

Cat® **440**

BACKHOE LOADER

FEATURES:

The Cat® 440 Backhoe Loader delivers improved machine performance, a superior hydraulic system, improved operator controls and ergonomics, and overall versatility. The 440 features the following:

- Ergonomic Operator Station Adjustable Seat Mounted Controls improve ergonomics by increasing operator comfort and legroom. Operators have Loader and Backhoe Controls in the palm of their hands, whether they are facing the Loader, the Backhoe, or sitting off set. Variable Speed Steer reduces operator fatigue in applications, such as truck loading, by reducing the number of steering wheel rotations required to turn the machine. The new Spring Applied Hydraulically Released (SAHR) Parking Brake is controlled by simply pressing a button.
- Advanced Hydraulics The Cat Backhoe Loader's load sensing piston pump provides full hydraulic lifting and digging forces at any engine speed. Variable flow pump matches hydraulic power to work demands. The advanced hydraulic system allows the operator to adjust Loader and Backhoe Auxiliary Flow matching attachment specifications, program Loader Bucket Kickout and Return to Dig, and Enable Parallel Lift.
- Machine Performance The Cat C4.4 ACERT™ engine delivers solid performance and meets U.S. EPA Tier 4 Final/EU Stage IV emission standards by utilizing Selective Catalytic Reduction technology with a Diesel Oxidation Catalyst. The new Backhoe design and optimized Loader Linkage increases lift capacity and breakout forces on both ends of the machine. A redesigned Loader System provides superior machine balance and stability regardless of the ground conditions.
- Machine Versatility The all new Integrated Tool Carrier (IT Coupler) for Single Tilt Loader Arm configurations are available from the factory or for simple field installation. The Cat Backhoe Loader with Integrated Tool Carrier (IT Coupler) will be the most versatile machine on the job site providing quick connection to a variety of Cat Attachments.
- Cat Attachments A variety of Mechanical and Hydraulic Cat Backhoe Couplers are available from the factory or for field installation. Options include, but not limited to, Dual Lock Pin Grabber Couplers and Pin Lock Couplers. Redesigned General Purpose and Multi Purpose Loader Buckets increase digging performance and improve bucket durability for long term value.



Specifications

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Engine Model	C4.4 ACER	Γ
	87 kW (116	hp) Electronic -
	Turbo Inter	cooled
Ratings at 2,200 rpm		
Gross Power SAE J1995	88 kW	118 hp
Gross Power ISO 14396	87 kW	116 hp
Net Power Rating at 2,200 rpm		
SAE J1349	78 kW	104 hp
ISO 9249	78 kW	104 hp
Net Peak Power Rating		
SAE J1349 at 2,100 rpm	80.7 kW	108 hp
ISO 9249 at 1,800 rpm	80.7 kW	108 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	268 in ³
Torque Rise (Net) at 1,400 rpm	44%	
SAE J1349	487 N⋅m	360 lb-ft
Power Rating Conditions		
No De-Rating Required Up To	2286 m	7,500 ft

Weights

vveigina		
Operating Weight – Estimated*	9772 kg	21,544 lb
Operating Weight – Maximum		
(ROPS Capacity)	13 300 kg	29,321 lb
Counterweight	500 kg	1,102 lb
Cab, ROPS/FOPS	+243 kg	+536 lb
Loader Bucket		
1.53 m³ (2.0 yd³) GP (Pin-On)	+80 kg	+176 lb
1.34 m³ (1.75 yd³) MP HD (Pin-On)	+214 kg	+472 lb
1.34 m³ (1.75 yd³) MP ED (Pin-On)	+290 kg	+639 lb
1.34 m³ (1.75 yd³) GP (Hook-On)	–150 kg	–331 lb
1.53 m³ (2.0 yd³) GP (Hook-On)	–73 kg	-162 lb
1.34 m³ (1.75 yd³) MP HD (Hook-On)	+85 kg	+187 lb
1.34 m³ (1.75 yd³) MP ED (Hook-On)	+160 kg	+353 lb
Loader Quick Coupler	+250 kg	+551 lb
Backhoe Quick Coupler	+87 kg	+192 lb
Extendible Stick	+301 kg	+664 lb

^{*}Machine equipped with 340/80-18 front and 500/70-24 rear, AWD, OROPS, 1.34 m³ (1.75 yd³) general purpose bucket with bolt-on cutting edge, standard stick, 610 mm (24") severe-duty backhoe bucket.

GP = General Purpose

MP = Multi Purpose

HD = Heavy Duty

ED = Extreme Duty

Transmission

Autoshift Transmission		
Forward – 1st	5.9 km/h	3.7 mph
2nd	9.5 km/h	5.9 mph
3rd	12.4 km/h	7.7 mph
4th	19.6 km/h	12.2 mph
5th	26.8 km/h	16.7 mph
6th	39.2 km/h	24.4 mph
Reverse – 1st	5.9 km/h	3.7 mph
2nd	12.4 km/h	7.7 mph
3rd	26.8 km/h	16.7 mph

 Travel speeds of backhoe loader in two wheel drive at full throttle, when equipped with 500/70-24 rear tires.

Axle Ratings

Front Axle, AWD		
Static	22 936 kg	50,565 lb
Dynamic	9174 kg	20,225 lb
Rear Axle		
Static	22 936 kg	50,565 lb
Dynamic	9174 kg	20,225 lb

Hydraulic System

Туре	Closed Cent	er
Pump Type	Variable Flov	w, Axial Piston
Pump Capacity @ 2,200 rpm	220 L/min	58.1 gal/min
System Pressure		
Backhoe	26 200 kPa	3,800 psi
Loader	26 200 kPa	3,800 psi

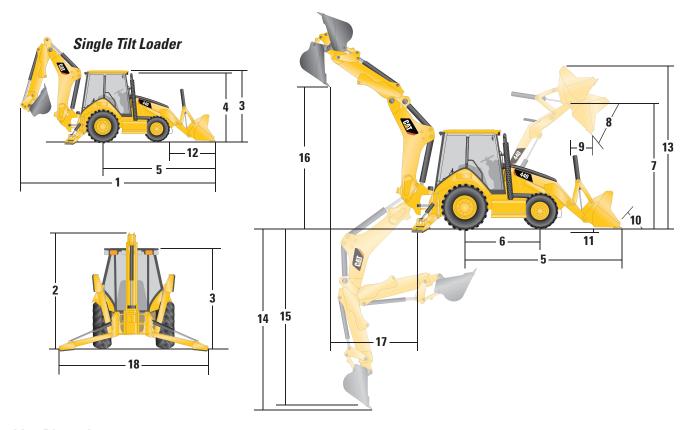
Steering

Туре	Front Wheel		
Power Steering	Hydrostati	c HMU	
Bore	85 mm	3.35 in	
Stroke	236 mm	9.29 in	
Rod Diameter	42 mm	1.65 in	
Axle Oscillation	11°		
Turning Circle – AWD (inner wheel not bra	aked)		
Outside Front Wheels	8.33 m	27'4"	
Outside Widest Loader Bucket	11.5 m	37'9"	

• AWD cylinder, one (1) double-acting.

Service Refill Capacities

Cooling System with Cab Heater	22.5 L	6.0 gal
Fuel Tank	160.0 L	42.3 gal
Engine Oil with Filter	8.8 L	2.3 gal
Diesel Exhaust Fluid (DEF)	19.0 L	5.0 gal
Transmission (Autoshift) – AWD, Autoshift	18.0 L	4.8 gal
Rear Axle (Center Housing)	16.5 L	4.4 gal
Front Axle (Center Housing)	11.0 L	2.9 gal
Planetaries	0.7 L	0.2 gal
Hydraulic System (Minimum)	120.0 L	31.7 gal
Hydraulic Tank (Nominal)	54.0 L	14.3 gal



Machine Dimensions

		Single Tilt Loader							
	Bucket	GP (Pi (1.34 m³/1		GP (Pir (1.53 m³/	- ,	MP HD ((1.34 m ³ /	•	MP ED (I (1.34 m³/1	•
1	Overall Length (loader on ground) – Standard Stick	7867 mm	25'10"	7957 mm	26'1"	7908 mm	25'11"	7880 mm	25'10"
	Overall Length (loader on ground) – Extendible Stick	7873 mm	25'10"	7963 mm	26'2"	7914 mm	26'0"	7885 mm	25'10"
	Overall Transport Length – Standard Stick	7822 mm	25'8"	7888 mm	25'11"	7870 mm	25'10"	7849 mm	25'9"
	Overall Transport Length – Extendible Stick	7827 mm	25'8"	7894 mm	25'11"	7876 mm	25'10"	7854 mm	25'9"
2	Overall Transport Height – Standard Stick	4052 mm	13'4"	4052 mm	13'4"	4052 mm	13'4"	4052 mm	13'4"
	Overall Transport Height – Extendible Stick	4061 mm	13'4"	4061 mm	13'4"	4061 mm	13'4"	4061 mm	13'4"
	Overall Width	2415 mm	7'11"	2415 mm	7'11"	2415 mm	7'11"	2415 mm	7'11"
3	Height to Top of Cab/Canopy	2769 mm	9'1"	2769 mm	9'1"	2769 mm	9'1"	2769 mm	9'1"
4	Height to Top of Exhaust Stack	2745 mm	9'0"	2745 mm	9'0"	2745 mm	9'0"	2745 mm	9'0"
	Height to Loader Hinge Pin (transport)	395 mm	1'4"	399 mm	1'4"	447 mm	1'6"	447 mm	1'6"
	Ground Clearance (LH step)	316 mm	1'0"	316 mm	1'0"	316 mm	1'0"	316 mm	1'0"
	Ground Clearance (AWD guard)	312 mm	1'0"	312 mm	1'0"	312 mm	1'0"	312 mm	1'0"
	Ground Clearance (counterweight)	378 mm	1'3"	378 mm	1'3"	378 mm	1'3"	378 mm	1'3"
5	Rear Axle Centerline to Front Grill	2819 mm	9'3"	2819 mm	9'3"	2819 mm	9'3"	2819 mm	9'3"
	Front Wheel Tread Gauge (track width)	2016 mm	6'7"	2016 mm	6'7"	2016 mm	6'7"	2016 mm	6'7"
	Rear Wheel Tread Gauge (track width)	1814 mm	5'11"	1814 mm	5'11"	1814 mm	5'11"	1814 mm	5'11"
6	Wheelbase AWD	2215 mm	7'3"	2215 mm	7'3"	2215 mm	7'3"	2215 mm	7'3"

440 Backhoe Loader

Loader Bucket Dimensions and Performance

		Single Tilt Loader							
	Bucket		in-On)	-	in-On)		(Pin-On)		(Pin-On)
		(1.34 m°/	(1.75 yd³)	(1.53 m ³	/2.U ya°)	(1.34 m°/	/1.75 yd³)	(1.34 m²/	/1.75 yd³)
	Capacity (SAE rated)	1.34 m ³	1.75 yd ³	1.53 m ³	2.00 yd ³	1.34 m ³	1.75 yd ³	1.34 m ³	1.75 yd ³
	Width	2450 mm	8'0"	2450 mm	8'0"	2450 mm	8'0"	2450 mm	8'0"
	Lift Capacity at Maximum Height	3983 kg	8,782 lb	3936 kg	8,677 lb	3746 kg	8,259 lb	3706 kg	8,171 lb
	Lift Breakout Force	52 587 N	11,822 lbf	50 458 N	11,343 lbf	50 171 N	11,278 lbf	49 979 N	11,235 lbf
	Tilt Breakout Force	60 321 N	13,560 lbf	54 653 N	12,286 lbf	57 423 N	12,909 lbf	58 426 N	13,134 lbf
	Tipping Load at Breakout Point	6424 kg	14,162 lb	6114 kg	13,479 lb	6144 kg	13,546 lb	6161 kg	13,582 lb
7	Maximum Hinge Pin Height	3628 mm	11'11"	3628 mm	11'11"	3628 mm	11'11"	3628 mm	11'11"
8	Dump Angle at Full Height	44°		44°		44°		44°	
	Dump Height at Maximum Angle	2711 mm	8'11"	2649 mm	8'8"	2680 mm	8'10"	2701 mm	8'10"
9	Dump Reach at Maximum Angle	923 mm	3'0"	990 mm	3'3"	941 mm	3'1"	926 mm	3'0"
10	Maximum Bucket Rollback at Ground Level	42	<u>2</u> °	42°		43°		43°	
11	Digging Depth	159 mm	6"	158 mm	6"	169 mm	7"	164 mm	6"
	Maximum Grading Angle	10	7°	10	5°	10	6°	10	17°
	Width of Dozer Cutting Edge	N,	/A	N,	/A	2438 mm	8'0"	2438 mm	8'0"
12	Grill to Bucket Cutting Edge, Carry Position	1785 mm	5'10"	1854 mm	6'1"	1833 mm	6'0"	1811 mm	5'11"
13	Maximum Operating Height	4732 mm	15'6"	4834 mm	15'10"	4736 mm	15'6"	4736 mm	15'6"
	Jaw Opening Maximum	N,	/A	N,	/A	1019 mm	3'4"	1019 mm	3'4"
	Bucket Jaw Clamping Force	N,	/A	N,	/A	36 635 N	8,236 lbf	36 635 N	8,236 lbf
	Weight (does not include teeth or forks)	1010 kg	2,227 lb	1090 kg	2,403 lb	1224 kg	2,698 lb	1300 kg	2,866 lb

Backhoe Dimensions and Performance

	Standa	rd Stick	E-Stick F	Retracted	E-Stick Extended	
14 Digging Depth, SAE (maximum)	4718 mm	15'6"	4717 mm	15'6"	5859 mm	19'3"
15 Digging Depth, 2440 mm (8'0") Flat Bottom	4374 mm	14'4"	4372 mm	14'4"	5585 mm	18'4"
Digging Depth, 610 mm (2'0") Flat Bottom	4691 mm	15'5"	4690 mm	15'5"	5832 mm	19'2"
Reach from Rear Axle Centerline at Ground Line	7462 mm	24'6"	7460 mm	24'6"	8555 mm	28'1"
16 Reach from Swing Pivot at Ground Line	6210 mm	20'5"	6209 mm	20'4"	7304 mm	24'0"
Overall Operating Height	6229 mm	20'5"	6229 mm	20'5"	7069 mm	23'2"
Loading Height	4275 mm	14'0"	4113 mm	13'6"	4705 mm	15'5"
17 Loading Reach	2119 mm	6'11"	2238 mm	7'4"	3227 mm	10'7"
Swing Arc	17	′5°	17	5°	17	5°
Bucket Rotation	20)5°	201°		201°	
18 Stabilizer Spread, Operating Position (outside edge of pad)	4224 mm	13'10"	4224 mm	13'10"	4224 mm	13'10"
Stabilizer Spread, Transport Position	2245 mm	7'4"	2245 mm	7'4"	2245 mm	7'4"
Bucket Dig Force	75 129 N	16,890 lbf	74 628 N	16,777 lbf	74 628 N	16,777 lbf
Stick Dig Force	45 370 N	10,199 lbf	46 093 N	10,362 lbf	34 256 N	7,701 lbf

440 Standard Equipment

STANDARD EQUIPMENT

- 4572 mm (15 ft) center pivot excavator style backhoe
- Adjustable auxiliary flow controls, loader and backhoe
- Air cleaner
- Alarm, back-up
- Alternator, 150 amp
- Audible system fault alarm
- Automatic Engine Speed Control (AESC)
- Autoshift transmission with six (6) forward and three (3) reverse gears and neutral safety switch
- Backhoe Safety Manual
- Battery Box, external, lockable
- Battery disconnect switch
- Battery, maintenance-free, 1,000 CCA
- Boom transport lock
- Brace, lift cylinder
- Brake, SAHR secondary parking
- Brakes, hydraulically boosted, oil disc, dual pedals, interlocking
- Canopy, ROPS/FOPS
- Cat cushion swing system
- CD-ROM Parts Manual
- Coat restraint
- Coolant/antifreeze, extended life
- Counterweight, bumper, 500 kg (1,102 lb)
- Diagnostic port for engine, machine and gauge cluster Electronic Control Modules
- Differential lock, loader joystick
- Dome light (cab only)
- Engine enclosure, sound suppression removal panels
- Engine, Cat C4.4 ACERT (Direct Injection Turbocharged), meets Tier 4 Final/Stage IV emission standards, selective catalyst reduction, diesel oxidation catalyst (DOC)
- Face seals, 0-ring
- Fan, suction and guard

- Fast reversing shuttle, all gears
- Fenders, rear
- Filters, bowl and cartridge: fuel, hydraulic fluid
- Filters, spin-on: engine oil, transmission oil, water separator
- Flashing hazards/signal lights
- Floor mat
- Four Wheel Drive/Brake Mode Selector
- Fuel tank, fully enclosed
- Fully hinged front grill for cooling package cleaning access
- Ground level fuel fill and DEF fill
- High ambient cooling package
- Hood lock, inside cab
- Hydraulic hose, XTTM
- Hydraulic oil cooler
- Hydraulic oil level sight gauge
- Hydraulic valves, backhoe six (6) function
- Hydraulic valves, loader three (3) function
- Hydraulics, load sensing with variable displacement piston pump and flow sharing valve
- Indicator lights: hydraulic implement lockout, hydraulic filter bypass, water in fuel, operator presence, remote dial throttle active, air filter blocked, engine warning, machine locked (if equipped), warning lamp, emissions module malfunction, low battery/ charging system warning, high hydraulic oil temperature; LCD warnings: engine oil pressure, service due, high coolant temperature, auto idle shutdown, high torque converter temperature
- Instrument panel lights
- Joystick controls: electrohydraulic controls with pattern changer valve
- Key start/stop system
- LCD operator screen
- Lights, working (four [4] front, four [4] rear)
- Loader joystick, self-leveling, return-to-dig, transmission disconnect switch, Forward/ Neutral/Reverse Switch, MP Auxiliary roller

- Loader, single tilt
- Machine Security System integrated into LCD operator display
- Mirror, rearview
- One-touch low idle
- Open circuit breather
- Operations and Maintenance Manual
- Pattern changer, in cab
- Power receptacle, 12 volt, one (1) internal + one (1) USB, two (2) external
- Product LinkTM
- Radio ready (Cab)
- Rubber impact strips on radiator guards
- Seat belt, retractable, 51 mm (2 in)
- Seat mounted controls
- Seat, air suspension with armrest
- Stabilizer pads, reversible
- Stabilizers, electrohydraulic, auto-up function
- Starting system, glow plugs
- Steering knob
- Steering, hydrostatic
- Stop and tail lights
- Storage compartment (Cab/Canopy), lockable
- Storage tray, electronics and miscellaneous items
- Swing transport lock
- Throttle, hand and foot, electronic
- Tilt steering wheel (Canopy),
 Tilt/telescoping (Cab)
- Tire Valve Stem Protection
- Tires
- Torque converter
- Transmission neutralizer switch
- Transport tie-downs
- Vandalism locks, four (4)
- Vandalism protection, gauge cover (Canopy)
- Warning horn, electric

440 Optional Equipment

OPTIONAL EQUIPMENT

- Battery, additional, 1,000 CCA
- Cab, deluxe with air conditioning
- Cold weather fuel (-30° C/-22° F)
- Cold weather package, including additional battery, engine block heater, radiator antifreeze, cold weather fuel (-30° C/-22° F) and mounting for an ether bottle
- Fenders, front with integral steps
- Guard, boom protection plate
- Guard, stabilizer, rock
- Guard, stabilizer, stab leg bottom

- Hydraulic lines, combined function auxiliary
- Hydraulic valves, loader quick coupler
- Lights, LED work lights, wide and spot
- Loader, Quick Coupler
- Quick Coupler, backhoe, hydraulic, dual lock
- Quick Coupler, backhoe, manual, dual lock
- Quick Coupler, backhoe, pin lock
- Radio and CD player, Bluetooth®
- Ride Control
- Rotating beacon, magnetic mount

- Seat belt, 75 mm (3 in)
- Seat, heated
- Stick, extendible
- Transmission, Autoshift with lock-up torque converter
- Work Tool Attachments such as buckets, forks, material handling arms, augers, hammers, brooms, cold planers and vibratory plate compactors. See your Cat dealer for more information.

440 Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat® C4.4 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)
 - √ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

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 (3.5 lb) of refrigerant which has a CO_2 equivalent of 2.3 metric tonnes (2.5 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
- Barium < 0.01%
- Cadmium < 0.01%
- − Chromium < 0.01%
- Lead < 0.01%

Sound Performance

Operator Sound Pressure Level (SAE J1166 FEB2014) – 83 dB(A)* Exterior Sound Power Level (SAE J1166 FEB 2014) – 79 dB(A)

*Measurements were conducted with properly installed and maintained cab doors and windows closed.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary.
 Consult your Cat dealer for details.
 - Save fuel and reduce your greenhouse gas emissions with efficiency features such as operator control modes selectable through the display and with fuel management modes.
 - Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine.
- Auto Idle helps reduce unnecessary fuel burn and greenhouse gas emissions by allowing the engine to automatically go into idle mode when the machine is not working.

Recycling

 The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	61.28%
Iron	19.65%
Fluid	3.61%
Other	3.45%
Rubber	3.25%
Nonferrous Metal	2.86%
Uncategorized	2.81%
Plastic	1.50%
Mixed-Metal and Nonmetal	1.07%
Mixed Metal	0.50%
Mixed Nonmetallic	0.02%
Total	100.00%

• A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused, or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability - 94%



For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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

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