



# 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. All Wheel Drive supports with better traction in hilly and tough terrain. 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 most 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. 4WD machines can also benefit from optional drive shaft guard preventing costly downtime.

### **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, lubricated for life front axles, 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 (4WD)</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-Shift Transmission – 4WD

Forward – 1st	5.7 km/h
2nd	9.6 km/h
3rd	23 km/h
4th	40.0 km/h
Reverse – 1st	5.7 km/h
2nd	9.6 km/h
3rd	23 km/h
4th	40.0 km/h

\*Travel speeds of backhoe loader at full throttle, when equipped with 12.5/80-18 front tires and 16.9-28 rear tires.

## Axle Ratings

Front Axle, 4WD	
Static	22 943 kg
Dynamic	9177 kg
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 – 4WD)*	8045 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 HRC engine, standard stick hoe, standard cab with air conditioning, 4WD standard shift transmission, 1.0 m<sup>3</sup> MP loader bucket, 0.27 m<sup>3</sup> standard duty hoe bucket, 12.5/80-18 and 16.9-28 tires, 115 kg counterweight, 80 kg operator, full fuel tank.

## Steering

Type	Front Wheel
Power Steering	Hydrostatic
4WD Cylinder, One (1) Double-Acting	
Bore	65 mm
Stroke	120 mm
Rod Diameter	36 mm
Axle Oscillation	± 11°
Turning Circle (inner wheel not braked)	
Outside Front Wheels	8.18 m
Outside Widest Loader Bucket	10.97 m

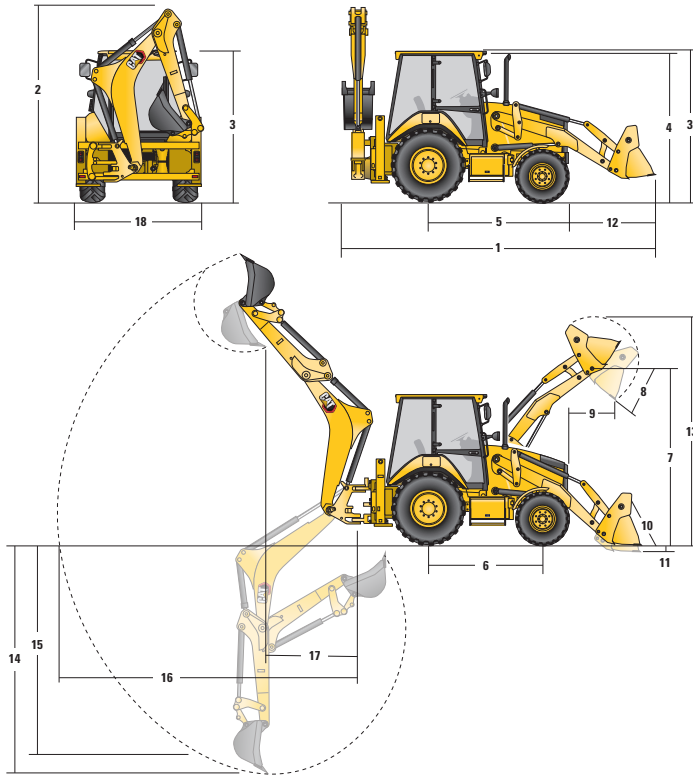
## Service Refill Capacities

Cooling System with Air Conditioning	20.0 L
Fuel Tank	160 L
Engine Oil with Filter	9.0 L
Transmission (Power Shuttle)	
4WD	18.0 L
Rear Axle	16.5 L
Planetaries	1.7 L
Front Axle (4WD)	11.0 L
Planetaries	0.7 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



	4WD 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)	7365 mm	7334 mm
<b>1</b> Overall Length in Rooding Position (15 degree approach angle and hoe stowed to side)	5677 mm	5674 mm
Overall Transportation Length (loader on ground and hoe stowed to side)	5725 mm	5681 mm
<b>2</b> Overall Transportation Height	3757 mm	3757 mm
Overall Width (excluding loader bucket)	2346 mm	2346 mm
<b>3</b> Height to Top of Cab	2992 mm	2992 mm
<b>4</b> Height to Top of Exhaust Stack	2716 mm	2716 mm
Height to Loader Hinge Pin (transport)	304 mm	311 mm
Ground Clearance (minimum) (stabilizer feet)	372 mm	372 mm
Ground Clearance (minimum) (Drive Shaft Guard)	280 mm	280 mm
Ground Clearance (minimum) (LH step)	454 mm	454 mm
Ground Clearance (minimum) (300 kg counterweight)	376 mm	376 mm
<b>5</b> Rear Axle Centerline to Front Grill	2708 mm	2708 mm
Front Wheel Tread Gauge	1895 mm	1895 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 12.5/80-18 front tires, 16.9-28 rear tires, standard cab, standard stick, 0.27 m<sup>3</sup> heavy duty bucket, and 1.03 m<sup>3</sup> MP loader bucket and standard equipment unless otherwise specified.

## Loader Bucket Dimensions and Performance

	4WD 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	3540 kg	3406 kg
Lift Breakout Force	53 212 N	52 667 N
Tilt Breakout Force	52 785 N	59 203 N
Tipping Load at Breakout Point	6225 kg	6301 kg
<b>7</b> Maximum Hinge Pin Height	3449 mm	3449 mm
<b>8</b> Dump Angle at Full Height	46°	46°
Dump Height at Maximum Angle	2735 mm	2766 mm
<b>9</b> Dump Reach at Maximum Angle	897 mm	822 mm
<b>10</b> Maximum Bucket Rollback at Ground Level	41°	42°
<b>11</b> Digging Depth	112 mm	145 mm
Maximum Grading Angle	113°	116°
Width of Dozer Cutting Edge	N/A	2262 mm
<b>12</b> Grill to Bucket Cutting Edge, Carry Position	1480 mm	1449 mm
<b>13</b> Maximum Operating Height	4370 mm	4348 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 – 4WD
<b>14</b> Digging Depth, SAE Maximum	4116 mm
Digging Depth, Manufacturer's Maximum	4707 mm
<b>15</b> Digging Depth, 2440 mm (8 ft) Flat Bottom	3740 mm
Digging Depth, 610 mm (2 ft) Flat Bottom	4092 mm
Digging Depth, 610 mm (2 ft) Flat Bottom, Manufacturer's Maximum	4668 mm
Reach from Rear Axle Centerline at Ground Line	6969 mm
<b>16</b> Reach from Swing Pivot at Ground Line	5603 mm
Maximum Operating Height	5721 mm
Loading Height	3934 mm
<b>17</b> Loading Reach	1528 mm
Swing Arc	180°
Bucket Rotation	205°
Stabilizer Spread	N/A
<b>18</b> Stabilizer Overall Width	2242 mm
Stabilizer Spread, Transport Position	N/A
Bucket Dig Force	56 284 N
Stick Dig Force	34 949 N

# 424 Backhoe Loader

## 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.		
0.3 m³ Bucket	✓	✓			

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