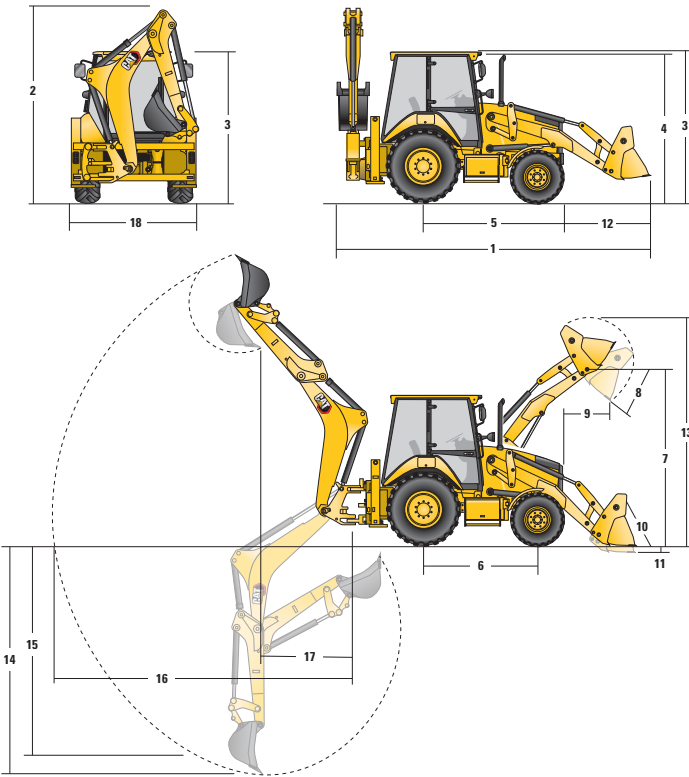
## Service Refill Capacities

Cooling System with Air Conditioning	20.0 L
Fuel Tank	160 L
Engine Oil with Filter	9.0 L
Transmission (Power Shuttle)	
2WD	14.0 L
Rear Axle	16.5 L
Planetaries	1.7 L
Hydraulic System	106.0 L
Hydraulic Tank	42.0 L

## Backhoe Buckets (with weld on adapters and pin-on teeth)

Heavy Duty	Width (mm)	Width (in)	Rated Capacity	No. of Teeth
Uni-Teeth	458 mm	18 in	0.12 m <sup>3</sup>	3
	762 mm	30 in	0.24 m <sup>3</sup>	5
	830 mm	33 in	0.27 m <sup>3</sup>	5
	901 mm	36 in	0.3 m <sup>3</sup>	5

## Machine Dimensions



	2WD Parallel Lift Loader	
	GP – 1.05 m <sup>3</sup>	MP – 1.0 m <sup>3</sup>
Overall Length (loader on ground hoe stowed to machine centerline)	7359 mm	7329 mm
<b>1</b> Overall Length in Rooding Position (15 degree approach angle and hoe stowed to side)	5686 mm	5657 mm
Overall Transportation Length (loader on ground and hoe stowed to side)	5708 mm	5653 mm
<b>2</b> Overall Transportation Height	3732 mm	3732 mm
Overall Width (excluding loader bucket)	2346 mm	2346 mm
<b>3</b> Height to Top of Cab	2928 mm	2928 mm
<b>4</b> Height to Top of Exhaust Stack	2715 mm	2715 mm
Height to Loader Hinge Pin (transport)	350 mm	352 mm
Ground Clearance (minimum) (stabilizer feet)	350 mm	350 mm
Ground Clearance (minimum) (LH step)	454 mm	454 mm
Ground Clearance (minimum) (300 kg counterweight)	386 mm	386 mm
<b>5</b> Rear Axle Centerline to Front Grill	2705 mm	2705 mm
Front Wheel Tread Gauge	1885 mm	1885 mm
Rear Wheel Tread Gauge	1688 mm	1688 mm
<b>6</b> Wheelbase	2200 mm	2200 mm

Dimensions and performance specifications shown are for machines equipped with industrial tires, standard cab, standard stick, 0.27 m<sup>3</sup> heavy duty bucket, and 1.05 m<sup>3</sup> GP loader bucket and standard equipment unless otherwise specified.

## Loader Bucket Dimensions and Performance

	2WD Parallel Lift Loader	
	GP – 1.05 m <sup>3</sup>	MP – 1.0 m <sup>3</sup>
Capacity (SAE rated)	1.05 m <sup>3</sup>	1.00 m <sup>3</sup>
Width	2262 mm	2262 mm
Lift Capacity at Maximum Height	3586 kg	3451 kg
Lift Breakout Force	52 967 N	52 458 N
Tilt Breakout Force	52 762 N	59 180 N
Tipping Load at Breakout Point	6869 kg	6965 kg
<b>7</b> Maximum Hinge Pin Height	3473 mm	3473 mm
<b>8</b> Dump Angle at Full Height	45°	45°
Dump Height at Maximum Angle	2794 mm	2794 mm
<b>9</b> Dump Reach at Maximum Angle	808 mm	731 mm
<b>10</b> Maximum Bucket Rollback at Ground Level	38°	39°
<b>11</b> Digging Depth	87 mm	119 mm
Maximum Grading Angle	114°	116°
Width of Dozer Cutting Edge	N/A	2262 mm
<b>12</b> Grill to Bucket Cutting Edge, Carry Position	1477 mm	1447 mm
<b>13</b> Maximum Operating Height	4394 mm	4372 mm
Jaw Opening Maximum	N/A	790 mm
Bucket Jaw Clamping Force	N/A	59 268 N
Weight (does not include teeth or forks)	530 kg	681 kg

## Backhoe Dimensions and Performance

	Standard Stick – 2WD
<b>14</b> Digging Depth, SAE Maximum	4138 mm
Digging Depth, Manufacturer's Maximum	4729 mm
<b>15</b> Digging Depth, 2440 mm (8 ft) Flat Bottom	3762 mm
Digging Depth, 610 mm (2 ft) Flat Bottom	4114 mm
Digging Depth, 610 mm (2 ft) Flat Bottom, Manufacturer's Maximum	4690 mm
Reach from Rear Axle Centerline at Ground Line	6978 mm
<b>16</b> Reach from Swing Pivot at Ground Line	5612 mm
Maximum Operating Height	5701 mm
Loading Height	4015 mm
<b>17</b> Loading Reach	1521 mm
Swing Arc	180°
Bucket Rotation	205°
Stabilizer Spread	N/A
<b>18</b> Stabilizer Overall Width	2242 mm
Bucket Dig Force	56 282 N
Stick Dig Force	34 933 N

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## Options

Available  Not Available

	424 (2WD India)	424 (4WD India)		424 (2WD India)	424 (4WD India)
<b>Cab ROPS and FOPS</b>			<b>Product Link™</b>		
Cab, Standard	✓	✓	PL 243	✓	✓
<b>Tires/Steering/Brakes</b>			<b>Other Options</b>		
Four Wheel Drive		✓	Air Conditioning	✓	✓
Two Wheel Drive	✓		Hydraulic Lines, One Way	✓	✓
<b>Engine</b>			Hoe Coupler	✓	✓
Engine, Cat® C3.6 55 kW	✓	✓	Additional Work Lamps	✓	✓
<b>Hydraulics (Choose One)</b>			Sun Visor	✓	✓
Hoe, 6 Bank Valve	✓	✓	Drive Shaft Guard		✓
Hoe, 7 Bank Valve (Hammer/Work Tools)	✓	✓	<b>Other Attachments</b>		
<b>Loader Bucket (Choose One)</b>			B8S Hammer	✓	✓
GP, 1.05 m³ Bucket	✓	✓	<b>Counterweight (Choose One)*</b>		
MP, 1.0 m³ Bucket	✓	✓	Counterweight, None	✓	✓
<b>Hoe Bucket (Choose One)</b>			Counterweight, 115 kg	✓	✓
0.27 m³ Bucket	✓	✓	Counterweight, 240 kg	✓	✓
0.24 m³ Bucket	✓	✓	Counterweight, 300 kg	✓	✓
0.12 m³ Bucket	✓	✓	*For correct counterweight selection, please contact your local Cat dealer.		
0.30 m³ Bucket	✓	✓			

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