

Cat[®] **450**

BACKHOE LOADER

FEATURES:

The Cat® 450 Backhoe Loader delivers improved machine performance, a superior hydraulic system, improved operator controls and ergonomics, and overall versatility. The 450 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

Engine Model	106 kW (14	C4.4 ACERT 106 kW (143 hp) Electronic – Turbo Intercooled	
Ratings at 2,200 rpm			
Gross Power SAE J1995	109 kW	146 hp	
Gross Power ISO 14396	106 kW	143 hp	
Net Power Rating at 2,200 rpm			
SAE J1349	98 kW	131 hp	
ISO 9249	98 kW	131 hp	
Net Peak Power Rating			
SAE J1349	100 kW	134 hp	
ISO 9249	100 kW	134 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	29%		
SAE J1349	540 N⋅m	400 lb-ft	
Power Rating Conditions			
No De-Rating Required Up To	2286 m	7,500 ft	

Weights

vveignts		
Operating Weight – Estimated*	10 904 kg	24,039 lb
Operating Weight – Maximum		
(Rollover Protective		
Structure [ROPS] Capacity)	13 300 kg	29,321 lb
Counterweight	974 kg	2,147 lb
Cab, ROPS/Falling Object		
Protective Structure (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	+151 kg	+333 lb
Extendible Stick	+338 kg	+745 lb

^{*}Machine equipped with 15-19.5 12 ply front and 21L-24 16 ply rear, All Wheel Drive (AWD), Open Roll Over Protective Structure (OROPS), 1.34 m³ (1.75 yd³) general purpose bucket with bolt-on cutting edge, standard stick, 610 mm (24") heavy-duty backhoe bucket.

GP = General Purpose

MP = Multi Purpose

HD = Heavy Duty

ED = Extreme Duty

Transmission

Autoshift Transmission		
Forward – 1st	6.0 km/h	3.7 mph
2nd	9.6 km/h	6.0 mph
3rd	12.5 km/h	7.8 mph
4th	19.8 km/h	12.3 mph
5th	27.2 km/h	16.9 mph
6th	40.6 km/h	25.2 mph
Reverse – 1st	6.0 km/h	3.7 mph
2nd	12.5 km/h	7.8 mph
3rd	27.2 km/h	16.9 mph

• Travel speeds of two wheel drive backhoe loader at full throttle, when equipped with 21×24 rear tires.

Axle Ratings

Front Axle, AWD		
Static	22 936 kg	50,565 lb
Dynamic	9174 kg	20,225 lb
Rear Axle		
Static	21 662 kg	47,756 lb
Dynamic	8665 kg	19,103 lb

Hydraulic System

· · · · · · · · · · · · · · · · · · ·		
Туре	Closed Cente	er
Pump Type	Variable Flov	v, 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

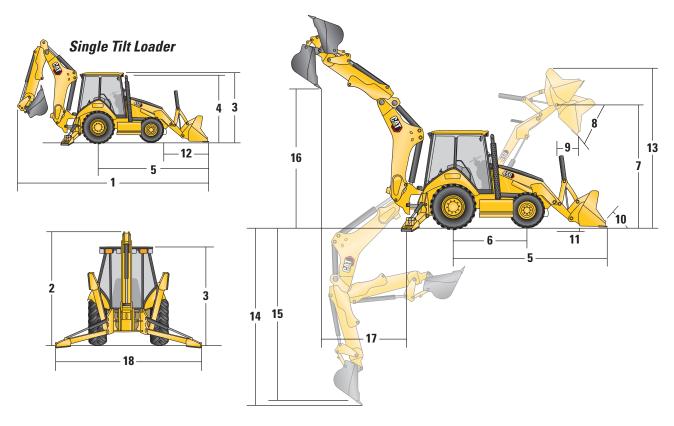
Туре	Front Whee	el
Power Steering	Hydrostatic Hydro- Mechanical Unit (HMU)	
Bore	85 mm	3.35 in
Stroke	236 mm	9.29 in
Rod Diameter	42 mm	1.65 in
Axle Oscillation	11°	
Turning Circle – AWD (inner wheel not bral	ked)	
Outside Front Wheels	8.396 m	27'7"
Outside Widest Loader Bucket	11.5 m	37'9"

• 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)	19.0 L	5.0 gal
Front Axle (Center Housing)	11.0 L	2.9 gal
Planetaries	0.7 L	0.2 gal
Hydraulic System (Minimum)	130.0 L	34.4 gal
Hydraulic Tank (Nominal)	54.0 I	14.3 gal

450 Backhoe Loader



Machine Dimensions

		Single Tilt Loader							
Bucket	Bucket		GP (Pin-On) (1.34 m³/1.75 yd³)		GP (Pin-On) (1.53 m³/2.0 yd³)		Pin-On) 1.75 yd³)	MP ED (Pin-On) (1.34 m ³ /1.75 yd ³)	
1 Overall Length (lo	ader on ground) – Standard Stick	7969 mm	26'2"	8060 mm	26'5"	8011 mm	26'3"	7982 mm	26'2"
Overall Length (lo	ader on ground) – Extendible Stick	7966 mm	26'2"	8056 mm	26'5"	8007 mm	26'3"	7978 mm	26'2"
Overall Transport	Length – Standard Stick	7933 mm	26'0"	8001 mm	26'3"	7983 mm	26'2"	7961 mm	26'1"
Overall Transport	Length – Extendible Stick	7929 mm	26'0"	7997 mm	26'3"	7979 mm	26'2"	7957 mm	26'1"
2 Overall Transport	Height – Standard Stick	4208 mm	13'10"	4208 mm	13'10"	4208 mm	13'10"	4208 mm	13'10"
Overall Transport	Height – Extendible Stick	4215 mm	13'10"	4215 mm	13'10"	4215 mm	13'10"	4215 mm	13'10"
Overall Width		2415 mm	7'11"	2415 mm	7'11"	2415 mm	7'11"	2415 mm	7'11"
3 Height to Top of C	ab/Canopy	2767 mm	9'1"	2767 mm	9'1"	2767 mm	9'1"	2767 mm	9'1"
4 Height to Top of E	xhaust Stack	2744 mm	9'0"	2744 mm	9'0"	2744 mm	9'0"	2744 mm	9'0"
Height to Loader I	Hinge Pin (transport)	388 mm	1'3"	393 mm	1'3"	440 mm	1'5"	440 mm	1'5"
Ground Clearance	e (Left Hand [LH] step)	315 mm	1'0"	315 mm	1'0"	315 mm	1'0"	315 mm	1'0"
Ground Clearance	e (AWD guard)	319 mm	1'1"	319 mm	1'1"	319 mm	1'1"	319 mm	1'1"
Ground Clearance	e (counterweight)	306 mm	1'0"	306 mm	1'0"	306 mm	1'0"	306 mm	1'0"
5 Rear Axle Centerl	ine to Front Grill	2841 mm	9'4"	2841 mm	9'4"	2841 mm	9'4"	2841 mm	9'4"
Front Wheel Tread	d Gauge (track width)	2016 mm	6'7"	2016 mm	6'7"	2016 mm	6'7"	2016 mm	6'7"
Rear Wheel Tread	l 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"

450 Backhoe Loader

Loader Bucket Dimensions and Performance

	Single Tilt Loader							
Bucket	- 1	- ,		- ,				(Pin-On) /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	4031 kg	8,886 lb	3984 kg	8,783 lb	3793 kg	8,362 lb	3754 kg	8,276 lb
Lift Breakout Force	52 397 N	11,779 lbf	50 273 N	11,301 lbf	49 986 N	11,237 lbf	49 791 N	11,193 lbf
Tilt Breakout Force	60 323 N	13,561 lbf	54 655 N	12,286 lbf	57 425 N	12,909 lbf	58 429 N	13,135 lbf
Tipping Load at Breakout Point	7399 kg	16,312 lb	7050 kg	15,543 lb	7102 kg	15,656 lb	7131 kg	15,720 lb
Maximum Hinge Pin Height	3649 mm	12'0"	3649 mm	12'0"	3649 mm	12'0"	3649 mm	12'0"
Dump Angle at Full Height	43	3°	4:	3°	43°		43°	
Dump Height at Maximum Angle	2740 mm	9'0"	2679 mm	8'9"	2709 mm	8'11"	2730 mm	8'11"
Dump Reach at Maximum Angle	901 mm	2'11"	968 mm	3'2"	920 mm	3'0"	905 mm	3'0"
Maximum Bucket Rollback at Ground Level	4	l°	41°		43°		43°	
Digging Depth	133 mm	5"	132 mm	5"	143 mm	6"	138 mm	5"
Maximum Grading Angle	10	7°	10)5°	106°		10	17°
Width of Dozer Cutting Edge	N,	/A	N	/A	2438 mm	8'0"	2438 mm	8'0"
Grill to Bucket Cutting Edge, Carry Position	1753 mm	5'9"	1822 mm	6'0"	1802 mm	5'11"	1779 mm	5'10"
Maximum Operating Height	4753 mm	15'7"	4856 mm	15'11"	4758 mm	15'7"	4758 mm	15'7"
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
	Capacity (SAE rated) Width Lift Capacity at Maximum Height Lift Breakout Force Tilt Breakout Force Tipping Load at Breakout Point Maximum Hinge Pin Height Dump Angle at Full Height Dump Height at Maximum Angle Dump Reach at Maximum Angle Maximum Bucket Rollback at Ground Level Digging Depth Maximum Grading Angle Width of Dozer Cutting Edge Grill to Bucket Cutting Edge, Carry Position Maximum Operating Height Jaw Opening Maximum Bucket Jaw Clamping Force	Capacity (SAE rated) Capacity (SAE rated) Nidth Lift Capacity at Maximum Height Lift Breakout Force 52 397 N Tilt Breakout Force 50 323 N Tipping Load at Breakout Point Tayay kg Maximum Hinge Pin Height Dump Angle at Full Height Dump Height at Maximum Angle Dump Reach at Maximum Angle Dump Reach at Maximum Angle Dump Reach at Maximum Angle Digging Depth Maximum Grading Angle Width of Dozer Cutting Edge Grill to Bucket Cutting Edge, Carry Position Maximum Operating Height Jaw Opening Maximum No Bucket Jaw Clamping Force	(1.34 m³/1.75 yd³) Capacity (SAE rated) 1.34 m³ 1.75 yd³ Width 2450 mm 8'0" Lift Capacity at Maximum Height 4031 kg 8,886 lb Lift Breakout Force 52 397 N 11,779 lbf Tilt Breakout Force 60 323 N 13,561 lbf Tipping Load at Breakout Point 7399 kg 16,312 lb Maximum Hinge Pin Height 3649 mm 12'0" Dump Angle at Full Height 43° Dump Height at Maximum Angle 2740 mm 9'0" Dump Reach at Maximum Angle 901 mm 2'11" Maximum Bucket Rollback at Ground Level 41° Digging Depth 133 mm 5" Maximum Grading Angle 107° Width of Dozer Cutting Edge N/A Grill to Bucket Cutting Edge, Carry Position 1753 mm 5'9" Maximum Operating Height 4753 mm 15'7" Jaw Opening Maximum N/A Bucket Jaw Clamping Force N/A	Capacity (SAE rated) 1.34 m³ 1.75 yd³ (1.53 m³ Width 2450 mm 8'0" 2450 mm Lift Capacity at Maximum Height 4031 kg 8,886 lb 3984 kg Lift Breakout Force 52 397 N 11,779 lbf 50 273 N Tilt Breakout Force 60 323 N 13,561 lbf 54 655 N Tipping Load at Breakout Point 7399 kg 16,312 lb 7050 kg Maximum Hinge Pin Height 3649 mm 12'0" 3649 mm Dump Angle at Full Height 43° 45 Dump Height at Maximum Angle 2740 mm 9'0" 2679 mm Dump Reach at Maximum Angle 901 mm 2'11" 968 mm Maximum Bucket Rollback at Ground Level 41° 4 Digging Depth 133 mm 5" 132 mm Maximum Grading Angle 107° 10 Width of Dozer Cutting Edge N/A N Grill to Bucket Cutting Edge, Carry Position 1753 mm 5'9" 1822 mm Maximum Operating Height 4753 mm 15'7" 4856 mm	Bucket GP (Pin-On) (1.34 m³/1.75 yd³) GP (Pin-On) (1.53 m³/2.0 yd³) Capacity (SAE rated) 1.34 m³ 1.75 yd³ 1.53 m³ 2.00 yd³ Width 2450 mm 8′0″ 2450 mm 8′0″ Lift Capacity at Maximum Height 4031 kg 8,886 lb 3984 kg 8,783 lb Lift Breakout Force 52 397 N 11,779 lb 50 273 N 11,301 lbf Tilt Breakout Force 60 323 N 13,561 lbf 54 655 N 12,286 lbf Tipping Load at Breakout Point 7399 kg 16,312 lb 7050 kg 15,543 lb Maximum Hinge Pin Height 3649 mm 12′0″ 3649 mm 12′0″ Dump Angle at Full Height 43° 2679 mm 8′9″ Dump Height at Maximum Angle 901 mm 2′11″ 968 mm 3′2″ Maximum Bucket Rollback at Ground Level 41° 41° 41° Digging Depth 133 mm 5″ 132 mm 5″ Maximum Grading Angle 107° 105° N/A Width of Dozer Cutting Edge, Carry Position	Bucket GP (Pin-On) (1.34 m²/1.75 yd²) GP (Pin-On) (1.53 m²/2.0 yd²) MP HD (1.34 m²/2.0 yd²) MP HD (1.34 m²/2.0 yd²) MP HD (1.34 m²/2.0 yd²) 1.34 m²/2.0 yd² 1.35 m²/2.0 yd² 1.34 m²/2.0 yd² 1.35 m²/2.0 yd² 1.35 m²/2.0 yd² 1.34 m²/2.0 yd² 1.34 m²/2.0 yd² 1.35 m²/2.0 yd² 1.35 m²/2.0 yd² 1.35 m²/2.0 yd² 1.34 m²/2.0 yd² <t< td=""><td>Bucket GP (PI→0) (1.34 m³/1.75 yd³) GP (PI→0) (1.53 m³/2.0 yd³) MP HD (PI→0) (1.34 m³/1.75 yd³) Capacity (SAE rated) 1.34 m³ 1.75 yd³ 1.53 m³ 2.00 yd³ 1.34 m³ 1.75 yd³ Width 2450 mm 8'0" 1,237 lbf 15 lbf 54 st 15 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,249 lbf 15 lbf <th< td=""><td>Bucket GP (PI → DN) (1.34 m²/ .75 yd²) GP (PI → DN) (1.53 m²/ .20 yd²) MP PD (Pi → DN) (1.34 m²/ .75 yd²) MP PD (1.34 m²/ .75 yd²) May m²/ .75 yd² 1.34 m² 2.00 yd² 1.34 m² 1.75 yd² 1.34 m² 1.34 m² 1.75 yd² 1.34 m² 2.450 mm 8'0" 2450 mm 9'0 N P 10 10 998 N P 11,231 lbf 49 98 N P 12,290 lbf 57 48 g N 49 98 N P 12,290 lbf 58 429 N P N 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10</td></th<></td></t<>	Bucket GP (PI→0) (1.34 m³/1.75 yd³) GP (PI→0) (1.53 m³/2.0 yd³) MP HD (PI→0) (1.34 m³/1.75 yd³) Capacity (SAE rated) 1.34 m³ 1.75 yd³ 1.53 m³ 2.00 yd³ 1.34 m³ 1.75 yd³ Width 2450 mm 8'0" 1,237 lbf 15 lbf 54 st 15 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 49 986 N 1,237 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,248 lbf 15 lbf 45 st 1,249 lbf 15 lbf <th< td=""><td>Bucket GP (PI → DN) (1.34 m²/ .75 yd²) GP (PI → DN) (1.53 m²/ .20 yd²) MP PD (Pi → DN) (1.34 m²/ .75 yd²) MP PD (1.34 m²/ .75 yd²) May m²/ .75 yd² 1.34 m² 2.00 yd² 1.34 m² 1.75 yd² 1.34 m² 1.34 m² 1.75 yd² 1.34 m² 2.450 mm 8'0" 2450 mm 9'0 N P 10 10 998 N P 11,231 lbf 49 98 N P 12,290 lbf 57 48 g N 49 98 N P 12,290 lbf 58 429 N P N 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10</td></th<>	Bucket GP (PI → DN) (1.34 m²/ .75 yd²) GP (PI → DN) (1.53 m²/ .20 yd²) MP PD (Pi → DN) (1.34 m²/ .75 yd²) MP PD (1.34 m²/ .75 yd²) May m²/ .75 yd² 1.34 m² 2.00 yd² 1.34 m² 1.75 yd² 1.34 m² 1.34 m² 1.75 yd² 1.34 m² 2.450 mm 8'0" 2450 mm 9'0 N P 10 10 998 N P 11,231 lbf 49 98 N P 12,290 lbf 57 48 g N 49 98 N P 12,290 lbf 58 429 N P N 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

Backhoe Dimensions and Performance

	Standa	Standard Stick		etracted	E-Stick Extended	
14 Digging Depth, SAE (maximum)	5185 mm	17'0"	5185 mm	17'0"	6417 mm	21'1"
15 Digging Depth, 2440 mm (8'0") Flat Bottom	4831 mm	15'10"	4831 mm	15'10"	6131 mm	20'1"
Digging Depth, 610 mm (2'0") Flat Bottom	5146 mm	16'11"	5146 mm	16'11"	6380 mm	20'11"
Reach from Rear Axle Centerline at Ground Line	7902 mm	25'11"	7902 mm	25'11"	9065 mm	29'9"
Reach from Swing Pivot at Ground Line	6651 mm	21'10"	6651 mm	21'10"	7814 mm	25'8"
Overall Operating Height	6462 mm	21'2"	6464 mm	21'2"	7217 mm	23'8"
Loading Height	4536 mm	14'11"	4518 mm	14'10"	5252 mm	17'3"
17 Loading Reach	2225 mm	7'4"	2239 mm	7'4"	3281 mm	10'9"
Swing Arc	17	′5°	175°		175°	
Bucket Rotation	19)8°	19	8°	19	8°
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	79 108 N	17,784 lbf	79 116 N	17,786 lbf	79 116 N	17,786 lbf
Stick Dig Force	52 953 N	11,904 lbf	53 669 N	12,065 lbf	40 573 N	9,121 lbf

Backhoe Lift Capacity

Cat 450 Standard Stick

14

15

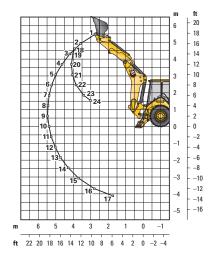
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Boom Lifting	kg	lb	Stick Lifting	kg	lb
1	2848	6,279	18	2880	6,349
2	2850	6,283	19	3170	6,989
3	2758	6,080	20	3568	7,866
4	2645	5,831	21	3860	8,511
5	2531	5,579	22	4195	9,247
6	2420	5,336	23	4843	10,677
7	2316	5,106	24	5670	12,499
8	2219	4,891			
9	2127	4,689			
10	2041	4,500			
11	1961	4,323	_		
12	1885	4,156	_		
13	1814	3,999	_		

3,851

3,711 3,583

3,536



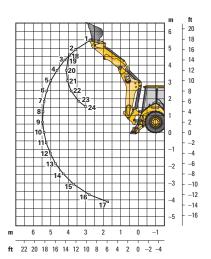
Cat 450 Extendible Stick - Retracted

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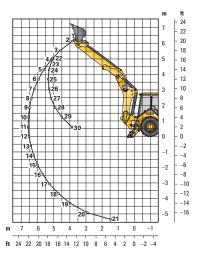
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Boom Lifting	kg	lb	Stick Lifting	kg	lb
1	2671	5,890	18	2727	6,013
2	2649	5,840	19	3018	6,653
3	2543	5,607	20	3415	7,528
4	2422	5,339	21	3706	8,171
5	2301	5,073	22	4039	8,905
6	2186	4,819	23	4685	10,329
7	2077	4,579	24	5509	12,145
8	1975	4,354			
9	1879	4,143			
10	1789	3,945			
11	1704	3,757			
12	1624	3,579			
13	1546	3,409			
14	1471	3,243			
15	1395	3,076	_		
16	1312	2,892	_		
17	1220	2,690	_		



Cat 450 Extendible Stick – Extended

Boom Lifting	kg	lb	Stick Lifting
1	1629	3,591	22
2	1651	3,640	23
3	1745	3,846	24
4	1755	3,870	25
5	1733	3,821	26
6	1696	3,739	27
7	1652	3,641	28
8	1604	3,536	29
9	1556	3,430	30
10	1508	3,325	
11	1462	3,223	
12	1417	3,124	_
13	1375	3,031	
14	1336	2,944	
15	1299	2,864	_
16	1267	2,793	_
17	1240	2,734	
18	1222	2,694	_
19	1223	2,695	
20	1285	2,832	_



Lift capacities are over-end values in accordance with SAE J31. Figures listed are 87% of the maximum lifting force available.

Machine equipped with 610 mm (24") HD hoe bucket, 4WD, OROPS, 1.34 m³ (1.75 yd³) cyd GP loader bucket.

3,877

When using the lifting eye, do not exceed the SWL of the link.

1758

kg

1528

1584

1820

1990

2130

2267

2432

3193

lb

3,369

3,492

4,012

4,386

4,695

4,998 5,362

5,911 7,040

450 Optional Equipment

STANDARD EQUIPMENT

- 5185 mm (17 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, 974 kg (2,147 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
- Guard, boom protection plate
- Guards, stabilizer, rock
- Hammer cup
- High ambient cooling package
- Hood lock, inside cab
- Hydraulic hose, XT™
- 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)
- Ride Control
- Rubber impact strips on radiator guards
- Seat belt, retractable, 51 mm (2 in)
- Seat mounted controls
- Seat, air suspension with armrest
- Stabilizer shoes, 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

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, stabilizer, stab leg bottom
- Hydraulic lines, combined function auxiliary
- Hydraulic valves, loader quick coupler
- Lights, LED work lights, wide and spotLoader, Quick Coupler
- Quick Coupler, backhoe, hydraulic, dual lock
- Radio and CD player, Bluetooth®
- Rotating beacon, magnetic mount

- Seat belt, 75 mm (3 in)
- Seat, heated
- Stick, extendible
- Work Tool Attachments such as buckets, flip over forks, hammers and vibratory plate com-pactors. See your Cat dealer for more information.

450 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 CO₂ 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			
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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