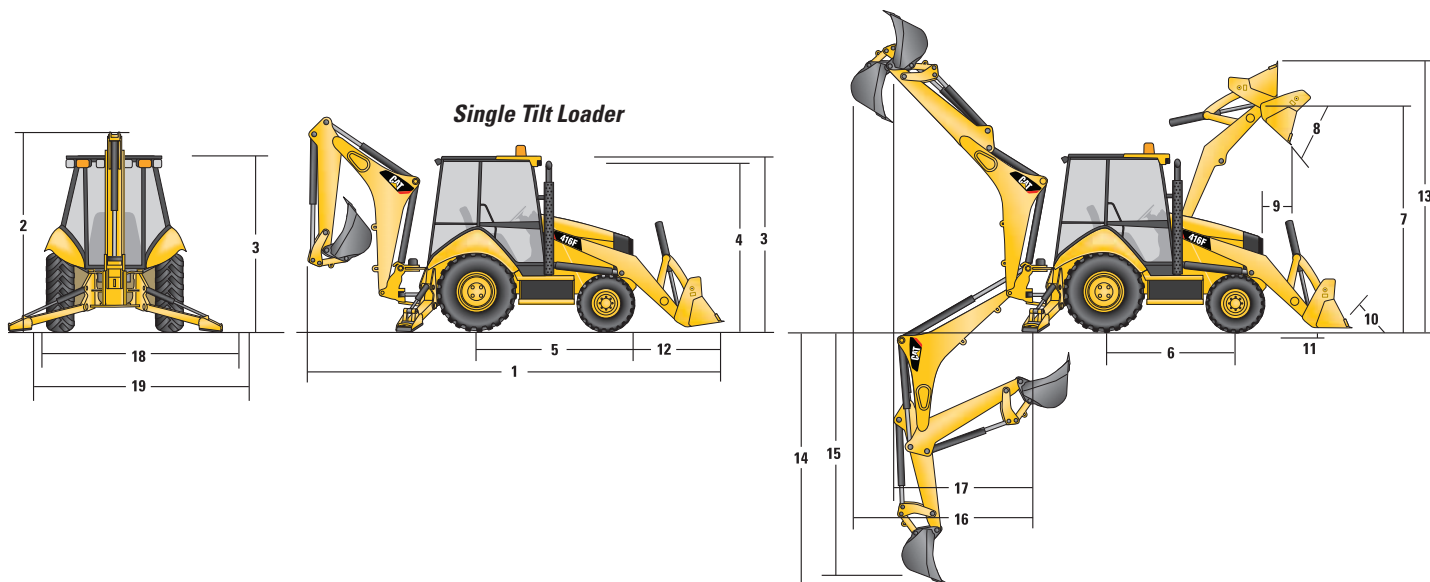


416F Backhoe Loader

Machine Dimensions



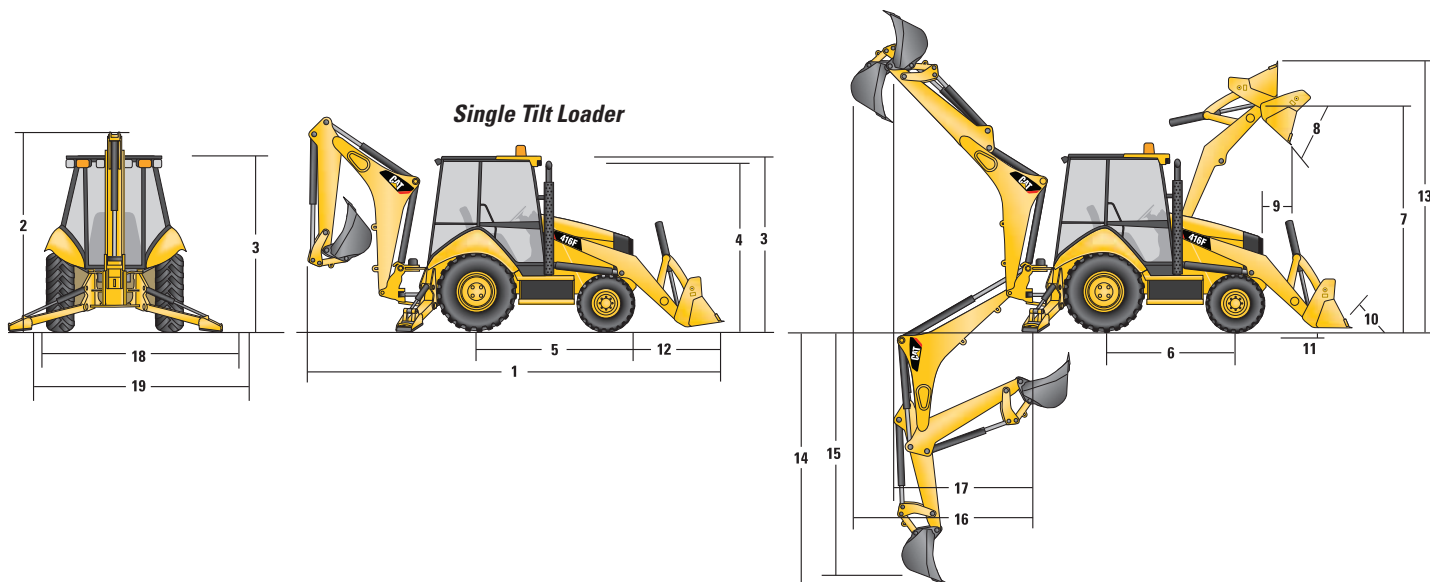
Single Tilt Loader

	General Purpose (0.76 m ³ /1.00 yd ³)		General Purpose (0.96 m ³ /1.25 yd ³)		Multi Purpose (1.00 m ³ /1.31 yd ³)		Multi Purpose with Forks (1.00 m ³ /1.31 yd ³)	
1 Overall Transport Length	7085 mm	23'3"	7168 mm	23'6"	7132 mm	23'5"	7132 mm	23'5"
Overall Length (loader on ground)	7027 mm	23'1"	7140 mm	23'5"	7057 mm	23'2"	7057 mm	23'2"
2 Overall Transport Height – Standard Stick	3577 mm	11'9"	3577 mm	11'9"	3577 mm	11'9"	3577 mm	11'9"
Overall Transport Height – Extendible Stick	3631 mm	11'11"	3631 mm	11'11"	3631 mm	11'11"	3631 mm	11'11"
Overall Width	2322 mm	7'7"	2322 mm	7'7"	2322 mm	7'7"	2322 mm	7'7"
3 Height to Top of Cab/Canopy	2819 mm	9'3"	2819 mm	9'3"	2819 mm	9'3"	2819 mm	9'3"
4 Height to Top of Exhaust Stack	2744 mm	9'0"	2744 mm	9'0"	2744 mm	9'0"	2744 mm	9'0"
Height to Loader Hinge Pin (transport)	381 mm	1'3"	381 mm	1'3"	432 mm	1'5"	432 mm	1'5"
Ground Clearance (minimum)	320 mm	1'1"	320 mm	1'1"	320 mm	1'1"	320 mm	1'1"
5 Rear Axle Centerline to Front Grill	2705 mm	8'10"	2705 mm	8'10"	2705 mm	8'10"	2705 mm	8'10"
Front Wheel Tread Gauge	1895 mm	6'3"	1895 mm	6'3"	1895 mm	6'3"	1895 mm	6'3"
Rear Wheel Tread Gauge	1714 mm	5'7"	1714 mm	5'7"	1714 mm	5'7"	1714 mm	5'7"
6 Wheelbase 2WD/AWD	2200 mm	7'3"	2200 mm	7'3"	2200 mm	7'3"	2200 mm	7'3"

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 in) standard duty bucket, 0.76 m³ (1.00 yd³) loader bucket and standard equipment unless otherwise specified.

416F Backhoe Loader

Loader Bucket Dimensions and Performance



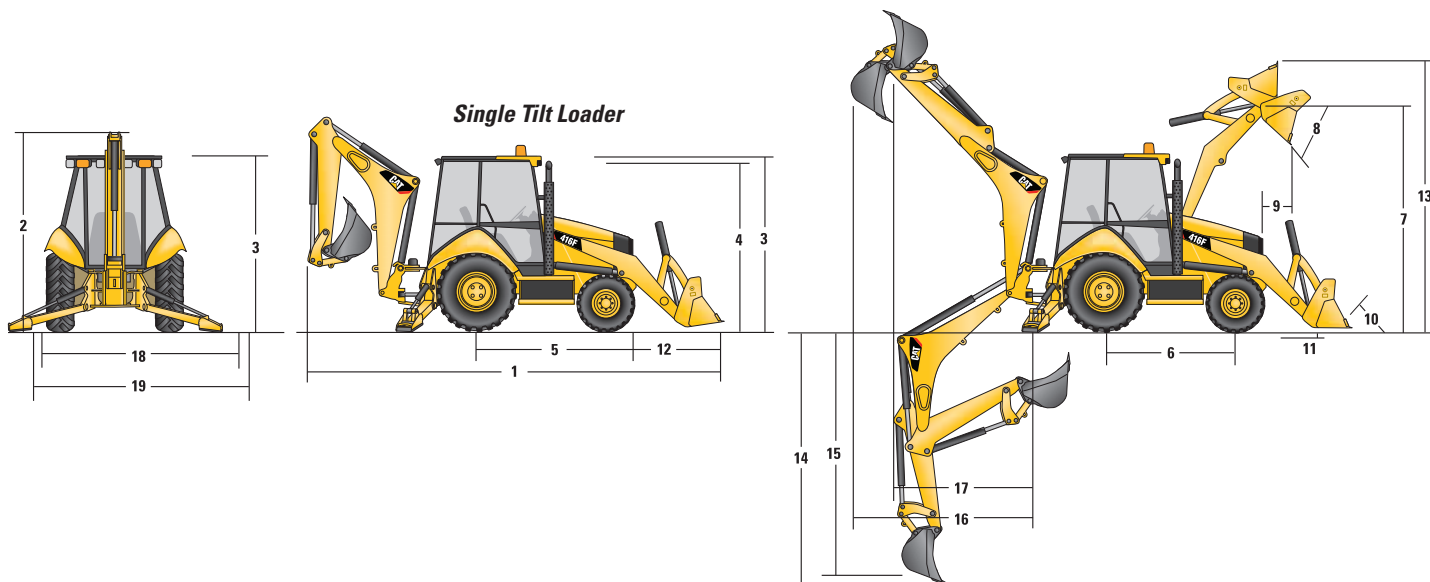
Single Tilt Loader

	General Purpose (0.76 m ³ /1.00 yd ³)		General Purpose (0.96 m ³ /1.25 yd ³)		Multi Purpose (1.00 m ³ /1.31 yd ³)		Multi Purpose with Forks (1.00 m ³ /1.31 yd ³)	
Capacity (SAE rated)	0.76 m ³	1.00 yd ³	0.96 m ³	1.25 yd ³	1.00 m ³	1.31 yd ³	1.00 m ³	1.31 yd ³
Overall Bucket Width	2262 mm	89"	2262 mm	89"	2279 mm	90"	2279 mm	90"
Lift Capacity at Maximum Height	3062 kg	6,751 lb	2964 kg	6,535 lb	2771 kg	6,108 lb	2656 kg	5,855 lb
Lift Breakout Force	47 919 N	10,772 lb	45 326 N	10,189 lb	44 392 N	9,979 lb	42 904 N	9,645 lb
Tilt Breakout Force	54 629 N	12,281 lb	45 993 N	10,339 lb	52 674 N	11,841 lb	51 760 N	11,636 lb
7 Maximum Hinge Pin Height	3474 mm	11'5"	3474 mm	11'5"	3474 mm	11'5"	3474 mm	11'5"
8 Dump Angle at Full Height	44°		44°		44°		44°	
Dump Height at Maximum Angle	2824 mm	9'3"	2746 mm	9'0"	2798 mm	9'2"	2798 mm	9'2"
9 Dump Reach at Maximum Angle	727 mm	2'5"	808 mm	2'8"	716 mm	2'4"	716 mm	2'4"
10 Maximum Bucket Rollback at Ground Level	37°		37°		38°		38°	
11 Digging Depth	83 mm	3"	83 mm	3"	110 mm	4"	110 mm	4"
Maximum Grading Angle	116°		112°		116°		116°	
Width of Dozer Cutting Edge	N/A		N/A		2262 mm	7'5"	2262 mm	7'5"
12 Grill to Bucket Cutting Edge, Carry Position	1404 mm	4'7"	1487 mm	4'11"	1451 mm	4'9"	1451 mm	4'9"
13 Maximum Operating Height	4206 mm	13'10"	4355 mm	14'3"	4404 mm	14'5"	4878 mm	16'0"
Jaw Opening Maximum	N/A		N/A		790 mm	2'7"	790 mm	2'7"
Bucket Jaw Clamping Force	N/A		N/A		50 600 N	11,375 lb	50 600 N	11,375 lb
Weight (does not include teeth or forks)	384 kg	847 lb	451 kg	994 lb	745 kg	1,642 lb	915 kg	2,017 lb

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 in) standard duty bucket, 0.76 m³ (1.00 yd³) loader bucket and standard equipment unless otherwise specified.

416F Backhoe Loader

Backhoe Dimensions and Performance



	Standard Stick		E-Stick Retracted		E-Stick Extended	
14 Digging Depth, SAE (maximum)	4360 mm	14'4"	4389 mm	14'5"	5441 mm	17'11"
15 Digging Depth, 610 mm (2 ft) Flat Bottom	4309 mm	14'2"	4350 mm	14'4"	5404 mm	17'10"
Reach from Rear Axle Centerline at Ground Line	6702 mm	22'1"	6738 mm	22'2"	7742 mm	25'6"
16 Reach from Swing Pivot at Ground Line	5612 mm	18'5"	5648 mm	18'7"	6652 mm	21'10"
Maximum Operating Height	5525 mm	18'2"	5549 mm	18'3"	6286 mm	20'8"
Loading Height	3643 mm	11'11"	3600 mm	11'9"	4170 mm	13'7"
17 Loading Reach	1838 mm	6'0"	1925 mm	6'4"	2840 mm	9'4"
Swing Arc	108°		108°		108°	
Bucket Rotation	205°		205°		205°	
18 Stabilizer Spread, Operating Position (center)	3310 mm	10'10"	3310 mm	10'10"	3310 mm	10'10"
Stabilizer Spread, Operating Position (outside)	3770 mm	12'4"	3770 mm	12'4"	3770 mm	12'4"
Stabilizer Spread, Transport Position	2322 mm	7'7"	2322 mm	7'7"	2322 mm	7'7"
Bucket Dig Force	57 709 N	12,973 lb	56 898 N	12,791 lb	56 898 N	12,791 lb
Stick Dig Force	32 378 N	7,279 lb	32 421 N	7,289 lb	23 796 N	5,350 lb

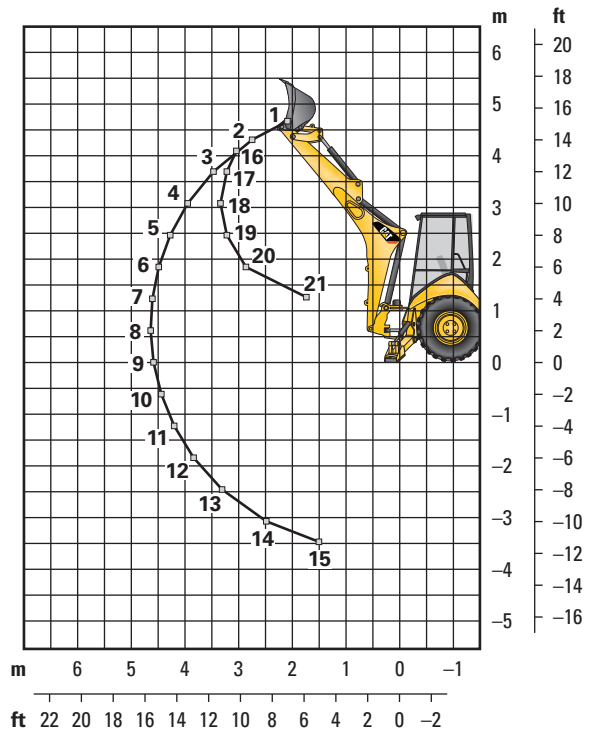
Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 in) standard duty bucket, 0.76 m³ (1.00 yd³) loader bucket and standard equipment unless otherwise specified.

416F Backhoe Loader

Backhoe Lift Capacity

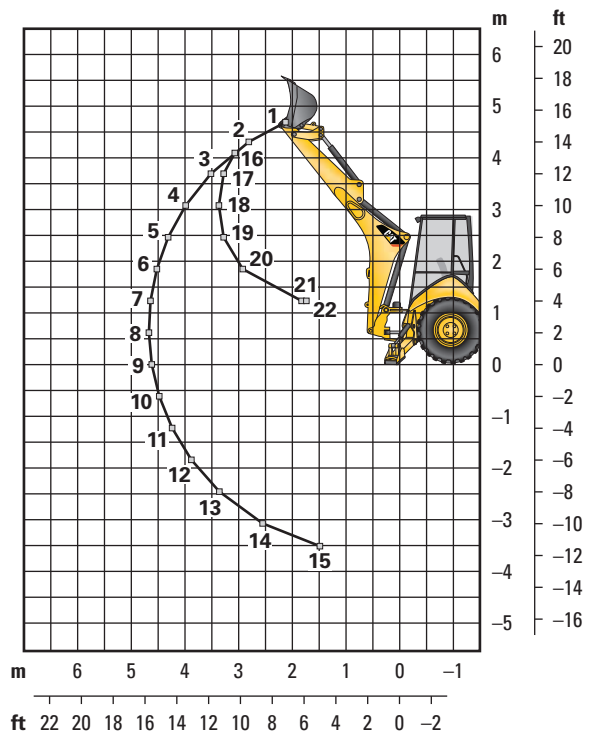
Cat 416F Standard Stick

Boom Lifting		kg	lb
1		1295	2,848
2		1408	3,097
3		1417	3,117
4		1376	3,027
5		1323	2,911
6		1268	2,790
7		1215	2,673
8		1165	2,562
9		1118	2,459
10		1075	2,364
11		1036	2,279
12		1002	2,204
13		977	2,149
14		974	2,143
15		1067	2,348
Stick Lifting		kg	lb
16		1311	2,884
17		1848	4,066
18		2306	5,072
19		2397	5,274
20		2787	6,130
21		5556	12,223



Cat 416F Extendible Stick – Retracted

Boom Lifting		kg	lb
1		1116	2,455
2		1214	2,672
3		1213	2,669
4		1168	2,570
5		1113	2,449
6		1056	2,324
7		1001	2,203
8		949	2,088
9		900	1,981
10		855	1,881
11		813	1,788
12		775	1,705
13		742	1,633
14		724	1,592
15		776	1,707
Stick Lifting		kg	lb
16		1168	2,570
17		1693	3,724
18		2107	4,635
19		2183	4,803
20		2533	5,573
21		4985	10,967
22		5331	11,729



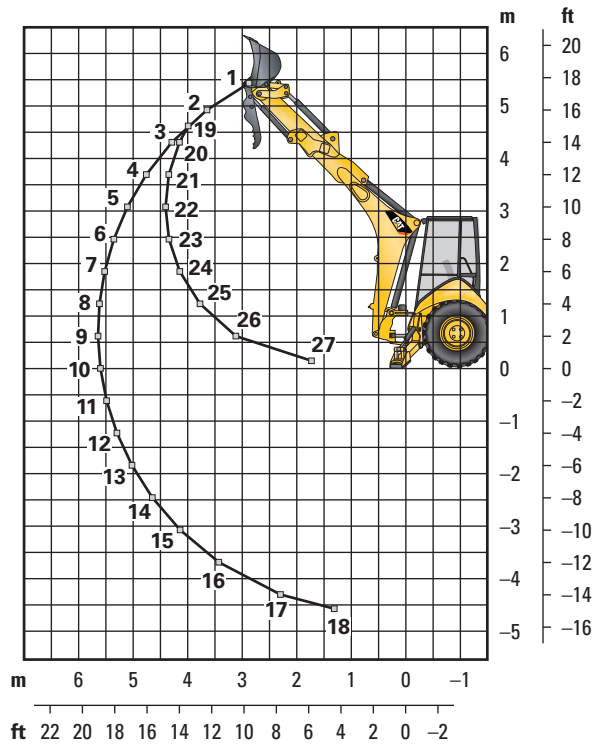
Lift Capacities are over-end values. Machine equipped with 4WD, OROPS, 0.76 m³ (1.00 yd³) general purpose bucket and 116 kg (255 lb) counterweight. Extendible stick includes 460 kg (1,015 lb) counterweight.

416F Backhoe Loader

Backhoe Lift Capacity

Cat 416F Extendible Stick – Extended

Boom Lifting	kg	lb
1	615	1,353
2	749	1,648
3	796	1,752
4	803	1,766
5	792	1,742
6	768	1,689
7	751	1,652
8	727	1,600
9	703	1,547
10	680	1,497
11	659	1,449
12	639	1,405
13	622	1,368
14	609	1,340
15	604	1,329
16	616	1,355
17	705	1,550
18	1042	2,293
Stick Lifting	kg	lb
19	550	1,209
20	733	1,613
21	985	2,166
22	1159	2,551
23	1305	2,870
24	1458	3,207
25	1676	3,688
26	2189	4,816
27	5303	11,666



Lift Capacities are over-end values. Machine equipped with 4WD, OROPS, 0.76 m³ (1.00 yd³) general purpose bucket and 116 kg (255 lb) counterweight. Extendible stick includes 460 kg (1,015 lb) counterweight.

416F Backhoe Loader

Counterweights

Minimum Counterweight Recommendations

Standard Stick

Loader Bucket	Power Train	Weight	
		kg	lb
GP	2WD	240	530
GP	4WD	115	255
MP	2WD/4WD	no counterweight	

Extendible Stick

Loader Bucket	Power Train	Weight	
		kg	lb
GP	2WD/4WD	460	1,015
GP	2WD	240	530
MP	4WD	115	255

Backhoe Buckets

With weld on adapters and pin-on teeth

Standard Duty

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	80	2.8	111	245	3
457	18	120	4.2	122	268	4
610	24	180	6.2	141	291	5
762	30	230	8.1	157	345	5
914	36	290	10.2	176	388	6

Heavy Duty

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	80	2.8	121	266	3
406	16	110	3.9	128	282	3
457	18	120	4.2	135	299	4
610	24	180	6.2	151	333	5
762	30	230	8.1	177	391	5
914	36	290	10.2	201	443	6

Soil Excavation

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
457	18	180	6.4	155	341	4
610	24	240	8.5	182	402	5
762	30	320	11.3	206	454	5
914	36	380	13.4	233	513	6

Heavy Duty Rock

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	70	2.5	127	279	3
457	18	130	4.6	146	322	4
610	24	200	7.0	174	381	5
762	30	270	9.5	197	434	5
914	36	330	11.7	224	493	6

Coral

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	60	2.1	134	295	4
457	18	100	3.5	155	341	6
610	24	140	4.9	182	402	8
762	30	190	6.7	210	463	10

Heavy Duty – Pin Lock

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	96	3.4	113	249	3
406	16	123	4.3	131	288	3
457	18	139	4.9	139	307	4
610	24	207	7.3	168	370	5
762	30	275	9.7	194	428	5
914	36	345	12.2	224	494	6

High Capacity – Pin Lock

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft ³	kg	lb	
305	12	96	4.6	113	287	3
406	16	123	5.6	131	327	3
457	18	139	6.5	139	346	4
610	24	207	9.6	168	414	5
762	30	275	12.9	194	475	5
914	36	345	16.2	224	543	6