



Cat[®] 428F2

BACKHOE LOADER

FEATURES:

- **Product Link™** – A feature that really allows you to get the most from your Cat[®] Backhoe Loader; view important machine information when you are away from the machine, or even track the machines location. The Product Link option will really help you get the highest possible productivity from your machine and stay in control.
- **Cab and Controls** – 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 your experience, 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.
- **Powerful Hydraulics** – The F2 Series machines really make an impact. High pump flow in a superior hydraulic system allows the operator excellent hydraulic performance at their fingertips.
- **Electro-Deposition Coating** – At Caterpillar we believe in built in quality. The 428F2 has been treated with an electro deposited (E-Coat) primer which completely seals the metallic components of the machines structure.

Specifications

Engine

	Stage II Standard Offering*	Stage II Optional Offering*	Stage IIIA Optional Offering**	Stage IIIA Optional Offering**
Engine	3054C 68.5 kW Mechanical Turbo	3054C 74.5 kW Mechanical Turbo	C4.4 70 kW Mechanical Turbo Intercooled	C4.4 74.5 kW Mechanical Turbo Intercooled
Rated Power (standard) @ 2,200 rpm				
Gross Power ISO 14396	68.5 kW/93 hp	74.5 kW/101 hp	70 kW/95 hp	74.5 kW/102 hp
Net Power Rating @ 2,200 rpm				
ISO 9249	64.9 kW/88 hp	70.9 kW/96 hp	65.2 kW/89 hp	70.1 kW/95 hp
EEC 80/1269	64.9 kW/88 hp	70.9 kW/96 hp	65.2 kW/89 hp	70.1 kW/95 hp
Torque Rise (net) @ 1,400 rpm	38%	31%	37%	32%
Maximum Torque	384 N·m	397 N·m	383 N·m	397 N·m
Dimensions				
Bore	105 mm	105 mm	105 mm	105 mm
Stroke	127 mm	127 mm	127 mm	127 mm
Displacement	4.4 L	4.4 L	4.4 L	4.4 L

*Meets Stage II/Tier 2 equivalent emission standards.

**Meets Stage IIIA/Tier 3 equivalent emission standards.

- 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.

Transmission

Travel speeds of two wheel drive backhoe loader at full throttle, when equipped with 16.9x28 rear tires.

	Power Shuttle	Auto-Shift	Auto-Shift (Optional)
Forward			
1st	5.6 km/h	6 km/h	6 km/h
2nd	9.3 km/h	9.6 km/h	9.6 km/h
3rd	21 km/h	12 km/h	12 km/h
4th	40 km/h	20 km/h	20 km/h
5th		27 km/h	25 km/h
6th		40 km/h	40 km/h
Reverse			
1st	5.6 km/h	6 km/h	6 km/h
2nd	9.3 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	22.5 L
Fuel Tank	160 L
Engine Oil with Filter	8.8 L
Transmission (Power Shuttle)	
AWD	15 L
Transmission (Auto-Shift)	
AWD	19 L
Rear Axle	16.5 L
Planetaries	1.7 L
Front Axle (AWD)	11 L
Planetaries	0.7 L
Hydraulic System	95 L
Hydraulic Tank	40 L



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Noise Level*

Inside Cab	74 dB(A)
Outside Cab	101 dB(A)

*Stage IIIA with EN474 Prep. Pack.

Weights*

Operating Weight (estimated) (C4.4)	8425 kg
Operating Weight (Maximum) (ROPS capacity)	11 000 kg
Cab, ROPS/FOPS	129 kg
Auto-Shift Transmission	55 kg
Ride Control	11 kg
Air Conditioning	42 kg
MP Bucket (1.00 m ³)	
With Fold-over Forks	871 kg
Without Fold-over Forks	611 kg
4.3 m Extendible Stick (excludes front counterweight)	203 kg
Counterweights	
Base	115 kg
Medium	240 kg
Maximum	460 kg
Minimum Counterweight Recommendations	
Standard Stick – Loader Bucket – GP	115 kg
Standard Stick – Loader Bucket – MP	0 kg
Extendible Stick – Loader Bucket – GP	460 kg
Extendible Stick – Loader Bucket – MP	0 kg

*Machine Configuration – standard engine, standard stick hoe, standard cab with A/C, AWD standard shift transmission, 1.03 m³ MP loader bucket, 24 inch standard duty hoe bucket, 12.5/80-18 and 16.9-28 tires, no counterweight, 80 kg operator and 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.

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

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

Turning Circle

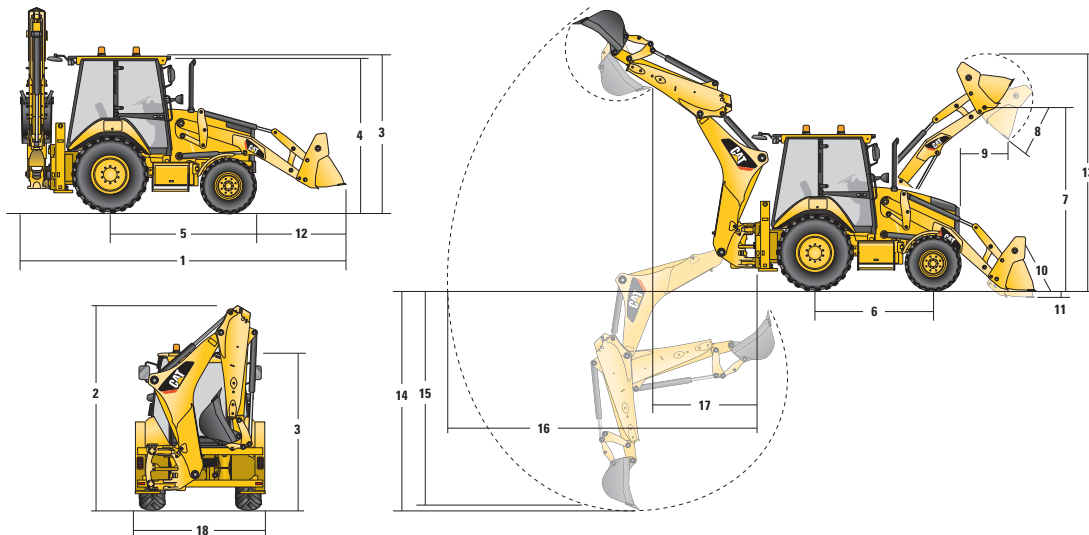
AWD (inner wheel not braked)	
Outside Front Wheels	8.18 m
Outside Widest Loader Bucket	10.97 m

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.



Machine Dimensions

	PL Loader GP – 1.0 m ³	MP – 1.03 m ³	MP with forks – 1.03 m ³
1 Overall Length in Rooding Position	5734 mm	5734 mm	5734 mm
Overall Transportation Length	5704 mm	5704 mm	5704 mm
2 Overall Transportation Height – 4.3 m	3779 mm	3779 mm	3779 mm
Overall Width	2352 mm	2352 mm	2352 mm
3 Height to Top of Cab/Canopy	2897 mm	2897 mm	2897 mm
4 Height to Top of Exhaust Stack	2744 mm	2744 mm	2744 mm
5 Rear Axle Centerline to Front Grill	2705 mm	2705 mm	2705 mm
6 Wheelbase AWD	2200 mm	2200 mm	2200 mm

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 16.9-28c rear tires, standard cab, standard stick with 24 inch standard duty bucket, and 1.0 m³ GP loader bucket and standard equipment unless otherwise specified.

Loader Bucket Dimensions and Performance

	GP – 1.0 m ³	MP – 1.03 m ³	MP with forks – 1.03 m ³
Capacity	1.0 m ³	1.03 m ³	1.03 m ³
Width	2406 mm	2406 mm	2406 mm
Lift Capacity at Maximum Height	3817 kg	3580 kg	3240 kg
Lift Breakout Force	54.82 kN	53.34 kN	50.24 kN
Tilt Breakout Force	54.84 kN	60.32 kN	58.79 kN
Tipping Load at Breakout Point	6557 kg	6537 kg	6260 kg
7 Maximum Hinge Pin Height	3497 mm	3497 mm	3497 mm
8 Dump Angle at Full Height	45°	45°	45°
Dump Height at Maximum Angle	2796 mm	2823 mm	2823 mm
9 Dump Reach at Maximum Angle	805 mm	731 mm	731 mm
10 Maximum Bucket Rollback at Ground Level	38°	39°	39°
11 Digging Depth	61 mm	94 mm	94 mm
Maximum Grading Angle	114°	116°	116°
12 Grill to Bucket Cutting Edge, Carry Position	1467 mm	1419 mm	1419 mm
13 Maximum Operating Height	4394 mm	4427 mm	4883 mm
Bucket Weight (excludes teeth and forks)	428 kg	611 kg	705 kg

Backhoe Dimensions and Performance

	Standard Stick – 4.3 m	E-stick Retracted – 4.3 m	E-stick Extended – 4.3 m
14 Digging Depth, SAE Maximum	4278 mm	4281 mm	5274 mm
Digging Depth, Manufacturer's Maximum	4775 mm	4778 mm	5696 mm
15 Digging Depth, 2400 mm Flat Bottom	3893 mm	3897 mm	4966 mm
Digging Depth, 600 mm Flat Bottom	4235 mm	4239 mm	5235 mm
Digging Depth, 600 mm Flat Bottom, Manufacturer's	4748 mm	4753 mm	5696 mm
Reach from Rear Axle Centerline at Ground Line	6739 mm	6744 mm	7670 mm
16 Reach from Swing Pivot at Ground Line	5649 mm	5654 mm	6580 mm
Maximum Operating Height	5691 mm	5692 mm	6297 mm
Loading Height	4016 mm	4025 mm	4630 mm
17 Loading Reach	1669 mm	1617 mm	2475 mm
Swing Arc	180°	180°	180°
Bucket Rotation	205°	205°	205°
18 Stabilizer Overall Width	2352 mm	2352 mm	2352 mm
Bucket Dig Force	63.44 kN	63.42 kN	63.42 kN
Stick Dig Force	36.17 kN	36.90 kN	26.98 kN

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Standard and Optional Equipment (Standard and Optional equipment may vary. Consult your Cat dealer for details.)

	Standard	Optional		Standard	Optional
Cab			Guards		
Cab, Deluxe	—	✓	Guard, Teeth (GP/MP)	—	✓
Cab, Standard	✓	—	Guard, Driveshaft	—	✓
Canopy, Plus	—	✓	Guard, Tail Lights	—	✓
*See Cab Options Page			Loader Safety Brace	✓	—
Tires/Steering/Brakes			Object Handling Kit	—	✓
All Wheel Drive	✓	—	Field Installed Attachments		
100% Differential Lock	✓	—	Powered Side Shift (PSS)	—	✓
Hydraulic Boosted Brakes (dual pedals)	✓	—	Boom Sticks and Linkages – Backhoe		
Tires 26 inch	✓	—	Quick Coupler, Hydraulic (backhoe)	—	✓
Tires 28 inch	—	✓	Quick Coupler, Mechanical (backhoe)	—	✓
Engine/Transmission			Stick, Extending (4.3 m)	—	✓
Battery 750 CCA, Maintenance Free (standard)	✓	—	Stick, Standard (4.3 m)	✓	—
Battery 750 CCA, Maintenance Free (heavy duty)	—	✓	Transport Lock, Swing	✓	—
Engine 68.5 kW (93 hp) Cat 3054C DIT	✓	—	Transport Lock, Boom	✓	—
Engine 74.5 kW (101 hp) Cat 3054C DIT	—	✓	Boom Sticks and Linkages – Loader		
Engine 70 kW (95 hp) Cat C4.4 Turbocharged	✓	—	Loader Cutting Edge (2 pieces)	—	✓
Engine 74.5 kW (101 hp) Cat C4.4 Turbocharged	—	✓	Hydraulics		
Engine Block Heater	—	✓	Hydraulic Pump (160 L/min)	✓	—
Jump Start Connector	✓	—	Hydraulic Quick Disconnects (twist to connect)	—	✓
Transmission Neutralizer	✓	—	Side Shift Lock (electro-hydraulic)	✓	—
Transmission, 4-Speed Manual	✓	—	Hydraulic Oil Cooler	✓	—
Transmission, 6-Speed Automatic	—	✓	Hydraulics – Backhoe		
Transmission, 6-Speed Automatic (torque lock-up)	—	✓	Hydraulic Lines, 1-Way	—	✓
Input			Hydraulic Lines, 2-Way	—	✓
Controls, Mechanical Lever	✓	—	Hydraulics – Loader		
Power Steering, Hydrostatic	✓	—	Loader Kickout, Float	✓	—
Other Attachments			Loader Kickout, Return to Dig	✓	—
Counterweight, 115 kg	—	✓	Auto Ride Control	—	✓
Counterweight, 240 kg	—	✓	Parallel Lift	✓	—
Counterweight, 460 kg	—	✓	Electrical		
Front Fenders	—	✓	Product Link, Cellular	—	✓
Street Pads, Stabilizers	—	✓	Product Link, Satellite	—	✓
Tool Storage Box	✓	—	Reversing Alarm	✓	—
Transport Tie-downs	✓	—	Beacon, Strobe	—	✓
			Beacon, Standard	—	✓

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