

416D Backhoe Loader

Tires

Tubeless, nylon, loader-design tires.

Type	Size	Ply Rating
2WD Bias		
Front	11L x 16	12
Rear	19.5 x 24	10
4WD Bias		
Front	12.5/80 x 18	10
Rear	19.5 x 24	10
4WD Radial		
Front	340/80 x R18	radial
Rear	19.5 x 24	radial
4WD Combination		
Front	340/80 x R18	radial
Rear	19.5 x 24	10

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Standard Duty Buckets

With weld-on adapters and pin-on teeth.

Width (mm/in)	Capacities SAE (liters/ft ³)	Weight (kg/lb)	No. of Teeth
305/12	78/2.8	97/213	3
457/18	118/4.2	115/253	4
610/24	175/6.2	132/290	5
762/30	233/8.2	147/323	5
914/36	292/10.3	165/363	6

High Capacity Buckets

With weld-on adapters and pin-on teeth.

Width (mm/in)	Capacities SAE (liters/ft ³)	Weight (kg/lb)	No. of Teeth
457/18	180/6.4	146/321	4
610/24	240/8.5	171/376	5
762/30	320/11.3	195/429	5
914/36	380/13.4	214/471	6

Heavy Duty Buckets

With weld-on adapters and pin-on teeth.

Width (mm/in)	Capacities SAE (liters/ft ³)	Weight (kg/lb)	No. of Teeth
305/12	78/2.8	105/231	3
406/16	105/3.7	127/279	3
457/18	118/4.2	129/284	4
610/24	175/6.2	151/332	5
762/30	233/8.2	167/367	5
914/36	292/10.3	189/416	6

Heavy Duty Rock Buckets

With weld-on adapters and pin-on teeth.

Width (mm/in)	Capacities SAE (liters/ft ³)	Weight (kg/lb)	No. of Teeth
305/12	70/2.5	120/265	3
457/18	127/4.5	150/331	4
610/24	198/7.0	175/386	5
762/30	255/9.5	195/430	5
914/36	311/11.5	210/463	6

Counterweights

Minimum Counterweight Recommendations — Standard Stick

Loader Bucket	Power Train	kg	lb
GP	2WD	355	780
GP	AWD	250	550
MP	2WD/AWD	bumper	bumper
MP with fold-over forks	2WD/AWD	bumper	bumper

Minimum Counterweight Recommendations — Extendible Stick

Loader Bucket	Power Train	kg	lb
GP	2WD	570	1,250
GP	AWD	570	1,250
MP	2WD	250	550
MP	AWD	145	320
MP with fold-over forks	2WD	bumper	bumper
MP with fold-over forks	AWD	bumper	bumper

Total gross vehicle weight not to exceed 9800 kg/21,605 lb.

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Machine Dimensions

	Single-Tilt Loader		
	General Purpose (0.76 m ³ /1.0 yd ³)	General Purpose (0.96 m ³ /1.25 yd ³)	Multi Purpose (0.96 m ³ /1.25 yd ³)
(1) Overall transport length	6949 mm/22 ft 10 in	7019 mm/23 ft 0 in	6974 mm/22 ft 11 in
Overall length (loader on ground)	6929 mm/22 ft 9 in	6999 mm/23 ft 0 in	6954 mm/22 ft 10 in
(2) Overall transport height (standard stick)	3585 mm/11 ft 9 in	3585 mm/11 ft 9 in	3585 mm/11 ft 9 in
Overall transport height (extendible stick)	3590 mm/11 ft 9 in	3590 mm/11 ft 9 in	3590 mm/11 ft 9 in
Overall width	2352 mm/7 ft 9 in	2352 mm/7 ft 9 in	2352 mm/7 ft 9 in
(3) Height to top of cab/canopy	2770 mm/9 ft 1 in	2770 mm/9 ft 1 in	2770 mm/9 ft 1 in
(4) Height to top of exhaust stack	2670 mm/8 ft 9 in	2670 mm/8 ft 9 in	2670 mm/8 ft 9 in
Height to loader hinge pin (transport)	510 mm/1 ft 8 in	510 mm/1 ft 8 in	510 mm/1 ft 8 in
Ground clearance (minimum)	297 mm/1 ft 0 in	297 mm/1 ft 0 in	297 mm/1 ft 0 in
(5) Rear axle centerline to front grill	2660 mm/8 ft 9 in	2660 mm/8 ft 9 in	2660 mm/8 ft 9 in
Front wheel tread gauge	1871 mm/6 ft 2 in	1871 mm/6 ft 2 in	1871 mm/6 ft 2 in
Rear wheel tread gauge	1714 mm/5 ft 8 in	1714 mm/5 ft 8 in	1714 mm/5 ft 8 in
(6) Wheelbase 2WD/AWD	2100 mm/6 ft 11 in	2100 mm/6 ft 11 in	2100 mm/6 ft 11 in

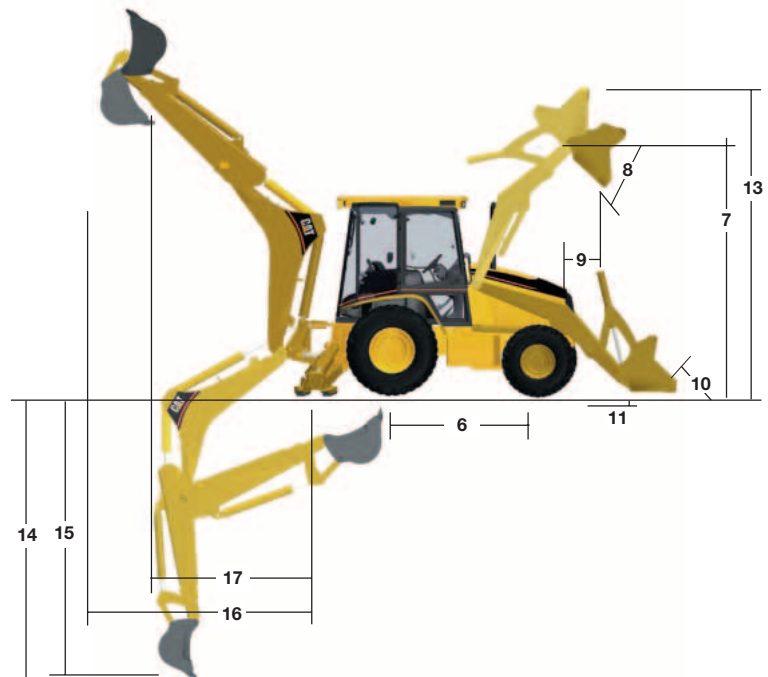
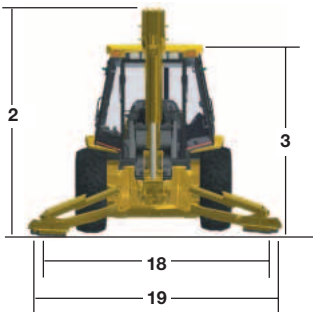
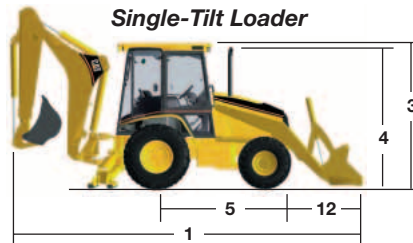
Loader Bucket Dimensions and Performance

	Single-Tilt Loader		
	General Purpose (0.76 m ³ /1.0 yd ³)	General Purpose (0.96 m ³ /1.25 yd ³)	Multi Purpose (0.96 m ³ /1.25 yd ³)
Capacity (SAE) rated	0.76 m ³ /1.0 yd ³	0.96 m ³ /1.25 yd ³	0.96 m ³ /1.25 yd ³
Width	2262 mm/7 ft 5 in	2262 mm/7 ft 5 in	2262 mm/7 ft 5 in
Lift capacity at maximum height	2473 kg/5,453 lb	2400 kg/5,292 lb	2240 kg/4,938 lb
Breakout force	40.0 kN/8,980 lb	37.9 kN/8,524 lb	37.5 kN/8,429 lb
(7) Maximum hinge pin height	3266 mm/10 ft 9 in	3266 mm/10 ft 9 in	3266 mm/10 ft 9 in
(8) Dump angle at full height	43°	43°	43°
Dump height at maximum angle	2621 mm/8 ft 7 in	2544 mm/8 ft 4 in	2609 mm/8 ft 7 in
(9) Dump reach at maximum angle	753 mm/2 ft 6 in	835 mm/2 ft 9 in	721 mm/2 ft 4 in
(10) Maximum bucket rollback at ground level	40°	40°	40°
(11) Digging depth	135 mm/5 in	135 mm/5 in	166 mm/6 in
Maximum grading angle	110°	106°	110°
Width of dozer cutting edge	N/A	N/A	2406 mm/7 ft 11 in
(12) Grill to bucket cutting edge, carry position	1474 mm/4 ft 10 in	1548 mm/5 ft 1 in	1501 mm/4 ft 11 in
(13) Maximum operating height	3996 mm/13 ft 1 in	4146 mm/13 ft 7 in	4174 mm/13 ft 8 in
Jaw opening maximum	N/A	N/A	790 mm/2 ft 7 in
Bucket jaw clamping force	N/A	N/A	50.6 kN/11,385 lb
Weight (does not include teeth or forks)	380 kg/838 lb	428 kg/944 lb	659 kg/1,453 lb

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Backhoe Dimensions and Performance

	Standard Stick	Extendible Stick Retracted	Extendible Stick Extended
(14) Digging depth, SAE (max)	4390 mm/14 ft 5 in	4465 mm/14 ft 8 in	5510 mm/18 ft 1 in
(15) Digging depth, 2 ft flat bottom	4362 mm/14 ft 4 in	4432 mm/14 ft 7 in	5474 mm/18 ft 0 in
Reach from rear axle centerline at ground line	6740 mm/22 ft 1 in	6795 mm/22 ft 4 in	7765 mm/25 ft 6 in
(16) Reach from swing pivot at ground line	5650 mm/18 ft 6 in	5705 mm/18 ft 9 in	6675 mm/21 ft 11 in
Maximum operating height	5450 mm/17 ft 11 in	5470 mm/17 ft 11 in	6140 mm/20 ft 2 in
Loading height	3613 mm/11 ft 10 in	3630 mm/11 ft 11 in	4175 mm/13 ft 8 in
(17) Loading reach	1732 mm/5 ft 8 in	1819 mm/6 ft 0 in	2736 mm/9 ft 0 in
Swing arc	180°	180°	180°
Bucket rotation	205°	205°	205°
(18) Stabilizer spread, operating position (center of pad)	3219 mm/10 ft 7 in	3219 mm/10 ft 7 in	3219 mm/10 ft 7 in
(19) Stabilizer spread, operating position (outside edge of pad)	3689 mm/12 ft 1 in	3689 mm/12 ft 1 in	3689 mm/12 ft 1 in
Stabilizer spread, transport position	2352 mm/7 ft 9 in	2352 mm/7 ft 9 in	2352 mm/7 ft 9 in
Bucket dig force	52.0 kN/11,702 lb	51.6 kN/11,599 lb	51.6 kN/11,599 lb
Stick dig force	34.9 kN/7,841 lb	34.2 kN/7,693 lb	25.2 kN/5,661 lb



Dimensions and performance specifications shown are for machines equipped with 11L x 16 (10 PR) front tires, 19.5 x 24 (10 PR) rear tires, ROPS canopy, standard stick with 24-inch standard-duty bucket, and 1.0 yd³ loader bucket and standard equipment unless otherwise specified.

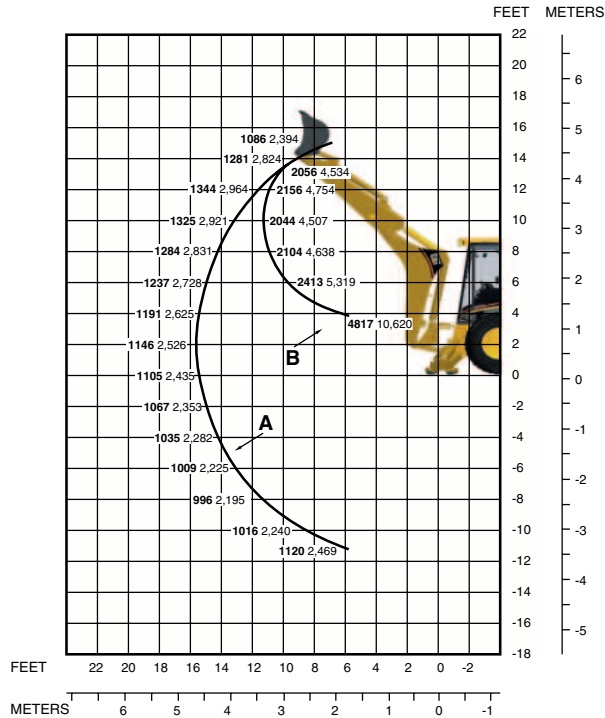
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Backhoe Lift Capacity

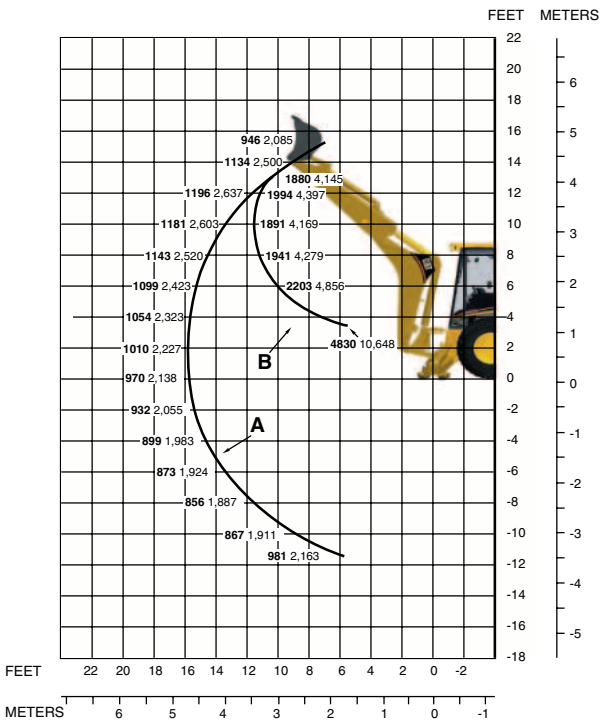
Cat 416D Standard Stick

KEY

- A — Boom lift kg lb
- B — Stick lift kg lb



Cat 416D Extendible Stick — Retracted



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Optional Equipment

With approximate change in operating weight (kg/lb).

Attachments, backhoe	Canopy Plus, ROPS with front windshield and wiper/washer system	13.6/30	Hydraulic valves, backhoe	
Mechanical Quick Coupler	Cat 3054C DIT engine (optional 80 HP net) . . . . .	.5/10	Auxiliary valve (standard stick) . . . . .	.5/11
D-Series Buckets	Coolant, additional protection (−50° C/−58° F) . . . . .	.0/0	Auxiliary valve (extendible stick) . . . . .	.5/11
C-Series buckets	Counterweights		Hydraulic lines	
D and Deere buckets	Base	145/320	Auxiliary, two-way (to boom) . .	10/22
D and Case buckets	Stackable		Universal, one-way (to stick) . .	.45/99
Attachments, front loader (single tilt)	One	105/230	Quick disconnects . . . . .	.2/4
General-purpose buckets	Two . . . . .	.249/550	Lights	
0.76 m ³ /1.0 yd ³*	Three . . . . .	.458/1010	Working, additional (2 front, 2 rear) . . . . .	.3/7
0.96 m ³ /1.25 yd ³	Also available . . . . .	.567/1250	Power receptacle, 12 volt, internal . . . . .	.0.2/1
Multi-purpose bucket	(Base + one 105/230 section)		Ride Control . . . . .	.25/55
0.96 m ³ /1.25 yd ³	Three . . . . .	.458/1010	Rotating beacon	
0.96 m ³ /1.25 yd ³ w/forks . .	(Base + two 105/230 sections)		Fixed mounted . . . . .	.5/11
Axle, front	(Base + one 105/230 section and one 317/700 section)		Magnetic mounted . . . . .	.5/11
All-wheel drive with driveshaft guard	Cutting edge, bolt-on		Stabilizers, available with guards	
Backhoe controls	Two piece . . . . .	.70/154	Street pads, rubber (set of 4) . .	.37/82
Excavator pattern	Fenders, AWD, front	12/26	Reversible pads . . . . .	.38/84
Foot swing, 3 or 4 lever	Guards		Stick, extendible . . . . .	.245/540
Battery, additional, 880 CCA . . .	AWD driveshaft . . . . .	.29/64	Teeth, loader bucket . . . . .	.45/99
Cab, Utility	Stabilizer, rock . . . . .	.30/65	Vandalism protection	
Cab, Utility Plus	High ambient cooling package . . . .	.2/4	Gauge cover . . . . .	.1/2
Includes radio-ready headliner, storage console, right side door, internal and external power receptacles, and tilt steering wheel	Hydraulic valves, loader 3rd valve for MP . . . . .	.27/60	Padlocks . . . . .	.1/2
Cab, Utility Plus with air conditioning			Hood lock . . . . .	.0/0

*Included in base machine weight