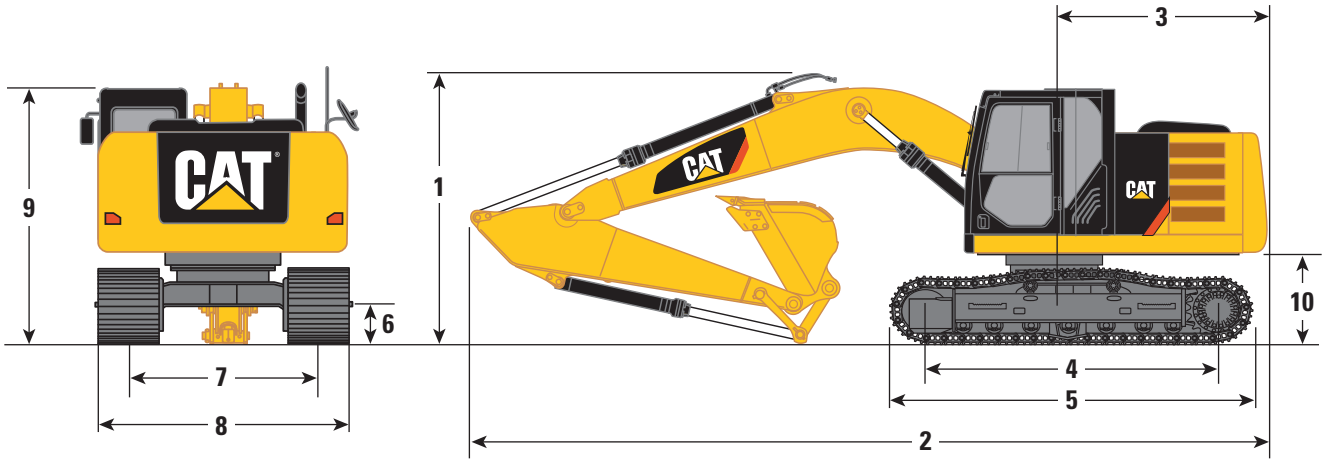
316E L Hydraulic Excavator

Dimensions

All dimensions are approximate.



		Reach Boom 5.1 m			VA Boom	
	Stick	**R2.9**	**R2.6**	**R2.25**	**R2.6**	**R2.25**
1	Shipping Height without Guard Rail*	3090 mm	3090 mm	3090 mm	3090 mm	3090 mm
	Shipping Height at Boom Top	3080 mm	3020 mm	2920 mm	2980 mm	2840 mm
	Shipping Height with Guard Rail	3090 mm	3090 mm	3090 mm	3090 mm	3090 mm
	Shipping Height with Top Guard, without Guard Rail	3100 mm	3100 mm	3100 mm	3100 mm	3100 mm
2	Shipping Length	8580 mm	8570 mm	8550 mm	8630 mm	8640 mm
3	Tail Swing Radius	2500 mm	2500 mm	2500 mm	2500 mm	2500 mm
4	Length to Center of Rollers	3170 mm	3170 mm	3170 mm	3170 mm	3170 mm
5	Track Length	3970 mm	3970 mm	3970 mm	3970 mm	3970 mm
6	Ground Clearance	440 mm	440 mm	440 mm	440 mm	440 mm
7	Track Gauge	1990 mm	1990 mm	1990 mm	1990 mm	1990 mm
8	Transport Width					
	500 mm Shoes	2520 mm	2520 mm	2520 mm	2520 mm	2520 mm
	600 mm Shoes	2590 mm	2590 mm	2590 mm	2590 mm	2590 mm
	700 mm Shoes	2690 mm	2690 mm	2690 mm	2690 mm	2690 mm
9	Cab Height	2890 mm	2890 mm	2890 mm	2890 mm	2890 mm
	Cab Height with Top Guard	3100 mm	3100 mm	3100 mm	3100 mm	3100 mm
10	Counterweight Clearance**	1010 mm	1010 mm	1010 mm	1010 mm	1010 mm
Bucket Capacity		0.76 m^3	0.76 m^3	0.76 m^3	0.76 m^3	0.76 m^3
Bucket Tip Radius		1380 mm	1380 mm	1380 mm	1380 mm	1380 mm

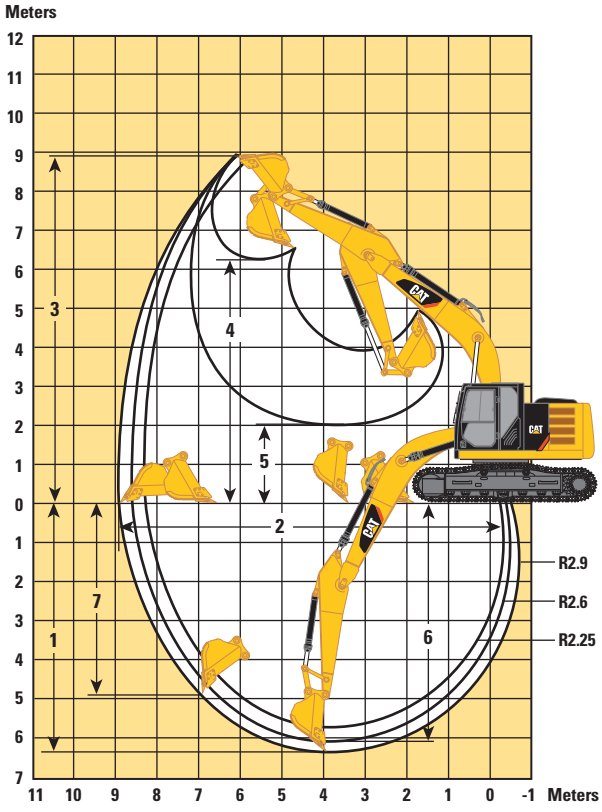
*Including shoe lug height.

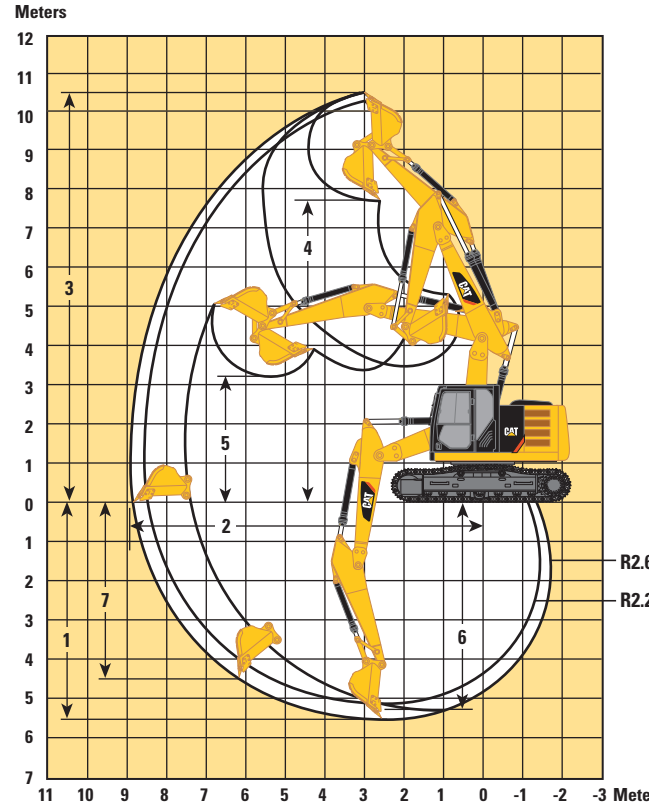
**Without shoe lug height.

316E L Hydraulic Excavator

Working Ranges

All dimensions are approximate.





	Reach Boom 5.1 m			VA Boom	
Stick	**R2.9**	**R2.6**	**R2.25**	**R2.6**	**R2.25**
Maximum Slope	35°/70%	35°/70%	35°/70%	35°/70%	35°/70%
1 Maximum Digging Depth	6390 mm	6090 mm	5740 mm	5510 mm	5170 mm
2 Maximum Reach at Ground Level	8990 mm	8780 mm	8460 mm	8970 mm	8640 mm
3 Maximum Cutting Height	8880 mm	8920 mm	8740 mm	10 560 mm	10 250 mm
4 Maximum Loading Height	6270 mm	6280 mm	6110 mm	7870 mm	7550 mm
5 Minimum Loading Height	2000 mm	2300 mm	2650 mm	3290 mm	3590 mm
6 Maximum Depth Cut for 2440 mm Level Bottom	6160 mm	5870 mm	5500 mm	5390 mm	5030 mm
7 Maximum Vertical Wall Digging Depth	4910 mm	4930 mm	4490 mm	4480 mm	4100 mm
Bucket Capacity	0.76 m^3	0.76 m^3	0.76 m^3	0.76 m^3	0.76 m^3
Bucket Tip Radius	1380 mm	1380 mm	1380 mm	1380 mm	1380 mm

316E L Hydraulic Excavator

Operating Weight and Ground Pressure

	700 mm Triple Grouser Shoes		600 mm Triple Grouser Shoes		500 mm Triple Grouser Shoes	
	kg	kPa	kg	kPa	kg	kPa
Reach Boom – 5.1 m						
R2.9	17 800	36	17 600	42	17 300	49
R2.6	17 700	36	17 500	41	17 300	49
R2.25	17 700	36	17 500	41	17 200	49
VA Boom						
R2.6	18 700	38	18 500	44	18 200	52
R2.25	18 660	38	18 400	44	18 200	52

All weights are rounded up to nearest 100 kg including General Duty 0.76 m^3 bucket (610 kg).

Actual weight will depend on final machine configuration.

Major Component Weights

	kg
Base Machine (with boom cylinder, without counterweight, front linkage and track)	5720
Long Undercarriage	3770
Counterweight – 2.8 mt	2800
Boom (includes lines, pins and stick cylinder)	
Reach Boom – 5.1 m	1320
VA Boom	1850
Stick (includes lines, pins, bucket cylinder, and bucket linkage)	
R2.9	910
R2.6	840
R2.25	810
Track Shoe (Long/per two tracks)	
500 mm Triple Grouser	2190
600 mm Triple Grouser	2420
700 mm Triple Grouser	2650

All weights are rounded up to nearest 10 kg except for buckets. Kg was rounded up separately so some of the kg do not match.

Base machine includes 75 kg operator weight, 90% fuel weight, and undercarriage with center guard.

Actual weight will depend on final machine configuration.

Bucket and Stick Forces

		Reach Boom 5.1 m		VA Boom	
Stick	**R2.9**	**R2.6**	**R2.25**	**R2.6**	**R2.25**
	kN	**kN**	**kN**	**kN**	**kN**
General Duty					
Bucket Digging Force (ISO)	111	111	111	135	135
Stick Digging Force (ISO)	75	80	88	80	88
Severe Duty					
Bucket Digging Force (ISO)	111	111	111	134	134
Stick Digging Force (ISO)	75	80	88	80	88
CW-30					
General Duty					
Bucket Digging Force (ISO)	101	101	101	123	123
Stick Digging Force (ISO)	73	78	85	78	85
Heavy Duty					
Bucket Digging Force (ISO)	101	101	101	123	123
Stick Digging Force (ISO)	73	77	85	77	85
CW-30S					
General Duty					
Bucket Digging Force (ISO)	100	100	100	121	121
Stick Digging Force (ISO)	72	77	85	77	85
Heavy Duty					
Bucket Digging Force (ISO)	101	101	101	123	123
Stick Digging Force (ISO)	73	77	85	77	85

316E L Hydraulic Excavator

Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 5.1 m
Stick – R2.9
Counterweight – 2.8 mt
Shoes – 500 mm triple grouser
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*2950	*2950	5.08
6.0 m	kg							*3650	3350			*2650	*2650	6.43
4.5 m	kg							*4050	3300			*2550	2400	7.23
3.0 m	kg			*8000	*8000	*5500	4800	*4600	3150	*3300	2200	*2650	2150	7.66
1.5 m	kg			*7100	*7100	*6900	4450	4850	3000	3500	2150	*2850	2050	7.77
Ground Line	kg			*7050	*7050	7300	4200	4750	2850	3450	2100	*3200	2050	7.58
–1.5 m	kg	*5700	*5700	*10 100	7550	7200	4100	4650	2800			3700	2250	7.07
–3.0 m	kg	*9300	*9300	*11 100	7650	7200	4150	4700	2800			4550	2750	6.16
–4.5 m	kg			*8550	7950	*5700	4350					*5550	4200	4.60

Boom – 5.1 m
Stick – R2.9
Counterweight – 2.8 mt
Shoes – 700 mm triple grouser with step
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*2950	*2950	5.08
6.0 m	kg							*3650	3450			*2650	*2650	6.43
4.5 m	kg							*4050	3350			*2550	2500	7.23
3.0 m	kg			*8000	*8000	*5500	4950	*4600	3200	*3300	2300	*2650	2200	7.66
1.5 m	kg			*7100	*7100	*6900	4550	5000	3050	3600	2200	*2850	2100	7.77
Ground Line	kg			*7050	*7050	7500	4300	4850	2950	3500	2150	*3200	2100	7.58
–1.5 m	kg	*5700	*5700	*10 100	7750	7350	4200	4800	2850			3800	2300	7.07
–3.0 m	kg	*9300	*9300	*11 100	7850	7400	4250	4800	2900			4650	2800	6.16
–4.5 m	kg			*8550	8100	*5700	4450					*5550	4300	4.60

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays within ± 5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

316E L Hydraulic Excavator

Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 5.1 m
Stick – R2.6
Counterweight – 2.8 mt
Shoes – 500 mm triple grouser
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*3250	*3250	4.76
6.0 m	kg							*3500	3300			*2850	*2850	6.18
4.5 m	kg					*4600	*4600	*4300	3300			*2750	2550	7.01
3.0 m	kg			*8850	8750	*5900	4800	*4800	3150			*2800	2250	7.44
1.5 m	kg					*7200	4450	4900	3000	*3400	2150	*3000	2150	7.56
Ground Line	kg			*6250	*6250	7300	4250	4750	2900			*3400	2200	7.36
–1.5 m	kg	*5750	*5750	*10 150	7650	7250	4150	4700	2850			3900	2400	6.84
–3.0 m	kg	*9950	*9950	*10 750	7800	7300	4200					4900	2950	5.89
–4.5 m	kg			*7750	*7750							*5400	4850	4.23

Boom – 5.1 m
Stick – R2.6
Counterweight – 2.8 mt
Shoes – 700 mm triple grouser with step
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*3250	*3250	4.76
6.0 m	kg							*3500	3400			*2850	*2850	6.18
4.5 m	kg					*4600	*4600	*4300	3350			*2750	2600	7.01
3.0 m	kg			*8850	*8850	*5900	4900	*4800	3200			*2800	2300	7.44
1.5 m	kg					*7200	4550	5000	3050	*3400	2250	*3000	2200	7.56
Ground Line	kg			*6250	*6250	7500	4350	4900	2950			*3400	2250	7.36
–1.5 m	kg	*5750	*5750	*10 150	7850	7450	4300	4800	2900			4050	2450	6.84
–3.0 m	kg	*9950	*9950	*10 750	8000	*7450	4350					5000	3050	5.89
–4.5 m	kg			*7750	*7750							*5400	4950	4.23

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays within ± 5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

316E L Hydraulic Excavator

Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 5.1 m
Stick – R2.25
Counterweight – 2.8 mt
Shoes – 500 mm triple grouser
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*3950	*3950	4.23
6.0 m	kg											*3400	*3400	5.79
4.5 m	kg					*5000	*5000	*4600	3250			*3250	2750	6.67
3.0 m	kg					*6250	4700	5000	3100			*3350	2400	7.12
1.5 m	kg					*7450	4400	4850	3000			*3550	2300	7.24
Ground Line	kg			*5600	*5600	7300	4250	4750	2900			3800	2350	7.04
–1.5 m	kg	*6100	*6100	*10 800	7700	7250	4200	4700	2850			4250	2600	6.49
–3.0 m	kg			*10 150	7850	*7150	4250					5450	3300	5.48

Boom – 5.1 m
Stick – R2.25
Counterweight – 2.8 mt
Shoes – 700 mm triple grouser with step
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*3950	*3950	4.23
6.0 m	kg											*3400	*3400	5.79
4.5 m	kg					*5000	*5000	*4600	3300			*3250	2800	6.67
3.0 m	kg					*6250	4850	*5050	3200			*3350	2450	7.12
1.5 m	kg					*7450	4500	5000	3050			*3550	2350	7.24
Ground Line	kg			*5600	*5600	7500	4350	4900	2950			3900	2400	7.04
–1.5 m	kg	*6100	*6100	*10 800	7900	7450	4300	4850	2950			4350	2650	6.49
–3.0 m	kg			*10 150	8050	*7150	4400					*5550	3400	5.48

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays within ± 5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

316E L Hydraulic Excavator

Variable Angle Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 2.6 m (Stub), 2.6 m (Fore)
Stick – R2.6
Counterweight – 2.8 mt
Shoes – 500 mm triple grouser
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
9.0 m	kg											*5300	*5300	2.24
7.5 m	kg			*5350	*5350	*3450	*3450					*3450	*3450	5.05
6.0 m	kg			*4800	*4800	*3950	*3950	*3000	*3000			*3000	2900	6.41
4.5 m	kg			*5950	*5950	*4150	*4150	*3000	*3000			*2900	2350	7.21
3.0 m	kg	*14 550	*14 550	*6500	*6500	*5300	4700	*3450	3050	*2950	2150	*2900	2050	7.63
1.5 m	kg			*6800	*6800	*7100	4300	*4800	2900	*3250	2050	*3050	1950	7.74
Ground Line	kg	*5150	*5150	*5450	*5450	7250	4050	*4600	2750	*3400	2050	*3300	2000	7.55
–1.5 m	kg	*7400	*7400	*9200	7400	7150	4000	4650	2700			3750	2200	7.04
–3.0 m	kg	*13 050	*13 050	*9050	7600	*5700	4100					*4250	2850	5.89

Boom – 2.6 m (Stub), 2.6 m (Fore)
Stick – R2.25
Counterweight – 2.8 mt
Shoes – 500 mm triple grouser
Bucket – None

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg			*5900	*5900	*4200	*4200					*4100	*4100	4.52
6.0 m	kg			*5700	*5700	*3550	*3550	*3550	3200			*3500	3200	6.00
4.5 m	kg			*6700	*6700	*4650	*4650	*3450	3200			*3350	2550	6.85
3.0 m	kg			*7300	*7300	*5850	4650	*3600	3050			*3350	2200	7.30
1.5 m	kg			*6650	*6650	7450	4250	*4300	2850			*3500	2100	7.41
Ground Line	kg	*6500	*6500	*5850	*5850	7250	4050	4700	2750			3650	2150	7.22
–1.5 m	kg	*9100	*9100	*8950	7500	7200	4050	4700	2750			4050	2400	6.68
–3.0 m	kg	*16 050	*16 050	*9050	7700	*5800	4150					*4850	3350	5.30

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays within ± 5% for all available track shoes.

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316E L Hydraulic Excavator

Work Tool Offering Guide*

Boom Type	Reach Boom			VA Boom	
Stick Size	**R2.9**	**R2.6**	**R2.25**	**R2.6**	**R2.25**
Hydraulic Hammer	H110Es H115Es H120Es	H110Es H115Es H120Es	H110Es H115Es H120Es	H110Es H115Es H120Es***	H110Es H115Es H120Es***
Multi-Processor	—	—	MP15***	—	—
Crusher	P315	P315	P315	—	—
Pulverizer	P215	P215	P215	—	—
Demolition and Sorting Grapple	G310B	G310B —	G310B G315B***	G310B —	G310B —
Mobile Scrap and Demolition Shear	S325**	S325B**	S325B**	—	—
Compactor (Vibratory Plate)	CVP75	CVP75	CVP75	CVP75	CVP75
Contractors' Grapple	G115B	G115B	G115B	G115B	G115B
Orange Peel Grapple	These work tools are available for the 316E L. Consult your Cat dealer for proper match.				
Trash Grapple					
Thumbs					
Rakes					
Center-Lock Pin Grabber Coupler					
Dedicated Quick Coupler					

*Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

**Boom mount.

***Pin-on only.

316E L Hydraulic Excavator

Bucket Specifications and Compatibility

	Width	Capacity	Weight	Fill	Reach Boom			VA Boom	
	mm	m^3	kg	%	R2.9	R2.6	R2.25	R2.6	R2.25
Without Quick Coupler									
General Duty (GD)	1100	0.80	601	100%	⦿	●	●	⦿	⦿
	1300	1.00	682	100%	X	X	X	X	X
	1400	1.09	712	100%	X	X	X	X	X
Severe Duty (SD)	1200	0.91	722	90%	⊖	⦿	⦿	⊖	⊖
Maximum load pin-on (payload + bucket)				kg	2095	2205	2375	1965	2120
With Quick Coupler (CW 30/CW30s)									
General Duty (GD)	600	0.35	431	100%	●	●	●	●	●
	750	0.49	464	100%	●	●	●	●	●
	900	0.62	524	100%	●	●	●	⦿	●
	1100	0.79	583	100%	⊖	⦿	⦿	⊖	⊖
	1200	0.91	633	100%	○	⊖	⊖	○	○
	1300	1.00	663	100%	○	○	⊖	◇	○
	1400	1.09	693	100%	X	X	X	X	X
Heavy Duty (HD)	1200	0.91	649	100%	○	⊖	⊖	○	○
	1300	1.00	681	100%	○	○	⊖	◇	○
	1400	1.09	712	100%	X	X	X	X	X
Maximum load with coupler (payload + bucket)				kg	1875	1985	2155	1745	1900

Maximum Material Density:

- ● 2100 kg/m^3
- ⦿ 1800 kg/m^3
- ⊖ 1500 kg/m^3
- ○ 1200 kg/m^3
- ◇ 900 kg/m^3
- X Not Recommended

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.