

# 434F2

## Backhoe Loader



### **Cab**

The introduction of the new cab to the Cat® Backhoe Loader provides a comfortable and easy to use operator environment. With the ability to customize many of the machine's features, the all new cab allows the operator to perform in greater comfort and enjoy the latest technologies available on today's generation of backhoe loaders.

### **Cat C4.4 ACERT™ Diesel Engines**

The latest in clean emissions technology. Cat C4.4 ACERT engines utilize enhanced electronic control which fully optimizes engine speed to the application. Series turbocharging with smart wastegate for fast response, high power, and increased torque. A combination of low sulfur diesel and diesel exhaust fluid (DEF) helps these engines meet the latest EU Stage IV emission standards.

### **Easing Your Workload**

Here at Caterpillar we understand that the role of a modern day Backhoe Loader operator can be demanding. Therefore the F2 Series machines have been developed with this in mind and offer a number of functions and options to help reduce the load on the operator; helping to maintain high productivity, controllability and comfort during those longer days. A new instrument panel with LCD display gives the operator quick access to the important information they need. The introduction of features such as: ECO mode, Product Link™ and Bluetooth hands free, really allows the operator to perform in comfort and safety while being in full control and having all the information needed to achieve the highest productivity possible.

### **Fuel Reduction**

We know that the ever-increasing price of fuel is a concern to today's customer. That's why we developed a unique fuel saving ECO mode to keep running costs to a minimum without impacting on operating performance.

### **Intelligent Hydraulics**

The F2 Series continues to offer load sensing hydraulics combined with full flow sharing technology. With our intelligent hydraulics technology, you get the flow you need, when you need it, where you need it most.

### **Secure Your Investment**

Protect your Backhoe Loader with the latest security technology. Select from built-in keypads, vandal guards, and the latest version of Product Link so you always know your machine is secure.

### **Hydraulics**

The F Series hydraulics have been given a boost on the new F2 machine. Increasing the pump capacity to give a greater flow rate will now allow the operator more hydraulic performance at their fingertips. The hydraulic system has been designed to work in tandem with the new ECO mode, providing fuel savings while not hindering high hydraulic performance.



# 434F2 Backhoe Loader Specifications

## Engine

	<b>EU Stage IV Standard Offering</b>	
Model	C4.4 ACERT 74.5 kW Electronic Turbo Intercooled	
Ratings at 2,200 rpm		
Gross Power ISO 14396	74 kW	101 hp
Net Power Rating at 2,200 rpm		
ISO 9249	70 kW	95 hp
EEC 80/1269	70 kW	95 hp
Bore	105 mm	
Stroke	127 mm	
Displacement	4.4 L	
Torque Rise (net) at 1,400 rpm	46%	
Power Rating Conditions		
No De-rating Required up to	2286 m	

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No derating required up to 2286 m altitude. Auto derate protects hydraulic and transmission systems.
- Meets EU Stage IV emission standards.

## Transmission

Travel speeds of Two Wheel Drive backhoe loader at full throttle, when equipped with 440/80-28 rear tires

	<b>Power Shuttle</b>	<b>Auto-Shift</b>	<b>Auto-Shift (Lock-Up)</b>
Forward			
1st	6 km/h	6 km/h	6 km/h
2nd	9 km/h	10 km/h	10 km/h
3rd	21 km/h	12 km/h	12 km/h
4th	40 km/h	20 km/h	20 km/h
5th		26 km/h	26 km/h
6th		40 km/h	40 km/h
Reverse			
1st	6 km/h	6 km/h	6 km/h
2nd	9 km/h	13 km/h	13 km/h
3rd	21 km/h	27 km/h	27 km/h
4th	40 km/h		

## Service Refill Capacities

Cooling System with A/C	22 L
Fuel Tank	160 L
Engine Oil with Filter	8.8 L
Diesel Exhaust Fluid	19 L
<b>Transmission (Power Shuttle)</b>	
AWD	15 L
<b>Transmission (Auto-Shift)</b>	
AWD	19 L
<b>Rear Axle</b>	
Center Housing	16 L
Planetaries	1.7 L
<b>Front Axle (AWD)</b>	
Center Housing	14 L
Planetaries	1.7 L
Hydraulic System	95 L
Hydraulic Tank	40 L

## Hydraulic System

Type	Closed Center
Pump Type	Variable-flow, Axial Piston
Maximum Pump Capacity	160 L/min
System Pressure	
Backhoe	250 Bar
Loader	250 Bar

## Noise Level

Inside Cab	74 dB(A)
Outside Cab	100 dB(A)

# 434F2 Backhoe Loader Specifications

## Weights\*

Operating Weight	9257 kg
Operating Weight (Maximum) (ROPS Capacity)	11 500 kg
Auto-Shift Transmission	76 kg
Ride Control	11 kg
Air Conditioning	34 kg
MP Bucket (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )	
with fold-over forks	948 kg
without fold-over forks	798 kg
Extendible Stick (excludes front counterweight)	203 kg
Counterweights, Base	115 kg
Maximum	115 kg
Minimum Counterweight Recommendations – Standard Stick	
Loader Bucket	
GP	0 kg
MP	0 kg
Minimum Counterweight Recommendations – Extendible Stick	
Loader Bucket	
GP	0 kg
MP	0 kg
Total Gross Weight Not to Exceed	11 500 kg

\*Machine Configuration – HRC 74.5 kW engine, standard stick hoe, standard cab with A/C, AWD standard shift transmission, 1.15 m<sup>3</sup> MP loader bucket, 24” standard duty hoe bucket, 440/80R24 tires, no counterweight, 80 kg operator, full fuel tank.

## Axles

All Wheel Drive (AWD)

### Features

- Heavy-duty rear axle with self adjusting inboard brakes, differential lock and final drives.
- AWD is engaged by front console panel switch or by brake pedal during all-wheel-braking operation. AWD can be engaged on the move, under load, in any gear, forward or reverse. AWD has outer final drives for easy maintenance.
- AWD front axle is pendulum mounted and permanently sealed and lubricated, requiring no daily maintenance. Also features double-acting steering cylinder with 52° steering angle for increased maneuverability.

## Axle Ratings

Front Axle, AWD	
Static	22 964 kg
Dynamic	9186 kg
Rear Axle	
Static	22 964 kg
Dynamic	9186 kg

## Steering

Type	Front Wheel
Power Steering	Hydrostatic
AWD Cylinder, One (1) Double-acting	
Bore	65 mm
Stroke	120 mm
Rod Diameter	36 mm
Axle Oscillation	11 mm

## Turning Circle

AWD (inner wheel not braked)	
Outside Front Wheels	9.8 m
Outside Widest Loader Bucket	12.59 m

## Brakes

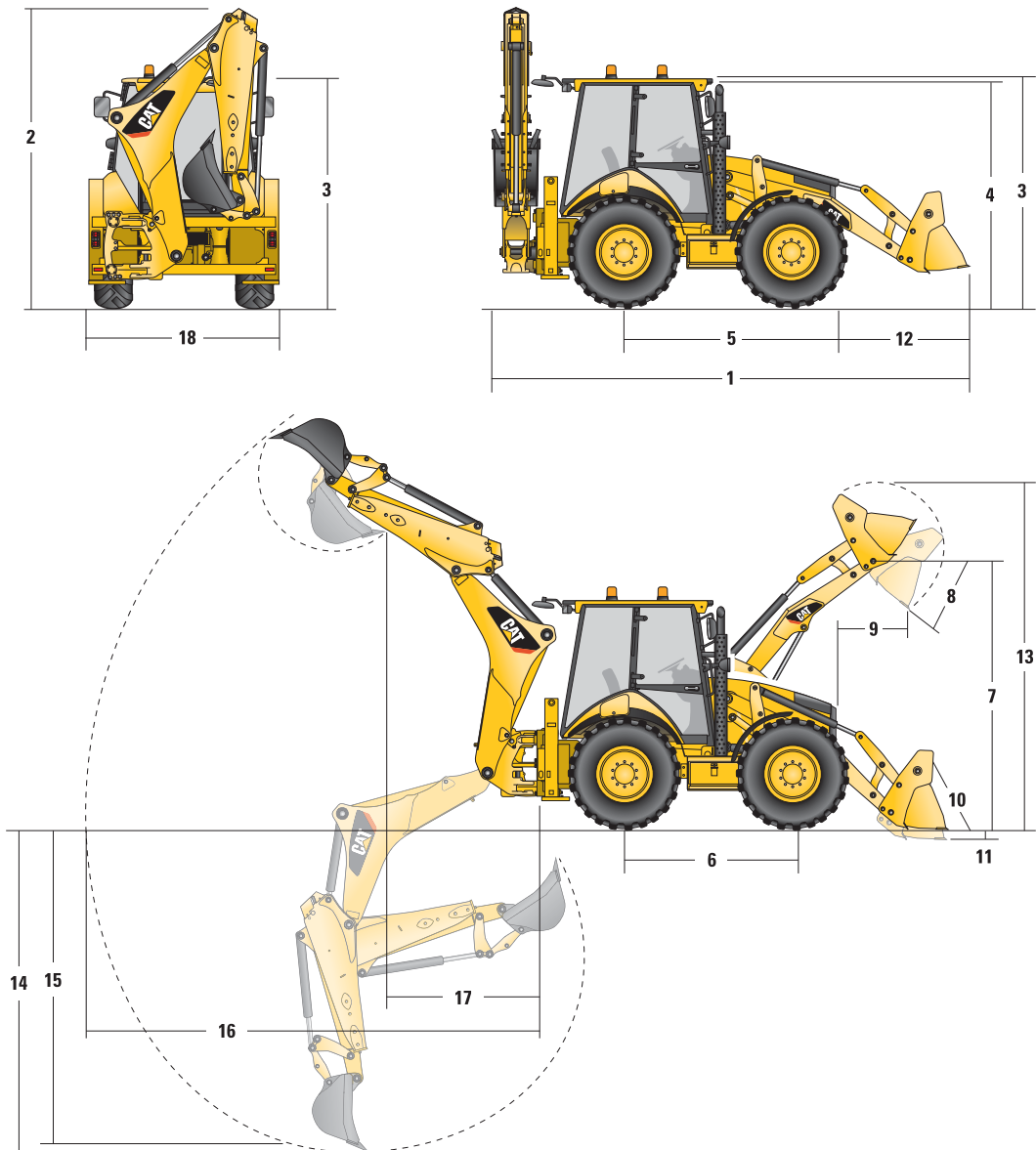
Fully enclosed boosted, hydraulic, multiple discs.

### Features

- Inboard oil-immersed, hydraulically actuated multiple Kevlar discs on final drive input shaft.
- Completely enclosed and sealed.
- Self-adjusting.
- Dual foot-operated boosted brake pedals can be interlocked for roading.
- Parking/secondary brakes are independent of the service brake system. Parking brake is mechanically applied through a hand lever located in the right side console.
- Meets ISO 3450:1996 requirements.

# 434F2 Backhoe Loader Specifications

## Machine Dimensions



	GP – 1.15 m <sup>3</sup>	MP – 1.15 m <sup>3</sup>	MP with forks – 1.15 m <sup>3</sup>
<b>1</b> Overall Length in Rooding Position	5841 mm	5840 mm	5843 mm
Overall Transportation Length	5900 mm	5900 mm	5900 mm
<b>2</b> Overall Transport Height – 4.3 m	3780 mm	3780 mm	3780 mm
Overall Width	2322 mm	2322 mm	2322 mm
<b>3</b> Height to Top of Cab/Canopy	2889 mm	2889 mm	2889 mm
<b>4</b> Height to Top of Exhaust Stack	2754 mm	2754 mm	2754 mm
<b>5</b> Rear Axle Centerline to Front Grill	2795 mm	2795 mm	2795 mm
<b>6</b> Wheelbase AWD	2235 mm	2235 mm	2235 mm

Dimensions and performance specifications shown are for machines equipped with 440/80R28 tires, standard cab, standard stick with 24 inch standard duty bucket, and 1.3 m<sup>3</sup> MP loader bucket and standard equipment unless otherwise specified.

# 434F2 Backhoe Loader Specifications

## Loader Bucket Dimensions and Performance

	GP – 1.15 m <sup>3</sup>	MP – 1.15 m <sup>3</sup>	MP with forks – 1.15 m <sup>3</sup>
Capacity	1.15 m <sup>3</sup>	1.15 m <sup>3</sup>	1.15 m <sup>3</sup>
Width	2434 mm	2434 mm	2434 mm
Lift Capacity at Maximum Height	4661 kg	4329 kg	4150 kg
Lift Breakout Force	61.3 kN	58.5 kN	56.6 kN
Tilt Breakout Force	63.4 kN	63.6 kN	62.3 kN
Tipping Load at Breakout Point	6677 kg	6484 kg	6301 kg
<b>7</b> Maximum Hinge Pin Height	3518 mm	3518 mm	3518 mm
<b>8</b> Dump Angle at Full Height	45°	45°	45°
Dump Height at Maximum Angle	2745 mm	2760 mm	2760 mm
<b>9</b> Dump Reach at Maximum Angle	923 mm	908 mm	908 mm
<b>10</b> Maximum Bucket Rollback at Ground Level	44°	44°	44°
<b>11</b> Digging Depth	154 mm	154 mm	154 mm
Maximum Grading Angle	109°	110°	110°
<b>12</b> Grill to Bucket Cutting Edge, Carry Position	1494 mm	1479 mm	1482 mm
<b>13</b> Maximum Operating Height	4386 mm	4463 mm	4341 mm
Bucket Weight (excluding teeth and forks)	438 kg	752 kg	927 kg

## Backhoe Dimensions and Performance

	Standard Stick – 4.3 m	E-stick Retracted – 4.3 m	E-stick Extended – 4.3 m
<b>14</b> Digging Depth, SAE Maximum	4349 mm	4353 mm	5330 mm
Digging Depth, Manufacturer's Maximum	4827 mm	4832 mm	5748 mm
<b>15</b> Digging Depth, 2.4 m Flat Bottom	3974 mm	3978 mm	5040 mm
Digging Depth, 0.6 m Flat Bottom	4306 mm	4309 mm	5296 mm
Digging Depth, 0.6 m Flat Bottom, Manufacturer's	4817 mm	4822 mm	5746 mm
Reach from Rear Axle Centerline at Ground Line	6745 mm	6750 mm	7676 mm
<b>16</b> Reach from Swing Pivot at Ground Line	5655 mm	5660 mm	6586 mm
Maximum Operating Height	5578 mm	5577 mm	6145 mm
Loading Height	3909 mm	3920 mm	4487 mm
<b>17</b> Loading Reach	1808 mm	1758 mm	2641 mm
Swing Arc	180°	180°	180°
Bucket Rotation	205°	205°	205°
<b>18</b> Stabilizer	2352 mm	2352 mm	2352 mm
Bucket Dig Force	63.4 kN	63.4 kN	63.4 kN
Stick Dig Force	36.1 kN	36.8 kN	26.9 kN

Dimensions and performance specifications shown are for machines equipped with 440/80R24 tires, standard cab, standard stick with 24 inch standard duty bucket, no counterweight, 1.15 m<sup>3</sup> MP loader bucket and standard equipment unless otherwise specified.

# 434F2 Backhoe 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>Cab ROPS and FOPS</b>			<b>Field Installed Attachments</b>		
Cab, Deluxe	—	✓	Powered Side Shift (PSS)	—	✓
Cab, Standard	✓	—	<b>Boom Sticks and linkages – Backhoe</b>		
*See Cab Options Page			Quick Coupler, Hydraulic	—	✓
<b>Tires/Steering/Brakes</b>			Quick Coupler, Mechanical	—	✓
All Wheel Drive	✓	—	Stick, Extending (4.3 m)	—	✓
All Wheel Steering	✓	—	Stick, Standard (4.3 m)	✓	—
100% Differential Lock	✓	—	Transport Lock, Swing	✓	—
Hydraulic Boosted Brakes (dual pedals)	✓	—	Transport Lock, Boom	✓	—
Tires 24 inch	✓	—	<b>Boom Sticks and Linkages – Loader</b>		
Tires 28 inch	—	✓	Loader Cutting Edge (2 pieces)	—	✓
<b>Engine/Transmission</b>			<b>Hydraulics</b>		
Battery 750 CCA, Maintenance Free (standard)	✓	—	Hydraulic Pump (160 L/min)	✓	—
Battery 750 CCA, Maintenance Free (heavy duty)	—	✓	Hydraulic Quick Disconnects (twist to connect)	—	✓
Hinged Radiator Unit for Simple Debris Removal	✓	—	Side Shift Lock (electro-hydraulic)	—	✓
ECO Mode	✓	—	Hydraulic Oil Cooler	✓	—
Engine 74.5 kW (101 hp) Cat C4.4 ACERT	✓	—	<b>Hydraulics – Backhoe</b>		
Engine Block Heater	—	✓	Hydraulic Lines, 1-Way	—	✓
Jump Start Connector	✓	—	Hydraulic Lines, 2 -Way	—	✓
Transmission, 4-Speed Manual	✓	—	<b>Hydraulics – Loader</b>		
Transmission, 6-Speed Automatic	—	✓	Loader Kickout, Float	✓	—
Transmission, 6-Speed Automatic (torque lock-up)	—	✓	Loader Kickout, Return to Dig	✓	—
<b>Input</b>			Auto Ride Control	—	✓
Controls, Mechanical Lever	✓	—	Parallel Lift	✓	—
Power Steering, Hydrostatic	✓	—	<b>Electrical</b>		
<b>Other Attachments</b>			Product Link, Cellular	—	✓
Counterweight, 115 kg	—	✓	Product Link, Satellite	—	✓
Front Fenders	—	✓	Reversing Alarm	✓	—
Street Pads, Stabilizers	—	✓	Stabilizer Alarm	✓	—
Tool Storage Box	✓	—	Beacon, Strobe	—	✓
Transport Tie-downs	✓	—	Beacon, Rotating	—	✓
<b>Guards</b>					
Guard, Teeth (GP/MP)	—	✓			
Guard, Driveshaft	—	✓			
Guard, Tail Lights	—	✓			
Loader Safety Brace	✓	—			
Object Handling Kit	—	✓			

# 434F2 Backhoe Loader Standard and Optional Equipment

## Cab Options

	Standard	Deluxe		Standard	Deluxe
Air Recirculation Control	—	✓	Internal Power Socket (×2)	✓	✓
Air Conditioning	optional	optional	Kickdown Function on Loader Control	✓	✓
Auto-Up Stabilizers	—	✓	Left Hand Storage Console	✓	✓
Beacon Socket (×2)	✓	✓	Premium Radio	optional	optional
Brake Pedals Operable Independently and Interlocked	✓	✓	Rear Tail Lights (LED)	✓	✓
Cab Heater	✓	✓	Removable Floor Mat	✓	✓
Cab Internal Light	✓	✓	Safety Lock, Hydraulics	✓	✓
Cab Internal Light (courtesy)	—	✓	Safety Lock, Transmission	✓	✓
Cup Holders (×2)	✓	✓	Seat, Deluxe Fabric	—	✓
Differential Lock Button on Loader Control	✓	✓	Seat, Deluxe Fabric Heated	optional	optional
Entry Level Radio	optional	optional	Seat, Fabric	✓	—
Face Fan	optional	optional	Security Keypad	optional	optional
Front and Rear Side Opening Windows	✓	✓	Self Cancelling Directional Indicators	✓	✓
Front Headlights*	✓	✓	Steering Wheel Column, Tilt and Telescopic Adjustment	—	✓
Full Width Perforated Sun Visor	✓	✓	Steering Wheel Column, Tilt	✓	—
Fully Adjustable Work Lights (×8)	✓	✓	Transmission Neutralizer on Loader Control	✓	✓
Gauge Cluster with LCD Display	✓	✓	Throttle, Foot	✓	✓
Horn Front	✓	✓	Throttle, Hand	✓	✓
Horn Rear	✓	✓	Window Wiper Front and Rear	✓	✓
Instrument Panel Vandal Guard	✓	✓			

\*May vary depending on region

# 434F2 Backhoe Loader

Materials and specifications are subject to change without notice.

Featured machines in photos may include additional equipment.

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).

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