

# 303.5E CR, 304E CR, 305E CR, 305.5E CR

**CAT**<sup>®</sup>

Mini Hydraulic Excavators



	303.5E CR	304E CR	305E CR	305.5E CR
<b>Engine</b>				
Engine Model	Cat <sup>®</sup> C1.8	Cat <sup>®</sup> C2.4	Cat <sup>®</sup> C2.4	Cat <sup>®</sup> C2.4
Net Power (ISO 9249)	23.6 kW (31.6 hp)	30 kW (40.2 hp)	30 kW (40.2 hp)	32.9 kW (44.2 hp)
<b>Weights</b>				
Operating Weight with Canopy	3508 kg (7,734 lb)	3854 kg (8,497 lb)	4915 kg (10,836 lb)	5270 kg (11,618 lb)
Operating Weight with Cab	3692 kg (8,139 lb)	4009 kg (8,838 lb)	5088 kg (11,217 lb)	5415 kg (11,938 lb)
<b>Operating Specifications</b>				
Maximum Dig Depth	3180 mm (10'4")	3430 mm (11'3")	3670 mm (12'1")	3870 mm (12'8")

# 303.5E CR, 304E CR, 305E CR, 305.5E CR Specifications

Engine		
Engine Model		
303.5E CR	Cat® C1.8	
304E CR/305E CR/305.5E CR	Cat® C2.4	
Rated Net Power (ISO 9249)		
303.5E CR	23.6 kW	31.6 hp
304E CR/305E CR	30 kW	40.2 hp
305.5E CR	32.9 kW	44.2 hp
Gross Power		
303.5E CR	24.8 kW	33.3 hp
304E CR/305E CR	31.2 kW	41.8 hp
305.5E CR	34.1 kW	45.7 hp
Bore	87 mm	3.4 in
Stroke	102.4 mm	4 in
Displacement		
303.5E CR/304E CR	1.8 L	110 in <sup>3</sup>
305E CR/305.5E CR	2.4 L	146 in <sup>3</sup>

Weights*		
Operating Weight with Canopy		
303.5E CR	3508 kg	7,734 lb
304E CR	3854 kg	8,497 lb
305E CR	4915 kg	10,836 lb
305.5E CR	5270 kg	11,618 lb
Operating Weight with Cab		
303.5E CR	3692 kg	8,139 lb
304E CR	4009 kg	8,838 lb
305E CR	5088 kg	11,217 lb
305.5E CR	5415 kg	11,938 lb

\* Weight includes rubber tracks, bucket, operator, full fuel and auxiliary lines.

Travel System		
Travel Speed – High	4.6 km/h	2.8 mph
Travel Speed – Low		
303.5E CR/304E CR/305E CR	2.6 km/h	1.6 mph
305.5E CR	2.8 km/h	1.7 mph
Maximum Traction Force – High Speed		
303.5E CR	16.9 kN	3,799 lb
304E CR	16.8 kN	3,777 lb
305E CR	24.1 kN	5,418 lb
305.5E CR	26.8 kN	6,025 lb
Maximum Traction Force – Low Speed		
303.5E CR	31 kN	6,969 lb
304E CR	30.8 kN	6,921 lb
305E CR	45.2 kN	10,161 lb
305.5E CR	47.8 kN	10,745 lb
Ground Pressure		
303.5E CR	32.1 kPa	4.7 psi
304E CR	29.1 kPa	4.2 psi
305E CR	28.2 kPa	4.1 psi
305.5E CR	30 kPa	4.4 psi

Service Refill Capacities		
Cooling System		
303.5E CR/304E CR	5.5 L	1.5 gal
305E CR/305.5E CR	10.5 L	2.8 gal
Engine Oil		
303.5E CR/304E CR	7.0 L	1.8 gal
305E CR/305.5E CR	9.5 L	2.5 gal
Fuel Tank		
303.5E CR/304E CR	46 L	12.2 gal
305E CR/305.5E CR	63 L	16.6 gal
Hydraulic Tank		
303.5E CR/304E CR	42.3 L	11.2 gal
305E CR/305.5E CR	68.3 L	18 gal
Hydraulic System		
303.5E CR/304E CR	65 L	17.2 gal
305E CR/305.5E CR	78 L	20.6 gal

## Hydraulic System\*

Pump Flow at 2,400 rpm		
303.5E CR/304E CR	87.6 L/min	23.1 gal/min
305E CR	119.3 L/min	31.5 gal/min
305.5E CR	129.6 L/min	34.2 gal/min
Operating Pressure – Equipment		
	245 bar	3,553 psi
Operating Pressure – Travel		
	245 bar	3,553 psi
Operating Pressure – Swing		
303.5E CR/304E CR	181 bar	2,625 psi
305E CR/305.5E CR	185 bar	2,690 psi
Auxiliary Circuit – Primary (186 bar/2,734 psi)		
303.5E CR/304E CR	60 L/min	15.9 gal/min
305E CR/305.5E CR	70 L/min	18.5 gal/min
Auxiliary Circuit – Secondary (174 bar/2,524 psi)		
303.5E CR/304E CR	27 L/min	7.1 gal/min
305E CR/305.5E CR	38 L/min	10 gal/min
Digging Force = Stick (standard)		
303.5E CR	18.9 kN	4,249 lb
304E CR	21.6 kN	4,856 lb
305E CR	24.7 kN	5,550 lb
305.5E CR	28.9 kN	6,500 lb
Digging Force = Stick (long)		
303.5E CR	16.9 kN	3,799 lb
304E CR	19.5 kN	4,384 lb
305E CR	21.3 kN	4,788 lb
305.5E CR	24.8 kN	5,575 lb
Digging Force = Bucket		
303.5E CR	33.0 kN	7,419 lb
304E CR	37.8 kN	8,498 lb
305E CR	44.7 kN	10,050 lb
305.5E CR	50.9 kN	11,445 lb

\* Load sensing hydraulics with variable displacement piston pump.

## Swing System

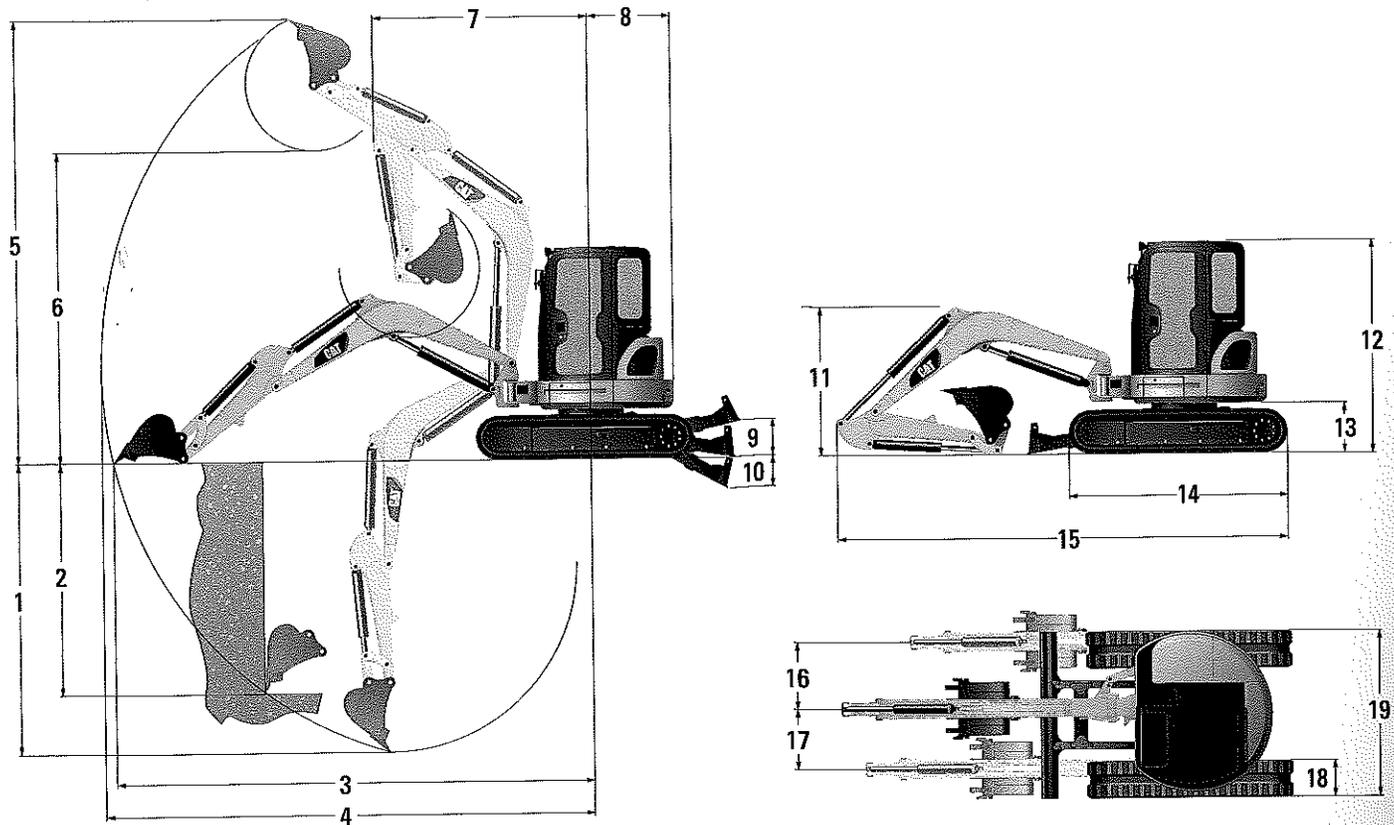
Machine Swing Speed	9 rpm
Boom Swing – Left (without stop)	
303.5E CR/305E CR/305.5E CR	80°
304E CR	70°
Boom Swing – Left (with stop)	
303.5E CR/304E CR	55°
305E CR/305.5E CR	60°
Swing – Right	
	50°

## Blade

Width		
303.5E CR	1780 mm	70 in
304E CR	1950 mm	76.8 in
305E CR/305.5E CR	1980 mm	78 in
Height		
303.5E CR/304E CR	325 mm	12.8 in
305E CR/305.5E CR	375 mm	14.8 in
Dig Depth		
303.5E CR/304E CR	470 mm	18.5 in
305E CR/305.5E CR	540 mm	21.3 in
Lift Height		
303.5E CR/304E CR	400 mm	15.7 in
305E CR/305.5E CR	420 mm	16.5 in

# 303.5E CR, 304E CR, 305E CR, 305.5E CR Specifications

## 303.5E CR Dimensions



	Standard Stick		Long Stick	
1	2880 mm	9'6"	3180 mm	10'4"
2	2320 mm	7'8"	2470 mm	8'2"
3	5060 mm	16'8"	5320 mm	17'6"
4	5200 mm	17'1"	5440 mm	17'10"
5	4920 mm	16'2"	5030 mm	16'6"
6	3520 mm	11'6"	3640 mm	11'11"
7	2060 mm	6'9"	2180 mm	7'2"
8	890 mm	2'11"	890 mm	2'11"
9	400 mm	1'4"	400 mm	1'4"
10	470 mm	1'7"	470 mm	1'7"

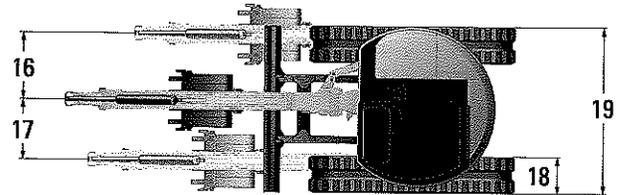
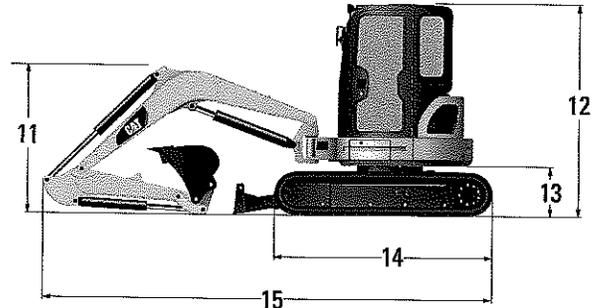
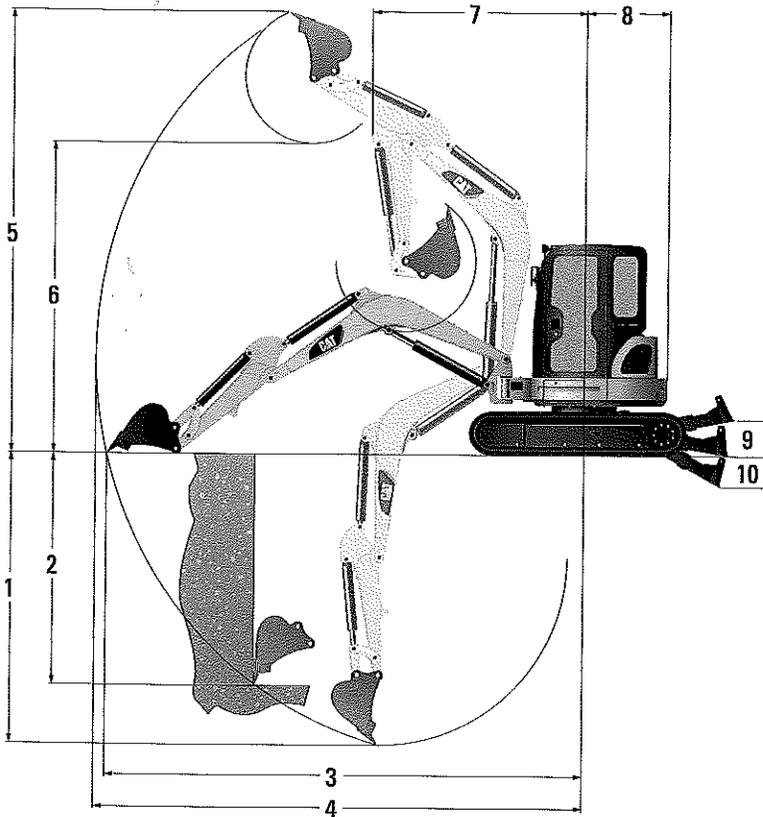
	Standard Stick		Long Stick	
11	1420 mm	4'8"	1650 mm	5'4"
12	2500 mm	8'2"	2500 mm	8'2"
13	565 mm	1'10"	565 mm	1'10"
14	2220 mm	7'3"	2220 mm	7'3"
15	4730 mm	15'6"	4790 mm	15'9"
16	765 mm	2'6"	765 mm	2'6"
17	670 mm	2'2"	670 mm	2'2"
18	300 mm	1'0"	300 mm	1'0"
19	1780 mm	5'10"	1780 mm	5'10"

## 303.5E CR Lift Capacities at Ground Level\*

Lift Point Radius		3000 mm (9'8")		4000 mm (13'1")	
		Front	Side	Front	Side
Blade Down	kg	1370	740	880	470
	lb	2,940	1,590	1,890	1,010
Blade Up	kg	770	680	490	440
	lb	1,698	1,499	1,080	970

\* The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

## 304E CR Dimensions



	Standard Stick		Long Stick	
1	3130 mm	10'3"	3430 mm	11'3"
2	2420 mm	8'0"	2560 mm	8'5"
3	5220 mm	17'1"	5470 mm	18'0"
4	5350 mm	17'7"	5590 mm	18'4"
5	4980 mm	16'5"	5070 mm	16'8"
6	3590 mm	11'9"	3690 mm	12'1"
7	2110 mm	6'11"	2220 mm	7'3"
8	975 mm	3'2"	975 mm	3'2"
9	400 mm	1'4"	400 mm	1'4"
10	470 mm	1'7"	470 mm	1'7"

	Standard Stick		Long Stick	
11	1480 mm	4'10"	1770 mm	5'9"
12	2500 mm	8'2"	2500 mm	8'2"
13	565 mm	1'10"	565 mm	1'10"
14	2220 mm	7'3"	2220 mm	7'3"
15	4820 mm	15'10"	4930 mm	16'2"
16	735 mm	2'5"	735 mm	2'5"
17	670 mm	2'2"	670 mm	2'2"
18	350 mm	1'1"	350 mm	1'1"
19	1950 mm	6'5"	1950 mm	6'5"

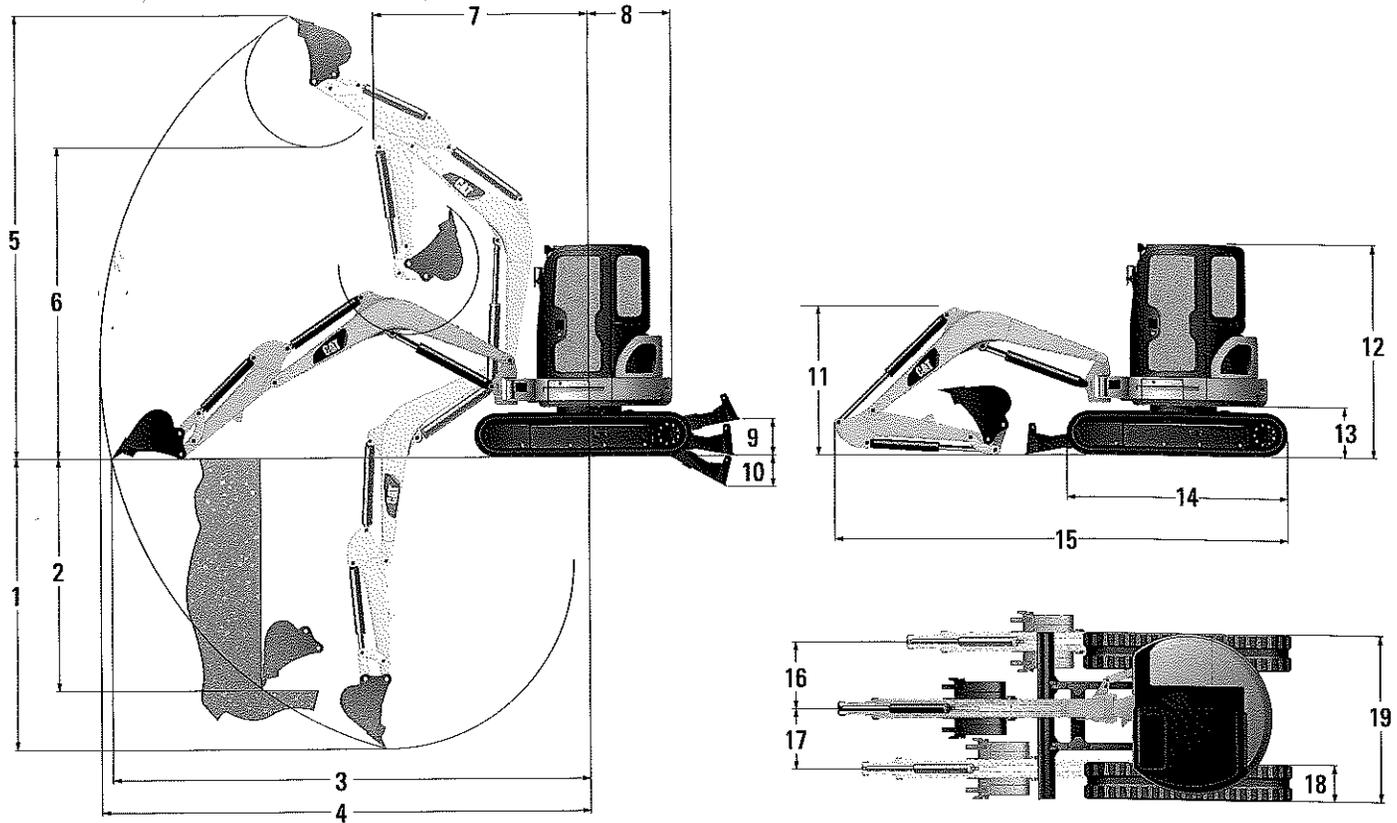
## 304E CR Lift Capacities at Ground Level\*

Lift Point Radius		3000 mm (9'8")		4500 mm (14'9")	
		Front	Side	Front	Side
Blade Down	kg	1610	920	1040	590
	lb	3,549	2,028	2,292	1,301
Blade Up	kg	830	830	530	530
	lb	1,830	1,830	1,168	1,168

\* The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

# 303.5E CR, 304E CR, 305E CR, 305.5E CR Specifications

## 305E CR Dimensions



	Standard Stick		Long Stick	
1	3280 mm	10'9"	3670 mm	12'1"
2	2320 mm	7'7"	2630 mm	8'8"
3	5430 mm	17'10"	5810 mm	19'1"
4	5600 mm	18'5"	5960 mm	19'7"
5	5250 mm	17'3"	5440 mm	17'10"
6	3720 mm	12'2"	3920 mm	12'10"
7	2350 mm	7'8"	2530 mm	8'3"
8	1100 mm	3'7"	1100 mm	3'7"
9	405 mm	1'4"	405 mm	1'4"
10	555 mm	1'10"	555 mm	1'10"

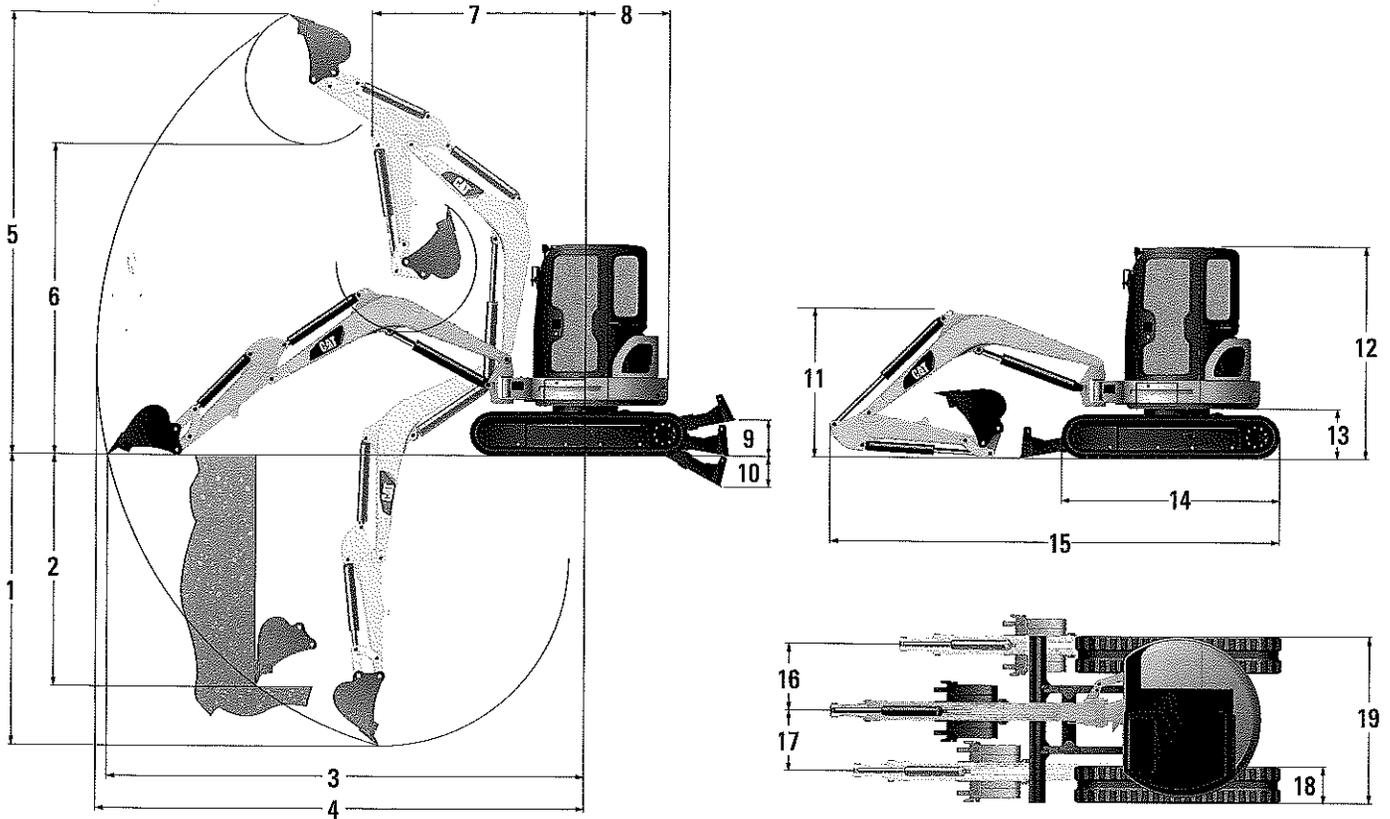
	Standard Stick		Long Stick	
11	1750 mm	5'9"	2150 mm	7'0"
12	2550 mm	8'4"	2550 mm	8'4"
13	615 mm	2'0"	615 mm	2'0"
14	2580 mm	8'5"	2580 mm	8'5"
15	5180 mm	17'0"	5290 mm	17'4"
16	785 mm	2'7"	785 mm	2'7"
17	695 mm	2'3"	695 mm	2'3"
18	400 mm	1'4"	400 mm	1'4"
19	1980 mm	6'6"	1980 mm	6'6"

## 305E CR Lift Capacities at Ground Level\*

Lift Point Radius		3000 mm (9'8")		4500 mm (14'9")	
		Front	Side	Front	Side
Blade Down	kg	2340	1200	1260	640
	lb	5,159	2,646	2,778	1,411
Blade Up	kg	1450	1070	760	570
	lb	3,197	2,359	1,676	1,257

\* The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

## 305.5E CR Dimensions



	Standard Stick		Long Stick	
<b>1</b>	3470 mm	11'4"	3870 mm	12'8"
<b>2</b>	2330 mm	7'8"	2730 mm	9'0"
<b>3</b>	5630 mm	18'6"	6020 mm	19'9"
<b>4</b>	5790 mm	19'0"	6170 mm	20'3"
<b>5</b>	5330 mm	17'6"	5590 mm	18'4"
<b>6</b>	3820 mm	12'7"	4080 mm	13'4"
<b>7</b>	2400 mm	7'10"	2530 mm	8'3"
<b>8</b>	1130 mm	3'8"	1130 mm	3'8"
<b>9</b>	405 mm	1'4"	405 mm	1'4"
<b>10</b>	555 mm	1'10"	555 mm	1'10"

	Standard Stick		Long Stick	
<b>11</b>	1740 mm	5'8"	2150 mm	6'11"
<b>12</b>	2550 mm	8'4"	2550 mm	8'4"
<b>13</b>	615 mm	2'0"	615 mm	2'0"
<b>14</b>	2580 mm	8'6"	2580 mm	8'6"
<b>15</b>	5330 mm	17'6"	5460 mm	17'10"
<b>16</b>	785 mm	2'7"	785 mm	2'7"
<b>17</b>	695 mm	2'3"	695 mm	2'3"
<b>18</b>	400 mm	1'4"	400 mm	1'4"
<b>19</b>	1980 mm	6'6"	1980 mm	6'6"

## 305.5E CR Lift Capacities at Ground Level\*

Lift Point Radius		3000 mm (9'8")		4500 mm (14'9")	
		Front	Side	Front	Side
Blade Down	kg	2590	1290	1380	690
	lb	5,710	2,844	3,042	1,521
Blade Up	kg	1550	1150	820	620
	lb	3,417	2,535	1,808	1,367

\* The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

# 303.5E CR, 304E CR, 305E CR, 305.5E CR Standard Equipment

## Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

- 1-way and 2-way (combined function) auxiliary hydraulic lines
- Adjustable auxiliary flow control for work tools
- Adjustable wrist rests
- Alternator
- Anti-theft security system
- Automatic engine idle
- Automatic swing park brake
- Automatic two speed travel
- Auxiliary line quick disconnects
- Boom cylinder guard
- Cab mounted work light
- Canopy with FOPS ISO 10262 (Level 1) and Tip-Over Protection (TOPS) ISO 12117
- Coat hook
- COMPASS display panel
- Cup holder
- Continuous flow
- Control pattern changer (not available in Europe)
- Dozer blade with float function
- Economy mode setting for up to 20% fuel savings
- Floor mat
- Foot travel pedals
- Gauges or indicators for fuel level engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs, service interval
- Horn
- Hydraulic oil cooler
- Lifting eye on bucket linkage (standard equipment for all regions except Europe)
- Lockable storage box
- Low maintenance linkage pin joints
- Maintenance free battery
- Rubber track
- Retractable seatbelt
- Standard stick
- Suspension seat, vinyl covered
- "Thumb Ready" sticks (standard equipment for all regions except Europe)
- Travel alarm (optional in Europe)

# 303.5E CR, 304E CR, 305E CR, 305.5E CR Optional Equipment

## Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

- Air conditioning
- Angle dozer blade with float function
- Beacon socket for canopy machines
- Boom check valve (Europe only)
- Boom mounted light
- Cab, radio ready with FOPS ISO 10262 (Level 1) and Tip-Over Protection (TOPS) ISO 12117 with heater/defroster, interior light and windshield wiper/washer
- Ecology drain valve for hydraulic tank
- High back suspension seat, fabric covered
- Hydraulic quick coupler lines
- Lifting eye on bucket linkage (optional in Europe, standard for all other regions)
- Long stick
- Mechanical quick coupler
- Mirrors for cab and canopy
- Seatbelt, 75 mm (3 in) wide (optional in Europe, standard in all other regions)
- Secondary auxiliary hydraulic lines
- Steel track and steel track with rubber pads

# 312E

Hydraulic Excavator



<b>Engine</b>			<b>Drive</b>		
Engine Model	Cat® C4.4 ACERT™		Maximum Travel Speed	5.5 km/h	3.4 mph
Net Power – SAE J1349	68 kW	91 hp	Maximum Drawbar Pull	114 kN	25,628 lbf
Gross Power – SAE J1995	71 kW	95 hp	<b>Weight</b>		
			Minimum Operating Weight	13 500 kg	29,770 lb
			Maximum Operating Weight	15 000 kg	33,080 lb

# 312E Hydraulic Excavator Specifications

## Engine

Engine Model	Cat® C4.4 ACERT™	
Net Power – SAE J1349	68 kW	91 hp
Gross Power – SAE J1995	71 kW	95 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5.00 in
Displacement	4.4 L	269 in <sup>3</sup>

## Weights

Minimum Operating Weight\* 13 500 kg 29,770 lb

Maximum Operating Weight\*\* 15 000 kg 33,080 lb

\*4.65 m (15'3") boom, 2.5 m (8'10") stick, 2.2 mt (2.4 t) counterweight, 0.65 m<sup>3</sup> (0.84 yd<sup>3</sup>) bucket, and 500 mm (20") shoes.

\*\*4.65 m (15'3") boom, 3.0 m (9'10") stick, 2.2 mt (2.4 t) counterweight, 0.65 m<sup>3</sup> (0.84 yd<sup>3</sup>) bucket, 770 mm (30") shoes with blade.

## Hydraulic System

Main System – Maximum Flow (Total)	254 L/min	67 gal/min
Swing System – Maximum Flow	127 L/min	34 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,424 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	23 000 kPa	3,336 psi
Pilot System – Maximum Flow	21.9 L/min	5.8 gal/min
Pilot System – Maximum Pressure	4120 kPa	598 psi
Boom Cylinder – Bore	110 mm	4 in
Boom Cylinder – Stroke	1015 mm	40 in
Stick Cylinder – Bore	120 mm	5 in
Stick Cylinder – Stroke	1197 mm	47 in
Bucket Cylinder – Bore	100 mm	4 in
Bucket Cylinder – Stroke	939 mm	37 in

## Drive

Maximum Travel Speed	5.5 km/h	3.4 mph
Maximum Drawbar Pull	114 kN	25,628 lbf

## Swing Mechanism

Swing Speed	11.5 rpm
Swing Torque	30.9 kN·m 22,791 lb ft

## Service Refill Capacities

Fuel Tank Capacity	250 L	66.04 gal
Cooling System	22 L	5.81 gal
Engine Oil (with filter)	13.5 L	3.57 gal
Swing Drive	2.4 L	0.63 gal
Final Drive (each)	3 L	0.79 gal
Hydraulic System (including tank)	164 L	43.32 gal
Hydraulic Tank	90.6 L	23.93 gal

## Track

Number of Shoes (each side)

Long Undercarriage 46 pieces

Number of Track Rollers (each side)

Long Undercarriage 7 pieces

Number of Carrier Rollers (each side)

Long Undercarriage 2 pieces

## Sound Performance

Operator Noise (Closed) – ISO 6396 69 dB(A)

Spectator Noise – ISO 6395 100 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

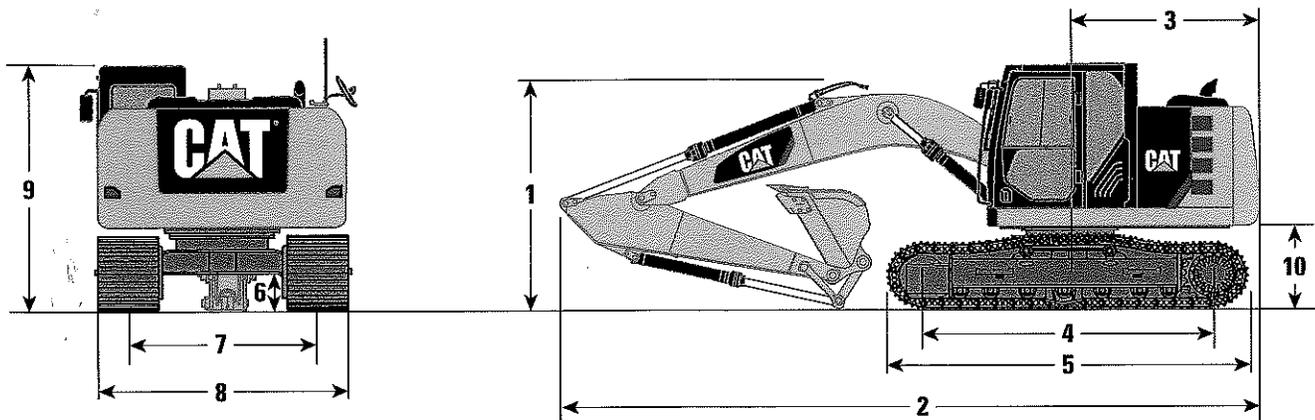
## Standards

Brakes	ISO 10265 2008
ROPS Cab	ISO 12117-2
Cab/OPG	ISO 10262 1998

# 312E Hydraulic Excavator Specifications

## Dimensions

All dimensions are approximate.



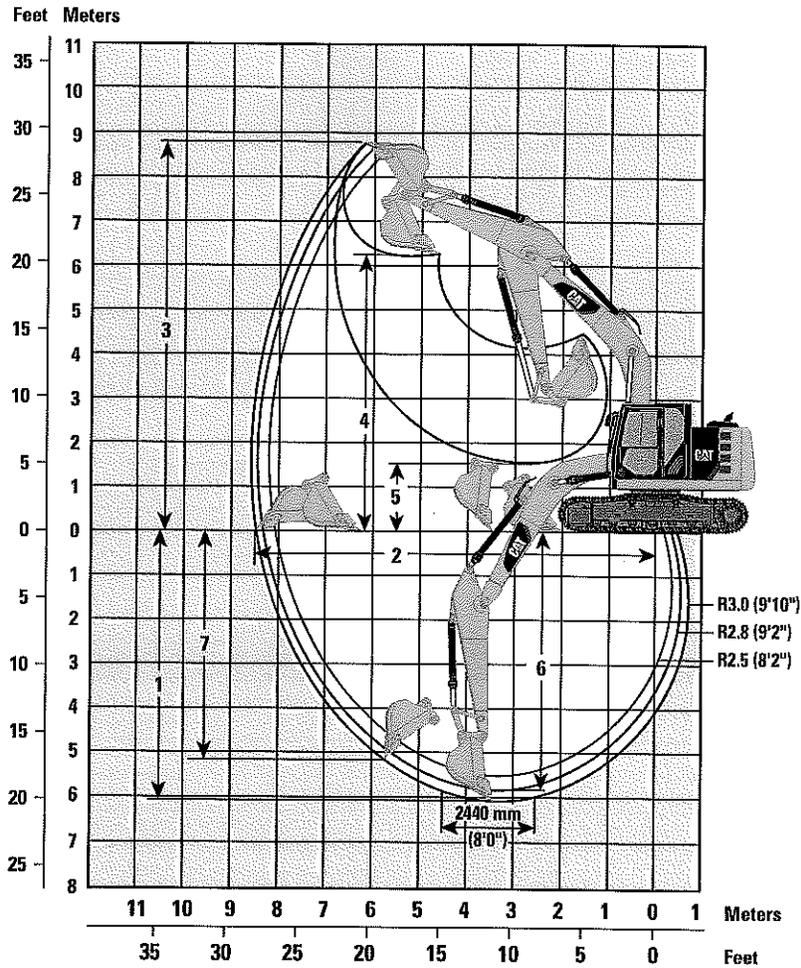
Stick	Reach Boom 4.65 m (15'3")		
	R3.0 (9'10")	R2.8 (9'2")	R2.5 (8'2")
	mm (ft)	mm (ft)	mm (ft)
<b>1</b> Shipping Height*	3060 (10'0")	3060 (10'0")	3060 (10'0")
Shipping Height at Boom Top	2830 (9'3")	2970 (9'9")	2830 (9'3")
Shipping Height with Guard Rail	3060 (10'0")	3060 (10'0")	3060 (10'0")
Shipping Height with Top Guard	2970 (9'9")	2970 (9'9")	2970 (9'9")
<b>2</b> Shipping Length			
Long Undercarriage	7670 (25'2")	7650 (25'1")	7670 (25'2")
Long Undercarriage with Blade	7960 (26'1")	7920 (26'0")	7950 (26'1")
<b>3</b> Tail Swing Radius	2160 (7'1")	2160 (7'1")	2160 (7'1")
<b>4</b> Length to Center of Rollers			
Long Undercarriage	3040 (10'0")	3040 (10'0")	3040 (10'0")
<b>5</b> Track Length			
Long Undercarriage	3750 (12'4")	3750 (12'4")	3750 (12'4")
<b>6</b> Ground Clearance	440 (1'5")	440 (1'5")	440 (1'5")
<b>7</b> Track Gauge	1990 (6'6")	1990 (6'6")	1990 (6'6")
<b>8</b> Transport Width			
500 mm (20") Shoes	2490 (8'2")	2490 (8'2")	2490 (8'2")
600 mm (24") Shoes	2590 (8'6")	2590 (8'6")	2590 (8'6")
700 mm (28") Shoes	2690 (8'10")	2690 (8'10")	2690 (8'10")
770 mm (30") Shoes	2760 (9'1")	2760 (9'1")	2760 (9'1")
<b>9</b> Cab Height	2770 (9'1")	2770 (9'1")	2770 (9'1")
Cab Height with Top Guard	2970 (9'9")	2970 (9'9")	2970 (9'9")
<b>10</b> Counterweight Clearance**	890 (2'11")	890 (2'11")	890 (2'11")

\*Including shoe lug height.

\*\*Without shoe lug height.

## Working Ranges

All dimensions are approximate.



Stick	Reach Boom 4.65 m (15'3")		
	R3.0 (9'10")	R2.8 (9'2")	R2.5 (8'2")
	mm (ft)	mm (ft)	mm (ft)
1 Maximum Digging Depth	6040 (19'10")	5840 (19'2")	5540 (18'2")
2 Maximum Reach at Ground Level	8620 (28'3")	8430 (27'8")	8170 (26'10")
3 Maximum Cutting Height	8710 (28'7")	8590 (28'2")	8490 (27'10")
4 Maximum Loading Height	6330 (20'9")	6210 (20'4")	6100 (20'0")
5 Minimum Loading Height	1530 (5'0")	1730 (5'8")	2020 (6'8")
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5860 (19'3")	5650 (18'6")	5330 (17'6")
7 Maximum Vertical Wall Digging Depth	5200 (17'1")	5070 (16'8")	4840 (15'11")

# 312E Hydraulic Excavator Specifications

## Operating Weight and Ground Pressure

### Long Undercarriage without Blade

	770 mm (30") Triple Grouser Shoes		700 mm (28") Triple Grouser Shoes		600 mm (24") Triple Grouser Shoes		500 mm (20") Triple Grouser Shoes	
	kg (lb)	kPa (psi)						
	Reach Boom – 4.65 m (15'3")							
R3.0 (9'10")	14 200 (31,310)	27.5 (3.98)	14 100 (31,090)	30.0 (4.35)	13 800 (30,430)	34.2 (4.97)	13 500 (29,770)	40.2 (5.83)
R2.8 (9'2")	14 200 (31,310)	27.5 (3.98)	14 000 (30,870)	29.8 (4.32)	13 800 (30,430)	34.2 (4.97)	13 500 (29,770)	40.2 (5.83)
R2.5 (8'2")	14 100 (31,090)	27.3 (3.97)	14 000 (30,870)	29.8 (4.32)	13 700 (30,210)	34.1 (4.94)	13 500 (29,770)	40.2 (5.83)

### Long Undercarriage with Blade

Reach Boom – 4.65 m (15'3")								
R3.0 (9'10")	15 000 (33,080)	29.0 (4.21)	14 900 (32,850)	31.7 (4.60)	14 600 (32,190)	36.2 (5.26)	14 400 (31,750)	42.9 (6.22)
R2.8 (9'2")	15 000 (33,080)	29.0 (4.21)	14 900 (32,850)	31.7 (4.60)	14 600 (32,190)	36.2 (5.26)	14 300 (31,530)	42.6 (6.18)
R2.5 (8'2")	14 900 (32,850)	28.9 (4.20)	14 800 (32,630)	31.5 (4.57)	14 500 (31,970)	36.0 (5.22)	14 300 (31,530)	42.6 (6.18)

All weights are rounded up to nearest 100 kg and lb including General Duty 0.65 m<sup>3</sup> (0.84 yd<sup>3</sup>) bucket (470 kg/1,040 lb).

## Major Component Weights

	kg	lb
Base Machine (with boom cylinder, without counterweight, front linkage and track)	5120	11,290
Long Undercarriage	2600	5,730
Counterweight 2.2 mt (2.4 t)	2200	4,850
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 4.65 m (15'3")	1010	2,230
Stick (includes lines, pins, bucket cylinder, and bucket linkage)		
R3.0 (9'10")	560	1,230
R2.8 (9'2")	530	1,170
R2.5 (8'2")	480	1,060
R3.0 (9'10") for Thumb	610	1,350
Track Shoe (Long/per two tracks)		
500 mm (20") Triple Grouser	1560	3,440
600 mm (24") Triple Grouser	1820	4,010
700 mm (28") Triple Grouser	2100	4,630
770 mm (30") Triple Grouser	2240	4,940
Blade		
2500 mm (8'2")	810	1,790
2600 mm (8'6")	810	1,790
2700 mm (8'10")	820	1,810

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

Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

## Bucket and Stick Forces

Stick	Reach Boom 4.65 m (15'3")		
	R3.0 (9'10")	R2.8 (9'2")	R2.5 (8'2")
	kN (lbf)	kN (lbf)	kN (lbf)
<b>General Duty Bucket</b>			
Bucket Digging Force (ISO)	95 (21,400)	95 (21,400)	95 (21,400)
Stick Digging Force (ISO)	58 (13,100)	61 (13,800)	65 (14,700)
Bucket Digging Force (SAE)	85 (19,200)	85 (19,200)	85 (19,200)
Stick Digging Force (SAE)	57 (12,800)	60 (13,500)	64 (14,300)
<b>Severe Duty Bucket</b>			
Bucket Digging Force (ISO)	95 (21,300)	95 (21,300)	95 (21,300)
Stick Digging Force (ISO)	58 (13,100)	61 (13,800)	65 (14,700)
Bucket Digging Force (SAE)	84 (18,800)	83 (18,700)	83 (18,700)
Stick Digging Force (SAE)	57 (12,800)	60 (13,400)	63 (14,200)



## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R2.5 (8'2")

Shoes – 700 mm (28") triple grouser with step

Diagram	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Diagram		m ft	
	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb		
6.0 m 20.0 ft					*3350 *7,450	*3350 *7,450			*2450 *5,400	*2450 *5,400	5.37 17.35	
4.5 m 15.0 ft					*3550 *7,750	*3550 *7,750	*3550 *7,100	2550 5,450	*2250 *4,950	*2250 *4,950	6.37 20.77	
3.0 m 10.0 ft			*5850 *12,500	*5850 *12,500	*4350 *9,400	3800 8,200	*3750 8,200	2500 5,350	*2250 *4,900	2000 4,400	6.90 22.60	
1.5 m 5.0 ft			*8450 *18,150	6400 13,800	*5350 *11,500	3600 7,700	3750 8,000	2400 5,150	*2350 *5,100	1900 4,150	7.08 23.22	
Ground Line			*6800 *15,950	6100 13,150	5550 11,950	3400 7,350	3650 7,800	2300 4,950	*2600 *5,650	1900 4,200	6.93 22.72	
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	6100 13,050	5500 11,800	3350 7,200	3600 7,750	2300 4,900	*3100 *6,800	2100 4,600	6.42 21.04
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	6150 13,250	*5500 *11,850	3400 7,300			4150 *9,250	2650 5,850	5.47 17.83

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R3.0 (9'10")

Shoes – 600 mm (24") triple grouser

Diagram	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		Diagram		m ft
	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb		
7.5 m 25.0 ft											*2550 *2550		4.37
6.0 m 20.0 ft											*2100 *4,650	*2100 *4,650	5.95 19.26
4.5 m 15.0 ft							*3150 *6,900	2550 5,400			*2000 *4,350	*2000 *4,350	6.86 22.39
3.0 m 10.0 ft					*3900 *8,400	3800 8,150	*3450 *7,550	2450 5,250			*2000 *4,350	1750 3,900	7.35 24.09
1.5 m 5.0 ft			*7600 *16,250	6450 13,850	*4950 *10,650	3550 7,600	3650 7,850	2350 5,000	*2150	1700	*2050 *4,550	1650 3,650	7.52 24.67
Ground Line			*7850 *18,150	6000 12,850	5450 11,700	3350 7,150	3550 7,600	2250 4,800			*2300 *5,000	1700 3,700	7.38 24.20
-1.5 m -5.0 ft	kg lb	*4500 *10,050	*4500 *10,050	*9350 *20,250	5850 12,600	5350 11,450	3250 6,950	3500 7,500	2200 4,700		*2700 *5,900	1800 4,000	6.91 22.63
-3.0 m -10.0 ft	kg lb	*7500 *16,850	*7500 *16,850	*8550 *18,500	5900 12,700	5350 11,450	3250 6,950	3500 7,500	2200		3500 7,750	2200 4,850	6.04 19.69
-4.5 m -15.0 ft	kg lb			*6450 *13,700	6100 13,150	*4050 *8,900	3400				*4000 *8,800	3350 7,600	4.53 14.54

\*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.

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

# 312E Hydraulic Excavator Specifications

## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 4.65 m (15'3")  
**Stick** – R2.8 (9'2")

**Counterweight** – 2.2 mt (2.4 t)  
**Shoes** – 600 mm (24") triple grouser

**Bucket** – None

Load Point Height	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Load Radius Over Side		m ft	
	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load Radius Over Front	Load Radius Over Side		
6.0 m 20.0 ft	kg lb									*2300 *5,100	*2300 *5,100	5.70 18.45
4.5 m 15.0 ft	kg lb				*3250 *7,150	*3250 *7,150	*3300 *7,250	2500 5,400		*2150 *4,750	2100 4,700	6.65 21.70
3.0 m 10.0 ft	kg lb			*5250 *11,200	*5250 *11,200	*4050 *8,800	3750 8,100	*3600 *7,800	2450 5,250	*2150 *4,700	1850 4,050	7.16 23.45
1.5 m 5.0 ft	kg lb			*7950 *17,050	6400 13,700	*5100 *11,000	3550 7,600	3650 7,850	2350 5,050	*2250 *4,950	1750 3,800	7.33 24.04
Ground Line	kg lb			*7500 *17,350	6000 12,850	5450 11,700	3350 7,200	3550 7,650	2250 4,850	*2500 *5,450	1750 3,850	7.18 23.57
-1.5 m -5.0 ft	kg lb	*4700 *10,450	*4700 *10,450	*9350 *20,200	5900 12,650	5350 11,580	3250 7,000	3500 7,550	2200 4,750	*2950 *6,550	1900 4,200	6.70 21.95
-3.0 m -10.0 ft	kg lb	*8000 *18,000	*8000 *18,000	*8400 *18,150	5950 12,800	5400 11,550	3250 7,050			3700 8,250	2350 5,200	5.80 18.90
-4.5 m -15.0 ft	kg lb			*6050 *6050						*4100 *10,000	3800 9,500	4.18 12.52

**Boom** – 4.65 m (15'3")  
**Stick** – R2.5 (8'2")

**Counterweight** – 2.2 mt (2.4 t)  
**Shoes** – 600 mm (24") triple grouser

**Bucket** – None

Load Point Height	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Load Radius Over Side		m ft	
	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load at Maximum Reach	Load Radius Over Side	Load Radius Over Front	Load Radius Over Side		
6.0 m 20.0 ft	kg lb				*3350 *7,450	*3350 *7,450				*2450 *5,400	*2450 *5,400	5.37 17.35
4.5 m 15.0 ft	kg lb				*3550 *7,750	*3550 *7,750	*3550 *7,750	2500 5,350		*2250 *4,950	*2250 *4,950	6.37 20.77
3.0 m 10.0 ft	kg lb			*5850 *12,500	*5850 *12,500	*4350 *9,400	3750 8,050	3750 8,050	2450 5,250	*2250 *4,900	1950 4,300	6.90 22.60
1.5 m 5.0 ft	kg lb			*8450 *18,150	6300 13,550	*5350 *11,500	3500 7,550	3650 7,850	2350 5,050	*2350 *5,100	1850 4,050	7.08 23.22
Ground Line	kg lb			*6900 *15,950	6000 12,900	5450 11,750	3350 7,200	3550 7,650	2250 4,900	*2600 *5,650	1850 4,100	6.93 22.72
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	5950 12,800	5400 11,600	3300 7,050	3550 7,600	2250 4,800	*3100 *6,800	2050 4,550	6.42 21.04
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	6050 13,000	5450 11,650	3300 7,150			4100 9,100	2600 5,700	5.47 17.83

\*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.

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## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

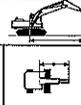
Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R3.0 (9'10")

Shoes – 500 mm (20") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
														
7.5 m 25.0 ft	kg lb											*2550	*2550	4.37
6.0 m 20.0 ft	kg lb											*2100	*2100	5.95 19.26
4.5 m 15.0 ft	kg lb							*3150	2500			*2000	2000	6.86 22.39
3.0 m 10.0 ft	kg lb					*3900	3750	*6,900	5,350			*4,350	*4,350	7.35 24.09
1.5 m 5.0 ft	kg lb			*7600	6350	*4950	3500	*3450	2400			*2000	1750	7.52 24.67
Ground Line	kg lb			*16,250	13,600	*10,650	7,500	*7,550	5,150			*4,550	3,600	7.38 24.20
-1.5 m -5.0 ft	kg lb	*4500	*4500	*9350	5750	5250	3200	3400	2150			*2700	1800	6.91 22.63
-3.0 m -10.0 ft	kg lb	*10,050	*10,050	*20,250	12,350	11,250	6,800	7,350	4,600			*5,900	3,950	6.04 19.69
-4.5 m -15.0 ft	kg lb			*7500	*7500	*8550	5800	5250	3200			3400	2150	4.53 14.54
	kg lb			*16,850	*16,850	*18,500	12,500	11,250	6,850			*8,800	7,500	
	kg lb			*6450	6000	*4050	3300					*4000	3300	
	kg lb			*13,700	12,950							*8,800	7,500	

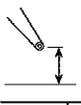
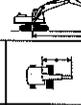
Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R2.8 (9'2")

Shoes – 500 mm (20") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft				m ft			
														
6.0 m 20.0 ft	kg lb									*2300	*2300	5.70 18.45		
4.5 m 15.0 ft	kg lb					*3250	*3250	*3300	2500	*2150	2100	6.65 21.70		
3.0 m 10.0 ft	kg lb			*5250	*5250	*4050	3700	*3600	2400	*2150	1800	7.16 23.45		
1.5 m 5.0 ft	kg lb			*11,200	*11,200	*8,800	8,000	*7,800	5,150	*4,700	4,800	7.33 24.04		
Ground Line	kg lb			*17,050	13,500	*11,000	7,450	7,700	4,950	*4,950	3,750	7.18 23.57		
-1.5 m -5.0 ft	kg lb	*4700	*4700	*9350	5800	5250	3200	3450	2150	*2500	1750	6.70 21.95		
-3.0 m -10.0 ft	kg lb	*10,450	*10,450	*20,200	12,450	11,300	6,850	7,400	4,650	*5,450	3,800	5.80 18.90		
-4.5 m -15.0 ft	kg lb			*7950	6250	*5100	3450	3600	2300			3650	2300	4.18 12.52
	kg lb			*17,350	12,650	11,500	7,050	7,500	4,750	*2950	1900	*4100	3750	
	kg lb			*18,000	*18,000	*18,150	12,600	11,350	6,900	8,100	5,100	*10,000	9,350	
	kg lb			*6050	*6050									

\*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.

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

# 312E Hydraulic Excavator Specifications

## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

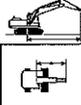
**Boom** – 4.65 m (15'3")

**Counterweight** – 2.2 mt (2.4 t)

**Bucket** – None

**Stick** – R2.5 (8'2")

**Shoes** – 500 mm (20") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft				m ft	
												
6.0 m 20.0 ft	kg lb				*3350 *7,450	*3350 *7,450			*2450 *5,400	*2450 *5,400	5.37 17.35	
4.5 m 15.0 ft	kg lb				*3550 *7,750	*3550 *7,750	*3550 *7,100	2450 5,250	*2250 *4,950	2250 4,950	6.37 20.77	
3.0 m 10.0 ft	kg lb		*5850 *12,500	*5850 *12,500	*4350 *9,400	3700 7,950	3700 7,950	2400 5,150	*2250 *4,900	1950 4,250	6.90 22.60	
1.5 m 5.0 ft	kg lb		*8450 *18,150	6200 13,350	*5350 *11,500	3450 7,450	3600 7,700	2300 4,950	*2350 *5,100	1800 4,000	7.08 23.22	
Ground Line	kg lb		*6900 *15,950	5900 12,700	5400 11,550	3300 7,100	3500 7,550	2250 4,800	*2600 *5,650	1850 4,050	6.93 22.72	
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	5850 12,600	5300 11,350	3250 6,950	3500 7,450	2200 4,750	*3100 *6,800	2000 4,450	6.42 21.04
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	5950 12,800	5350 11,450	3250 7,050			4000 8,900	2550 5,600	5.47 17.83

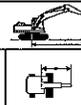
**Boom** – 4.65 m (15'3")

**Counterweight** – 2.2 mt (2.4 t)

**Bucket** – None

**Stick** – R3.0 (9'10")

**Shoes** – 700 mm (28") triple grouser – Blade Down

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft
													
7.5 m 25.0 ft	kg lb										*2550 *5,600	*2550 *5,600	4.37 14.34
6.0 m 20.0 ft	kg lb										*2100 *4,650	*2100 *4,650	5.95 19.26
4.5 m 15.0 ft	kg lb						*3150 *6,900	3050 6,500			*2000 *4,350	*2000 *4,350	6.86 22.39
3.0 m 10.0 ft	kg lb				*3900 *8,400	*3900 *8,400	*3450 *7,550	2950 6,350			*2000 *4,350	*2000 *4,350	7.35 24.09
1.5 m 5.0 ft	kg lb		*7600 *16,250	*7600 *16,250	*4950 *10,850	4300 9,250	*3950 *8,500	2850 6,100	*2150 4,700	2050	*2050 *4,550	2050 4,450	7.52 24.67
Ground Line	kg lb		*7850 *18,150	7550 16,150	*5750 *12,500	4100 8,800	*4350 *9,400	2750 5,900			*2300 *5,000	2050 4,500	7.38 24.20
-1.5 m -5.0 ft	kg lb	*4500 *10,050	*4500 *10,050	*9350 *20,250	7400 15,850	*6100 *13,200	4000 8,550	*4500 *9,700	2700 5,750		*2700 *5,900	2250 4,900	6.91 22.63
-3.0 m -10.0 ft	kg lb	*7500 *16,850	*7500 *16,850	*8550 *18,500	7450 15,950	*5750 *12,450	4000 8,550	*3950 8,550	2700		*3600 *7,950	2700 5,950	6.04 19.69
-4.5 m -15.0 ft	kg lb			*6450 *13,700	*6450 *13,700	*4050 *8,900	*4050 *8,900				*4000 *8,800	*4000 *8,800	4.53 14.54

\* 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.

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## Reach Boom Lift Capacities



**Boom** – 4.65 m (15'3")      **Counterweight** – 2.2 mt (2.4 t)      **Bucket** – None  
**Stick** – R2.8 (9'2")      **Shoes** – 700 mm (28") triple grouser – Blade Down

Load Point Height	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Load Radius Over Side		m ft
	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	
6.0 m 20.0 ft	kg lb								*2300 *5,100	*2300 *5,100	5.70 18.45
4.5 m 15.0 ft	kg lb				*3250 *7,150	*3250 *7,150	*3300 *7,250	3000 6,450	*2150 *4,750	*2150 *4,750	6.65 21.70
3.0 m 10.0 ft	kg lb			*5250 *11,200	*5250 *11,200	*4050 *8,800	*4050 *8,800	*3600 *7,800	2950 6,300	*2150 *4,700	7.16 23.45
1.5 m 5.0 ft	kg lb			*7950 *17,050	*7950 *17,050	*5100 *11,000	4300 9,200	*4050 *8,750	2850 6,100	*2250 *4,950	7.33 24.04
Ground Line	kg lb			*7500 *17,350	*7500 *16,150	*5900 *12,700	4100 8,800	*4400 *9,550	2750 5,900	*2500 *5,450	7.18 23.57
-1.5 m -5.0 ft	kg lb	*4700 *10,450	*4700 *10,450	*9350 *20,200	7450 15,950	*6150 *13,250	4000 8,600	*4500 *9,700	2700 5,800	*2950 *6,550	6.70 21.95
-3.0 m -10.0 ft	kg lb	*8000 *18,000	*8000 *18,000	*8400 *18,150	7500 16,100	*5700 *12,250	4000 8,650			*4050 *9,000	5.80 18.90
-4.5 m -15.0 ft	kg lb			*6050 *6050						*4100 *10,000	4.18 12.52

**Boom** – 4.65 m (15'3")      **Counterweight** – 2.2 mt (2.4 t)      **Bucket** – None  
**Stick** – R2.5 (8'2")      **Shoes** – 700 mm (28") triple grouser – Blade Down

Load Point Height	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Load Radius Over Side		m ft
	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	Load at Maximum Reach	Load Radius Over Front	
6.0 m 20.0 ft	kg lb				*3350 *7,450	*3350 *7,450			*2450 *5,400	*2450 *5,400	5.37 17.35
4.5 m 15.0 ft	kg lb				*3550 *7,750	*3550 *7,750	*3550 *7,750	3000 6,450	*2250 *4,950	*2250 *4,950	6.37 20.77
3.0 m 10.0 ft	kg lb			*5850 *12,500	*5850 *12,500	*4350 *9,400	*4350 *9,400	*3750 *8,200	2950 6,300	*2250 *4,900	6.90 22.60
1.5 m 5.0 ft	kg lb			*8450 *18,150	7850 16,900	*5350 *11,500	4300 9,200	*4200 *9,050	2850 6,100	*2350 *5,100	7.08 23.22
Ground Line	kg lb			*6900 *15,950	*6900 *15,950	*6000 *13,000	4100 8,850	*4500 *9,750	2750 5,950	*2600 *5,650	6.93 22.72
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	7500 16,100	*6150 *13,300	4050 8,700	*4500 *9,650	2750 5,900	*3100 *6,800	6.42 21.04
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	7600 16,300	*5500 *11,850	4100 8,750			*4200 *9,250	5.47 17.83

\* 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.

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

# 312E Hydraulic Excavator Specifications

## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 4.65 m (15'3")

**Counterweight** – 2.2 mt (2.4 t)

**Bucket** – None

**Stick** – R3.0 (9'10")

**Shoes** – 600 mm (24") triple grouser – Blade Down

Diagram	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		Diagram		m ft	
	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram		
7.5 m 25.0 ft	kg											*2550	*2550	4.37
6.0 m 20.0 ft	kg											*2100	*2100	5.95
	lb											*4,650	*4,650	19.26
4.5 m 15.0 ft	kg						*3150	2950				*2000	*2000	6.86
	lb						*6,900	6,250				*4,350	*4,350	22.39
3.0 m 10.0 ft	kg					*3900	*3900	*3450	2850			*2000	*2000	7.35
	lb					*8,400	*8,400	*7,550	6,100			*4,350	*4,350	24.09
1.5 m 5.0 ft	kg			*7600	*7600	*4950	4150	*3950	2750	*2150	1950	*2050	1950	7.52
	lb			*16,250	*16,250	*10,850	8,900	*8,500	5,850			*4,550	4,300	24.67
Ground Line	kg			*7850	7200	*5750	3950	*4350	2650			*2300	2000	7.38
	lb			*18,150	15,450	*12,500	8,450	*9,400	5,650			*5,000	4,350	24.20
-1.5 m -5.0 ft	kg	*4500	*4500	*9350	7050	*6100	3850	*4500	2600			*2700	2150	6.91
	lb	*10,050	*10,050	*20,250	15,150	*13,200	8,200	*9,700	5,550			*5,900	4,700	22.63
-3.0 m -10.0 ft	kg	*7500	*7500	*8550	7100	*5750	3850	*3950	2600			*3600	2600	6.04
	lb	*16,850	*16,850	*18,500	15,250	*12,450	8,250					*7,950	5,700	19.69
-4.5 m -15.0 ft	kg			*6450	*6450	*4050	4000					*4000	3950	4.53
	lb			*13,700	*13,700							*8,800	*8,800	14.54

**Boom** – 4.65 m (15'3")

**Counterweight** – 2.2 mt (2.4 t)

**Bucket** – None

**Stick** – R2.8 (9'2")

**Shoes** – 600 mm (24") triple grouser – Blade Down

Diagram	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		Diagram		m ft	
	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram	Diagram		
6.0 m 20.0 ft	kg								*2300	*2300	5.70	
	lb								*5,100	*5,100	18.45	
4.5 m 15.0 ft	kg					*3250	*3250	*3300	2900	*2150	*2150	6.65
	lb					*7,150	*7,150	*7,250	6,250	*4,750	*4,750	21.70
3.0 m 10.0 ft	kg			*5250	*5250	*4050	*4050	*3600	2850	*2150	*2150	7.16
	lb			*11,200	*11,200	*8,800	*8,800	*7,800	6,100	*4,700	*4,700	23.45
1.5 m 5.0 ft	kg			*7950	7600	*5100	4150	*4050	2750	*2250	2050	7.33
	lb			*17,050	16,350	*11,000	8,900	*8,750	5,850	*4,950	4,450	24.04
Ground Line	kg			*7500	7200	*5900	3950	*4400	2650	*2500	2050	7.18
	lb			*17,350	15,450	*12,700	8,450	*9,550	5,650	*5,450	4,500	23.57
-1.5 m -5.0 ft	kg	*4700	*4700	*9350	7100	*6150	3850	*4500	2600	*2950	2250	6.70
	lb	*10,450	*10,450	*20,200	15,250	*13,250	8,250	*9,700	5,600	*6,550	4,950	21.95
-3.0 m -10.0 ft	kg	*8000	*8000	*8400	7200	*5700	3850			*4050	2750	5.80
	lb	*18,000	*18,000	*18,150	15,400	*12,250	8,300			*9,000	6,100	18.90
-4.5 m -15.0 ft	kg			*6050	*6050					*4100	*4100	4.18
	lb									*10,000	*10,000	12.52

\* 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.

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

## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R2.5 (8'2")

Shoes – 600 mm (24") triple grouser – Blade Down

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft				m ft	
												
6.0 m 20.0 ft	kg lb				*3350 *7,450	*3350 *7,450				*2450 *5,400	*2450 *5,400	5.37 17.35
4.5 m 15.0 ft	kg lb				*3550 *7,750	*3550 *7,750	*3550 *7,100	2900 6,200	*2250 *4,950	*2250 *4,950	6.37 20.77	
3.0 m 10.0 ft	kg lb			*5850 *12,500	*5850 *12,500	*4350 *9,400	*4350 9,350	*3750 *8,200	2850 6,100	*2250 *4,900	*2250 *4,900	6.90 22.60
1.5 m 5.0 ft	kg lb			*8450 *18,150	7550 16,150	*5350 *11,500	4100 8,850	*4200 *9,050	2750 5,900	*2350 *5,100	2150 4,750	7.08 23.22
Ground Line	kg lb			*6900 *15,950	*6900 15,450	*6000 *13,000	3950 8,500	*4500 *9,750	2650 5,700	*2600 *5,650	2200 4,800	6.93 22.72
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	7150 15,400	*6150 *13,300	3900 8,350	*4500 *9,650	2650 5,650	*3100 *6,800	2400 5,300	6.42 21.04
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	7250 15,600	*5500 *11,850	3900 8,400			*4200 *9,250	3000 6,700	5.47 17.83

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R3.0 (9'10")

Shoes – 500 mm (20") triple grouser – Blade Down

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
														
7.5 m 25.0 ft	kg lb											*2550 *2550	4.37	
6.0 m 20.0 ft	kg lb											*2100 *4,650	*2100 *4,650	5.95 19.26
4.5 m 15.0 ft	kg lb							*3150 *6,900	2850 6,050			*2000 *4,350	*2000 *4,350	6.86 22.39
3.0 m 10.0 ft	kg lb					*3900 *8,400	*3900 *8,400	*3450 *7,550	2750 5,900			*2000 *4,350	*2000 *4,350	7.35 24.09
1.5 m 5.0 ft	kg lb			*7600 *16,250	7350 15,800	*4950 *10,650	4000 8,550	*3950 *8,500	2650 5,650	*2150 1900	1900	*2050 *4,550	1900 4,150	7.52 24.67
Ground Line	kg lb			*7850 *18,150	6900 14,800	*5750 *12,500	3800 8,100	*4350 *9,400	2550 5,450			*2300 *5,000	1900 4,150	7.38 24.20
-1.5 m -5.0 ft	kg lb	*4500 *10,050	*4500 *10,050	*9350 *20,250	6750 14,500	*6100 *13,200	3700 7,900	*4500 *9,700	2500 5,350			*2700 *5,900	2050 4,550	6.91 22.63
-3.0 m -10.0 ft	kg lb	*7500 *16,850	*7500 *16,850	*8550 *18,500	6800 14,600	*5750 *12,450	3700 7,900	*3950 *8,500	2500			*3600 *7,950	2500 5,500	6.04 19.69
-4.5 m -15.0 ft	kg lb			*6450 *13,700	*6450 *13,700	*4050	3800					*4000 *8,800	3800 8,600	4.53 14.54

\*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.

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

# 312E Hydraulic Excavator Specifications

## Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R2.8 (9'2")

Shoes – 500 mm (20") triple grouser – Blade Down

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft				m ft	
												
6.0 m 20.0 ft	kg lb									*2300 *5,100	*2300 *5,100	5.70 18.45
4.5 m 15.0 ft	kg lb				*3250 *7,150	*3250 *7,150	*3300 *7,250	2800 6,000	*2150 *4,750	*2150 *4,750	6.65 21.70	
3.0 m 10.0 ft	kg lb		*5250 *11,200	*5250 *11,200	*4050 *8,800	*4050 *8,800	*3600 *7,800	2750 5,900	*2150 *4,700	2100 4,550	7.16 23.45	
1.5 m 5.0 ft	kg lb		*7950 *17,050	7300 15,650	*5100 *11,000	4000 8,550	*4050 *8,750	2650 5,650	*2250 *4,950	1950 4,300	7.33 24.04	
Ground Line	kg lb		*7500 *17,350	6900 14,800	*5900 *12,700	3800 8,150	*4400 *9,550	2550 5,450	*2500 *5,450	2000 4,350	7.18 23.57	
-1.5 m -5.0 ft	kg lb	*4700 *10,450	*4700 *10,450	*9350 *20,200	6800 14,600	*6150 *13,250	3700 7,950	*4500 *9,700	2500 5,350	*2950 *6,550	2150 4,750	6.70 21.95
-3.0 m -10.0 ft	kg lb	*8000 *18,000	*8000 *18,000	*8400 *18,150	6850 14,750	*5700 *12,250	3700 8,000		*4050 *9,000	2650 5,850	5.80 18.90	
-4.5 m -15.0 ft	kg lb			*6050 *6050					*4100 *10,000	*4100 *10,000	4.18 12.52	

Boom – 4.65 m (15'3")

Counterweight – 2.2 mt (2.4 t)

Bucket – None

Stick – R2.5 (8'2")

Shoes – 500 mm (20") triple grouser – Blade Down

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft				m ft	
												
6.0 m 20.0 ft	kg lb					*3350 *7,450	*3350 *7,450			*2450 *5,400	*2450 *5,400	5.37 17.35
4.5 m 15.0 ft	kg lb				*3650 *7,750	*3650 *7,750	*3550 *7,750	2800 6,000	*2250 *4,950	*2250 *4,950	6.37 20.77	
3.0 m 10.0 ft	kg lb		*5850 *12,500	*5850 *12,500	*4350 *9,400	4200 9,050	*3750 *8,200	2750 5,850	*2250 *4,900	2200 4,850	6.90 22.60	
1.5 m 5.0 ft	kg lb		*8450 *18,150	7200 15,500	*5350 *11,500	3950 8,550	*4200 *9,050	2650 5,650	*2350 *5,100	2100 4,550	7.08 23.22	
Ground Line	kg lb		*6900 *15,950	*6900 14,800	*6000 *13,000	3800 8,150	*4500 *9,750	2550 5,500	*2600 *5,650	2100 4,650	6.93 22.72	
-1.5 m -5.0 ft	kg lb	*4900 *10,900	*4900 *10,900	*9250 *20,000	6850 14,700	*6150 *13,300	3750 8,000	*4500 *9,650	*3100 *6,800	2300 5,100	6.42 21.04	
-3.0 m -10.0 ft	kg lb	*8750 *19,750	*8750 *19,750	*8100 *17,450	6950 14,950	*5500 *11,850	3750 8,100		*4200 *9,250	2900 6,450	5.47 17.83	

\*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.

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

## Work Tool Offering Guide\*

Boom Type	Reach Boom			
	Stick Size	R3.0 (9'10")	R2.8 (9'2")	R2.5 (8'2")
Hydraulic Hammer		H110Es	H110Es	H110Es
		H115Es	H115Es	H115Es
Mobile Scrap and Demolition Shear		S320B**	S320B**	S320B**
Compactor (Vibratory Plate)		CVP75	CVP76	CVP75
Contractors' Grapple		G112B	G112B	G112B
Trash Grapple				
Thumbs				
Center-Lock Pin Grabber Coupler				
Dedicated Quick Coupler				

These work tools are available for the 312E.  
Consult your Cat dealer for proper match.

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

\*\*Boom mount.

# 312E Hydraulic Excavator Specifications

## Bucket Specifications and Compatibility

	Width		Capacity		Weight		Fill	Reach Boom			
	mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		%	R3.0 (9'10")	R2.8 (9'2")	R2.5 (8'2")
<b>Without Quick Coupler</b>											
General Duty (GD)	450	18	0.20	0.27	276	608	100%	●	●	●	●
	600	24	0.31	0.40	326	719	100%	●	●	●	●
	750	30	0.41	0.54	374	823	100%	●	●	●	●
	900	36	0.53	0.69	423	932	100%	●	●	●	●
	1050	42	0.65	0.84	469	1,034	100%	⊙	●	●	⊙
	1200	48	0.76	1.00	510	1,125	100%	X	X	X	X
Severe Duty (SD)	600	24	0.31	0.40	367	810	90%	●	●	●	●
	750	30	0.41	0.54	425	936	90%	●	●	●	●
	900	36	0.53	0.69	483	1,065	90%	●	●	●	●
	1050	42	0.65	0.84	529	1,166	90%	●	●	●	●
Maximum load pin-on (payload + bucket)							kg	1745	1835	1970	1695
							lb	3,846	4,044	4,342	3,736
<b>With Center Lock Quick Coupler</b>											
General Duty (GD)	450	18	0.20	0.27	276	608	100%	●	●	●	●
	600	24	0.31	0.40	326	719	100%	●	●	●	●
	750	30	0.41	0.54	374	823	100%	●	●	●	●
	900	36	0.53	0.69	423	932	100%	●	●	●	●
	1050	42	0.65	0.84	469	1,034	100%	⊙	●	●	⊙
	1200	48	0.76	1.00	510	1,125	100%	⊖	⊙	⊙	⊖
Severe Duty (SD)	600	24	0.31	0.40	367	810	90%	●	●	●	●
	750	30	0.41	0.54	425	936	90%	●	●	●	●
	900	36	0.53	0.69	483	1,065	90%	●	●	●	●
	1050	42	0.65	0.84	529	1,166	90%	●	●	●	●
Maximum load with coupler (payload + bucket)							kg	1499	1589	1724	1449
							lb	3,304	3,503	3,800	3,194

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 Long tips.

\* Densities with 3.0 m (9'10") thumb stick do not consider thumb weight.

### Maximum Material Density:

- 2100 kg/m<sup>3</sup> (3,500 lb/yd<sup>3</sup>)
- ⊙ 1800 kg/m<sup>3</sup> (3,000 lb/yd<sup>3</sup>)
- ⊖ 1500 kg/m<sup>3</sup> (2,500 lb/yd<sup>3</sup>)
- X Not recommended

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.

Standard equipment may vary. Consult your Cat dealer for details.

## ENGINE

- C4.4 diesel engine
- Biodiesel capable
- Meets EPA Tier 4 Interim emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- Automatic engine speed control
- Economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- Radial seal air filter
- Primary filter with water separator and water separator indicator
- Secondary filter
- Screen filter in fuel line
- Cold weather battery -25° C (-13° F)
- Jump start receptacle

## HYDRAULIC SYSTEM

- Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump and circuit
- Capability of installing boom lowering control device and stick lowering check valve
- Fine swing control

## CAB

- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- Beverage holder
- Literature holder
- AM/FM radio
- Radio with MP3 auxiliary audio port
- Two 12V stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with indicators, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Travel alarm
- Laminated glass front upper window and tempered other windows
- Sunscreen

## UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

## COUNTERWEIGHT

- 2.2 mt (2.4 t)

## ELECTRICAL

- 80 amp alternator
- Circuit breaker
- Capability to electrically connect a beacon

## LIGHTS

- Halogen boom light (left side)
- Time delay function for boom light and cab light
- Exterior lights integrated into storage box

## SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Openable skylight for emergency exit
- Rearview camera-ready

# 312E Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

## ENGINE

Quick drains, engine and hydraulic oil

## HYDRAULIC SYSTEM

Control pattern quick-changer, two way  
Auxiliary hydraulics  
Boom and stick lines  
High-pressure line  
Medium-pressure line  
Cat quick coupler line – high-pressure capable  
Boom lowering and stick lowering control device  
Cat Bio hydraulic oil

## CAB

Cab hatch emergency exit  
Seat, high-back air suspension with heater and cooling  
Seat, high-back air suspension with heater  
Seat, high-back mechanical suspension  
Windshield wiper, lower with washer  
Air pre-filter  
Left foot switch  
Left pedal  
Straight travel pedal  
Rain protector  
Cab mirror  
Ashtray

## UNDERCARRIAGE

500 mm (20") triple grouser shoes  
600 mm (24") triple grouser shoes  
700 mm (28") triple grouser shoes  
770 mm (30") triple grouser shoes  
Rubber pad for 500 mm (20") triple grouser shoes  
Guard, heavy-duty bottom  
Center track guiding guard  
Segmented (2 piece) track guiding guard  
2500 mm (8'2") blade with replaceable cutting edge  
2600 mm (8'6") blade with replaceable cutting edge  
2700 mm (8'10") blade with replaceable cutting edge  
Swivel guard

## FRONT LINKAGE

Quick coupler  
Bucket linkage, without lifting eye  
4.65 m (15'3") reach boom  
2.5 m (8'2") stick  
2.8 m (9'2") stick  
3.0 m (9'10") stick  
3.0 m (9'10") thumb-ready stick

## LIGHTS

Working lights, cab mounted with time delay  
HID lights, cab mounted with time delay  
Halogen boom lights (right side)

## SECURITY

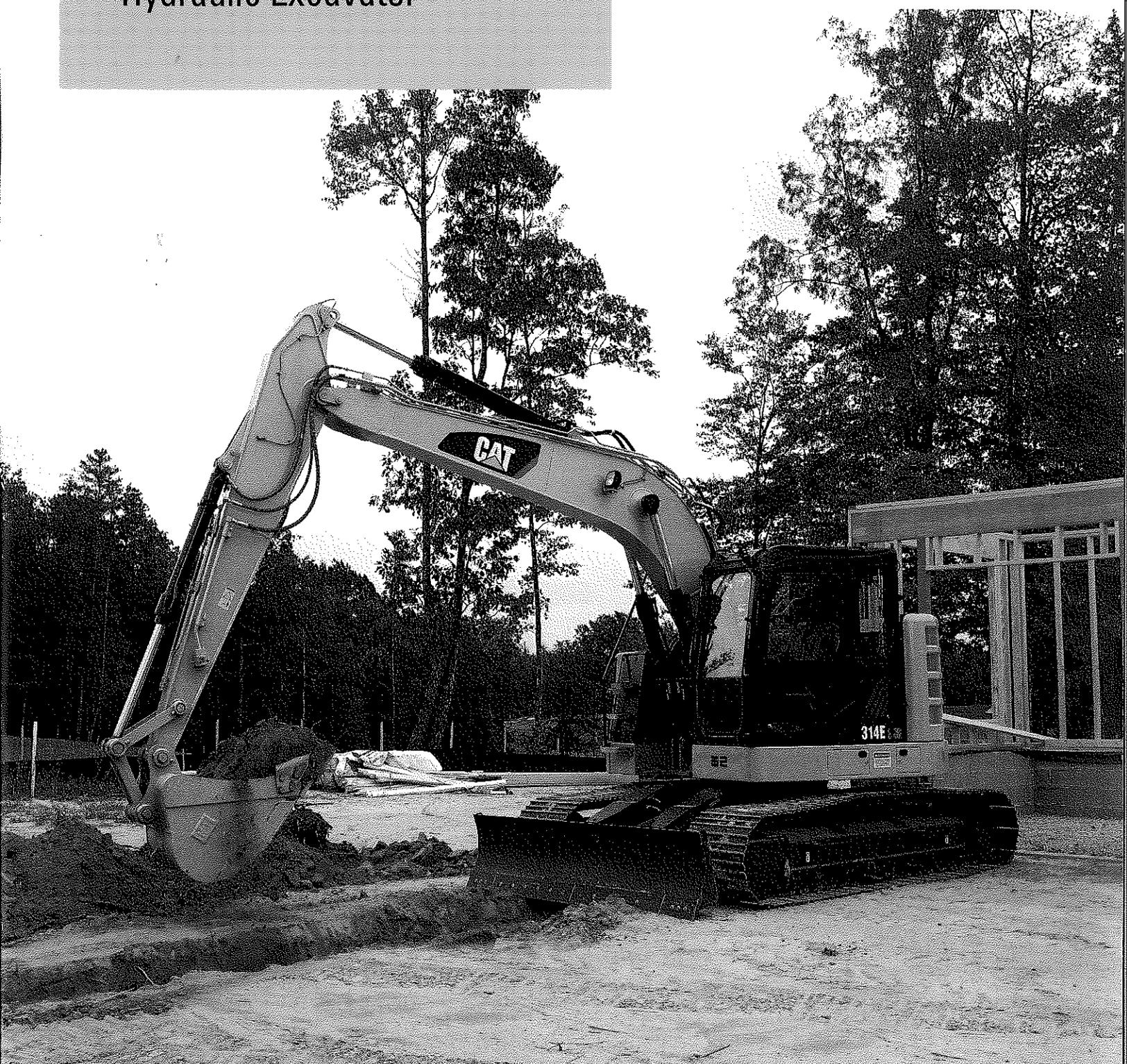
FOGS, bolt-on  
Side steel bumper  
Guard rail  
Guard, cab front, mesh  
Guard, vandalism  
Rearview camera

## TECHNOLOGY

Cat Grade Control Depth and Slope  
Product Link

# 314E CR

Hydraulic Excavator



### Engine

Engine Model	Cat® C4.4 ACERT™	
Net Power – SAE J1349	67 kW	89 hp

### Drive

Maximum Travel Speed	5.4 km/h	3.4 mph
Maximum Drawbar Pull	113 kN	25,400 lbf

### Weight

Operating Weight	14 800 kg	32,600 lb
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# 314E CR Hydraulic Excavator Specifications

## Engine

Engine Model	Cat C4.4 ACERT	
Gross Power – SAE J1995	71 kW	95 hp
Net Power – SAE J1349	67 kW	89 hp
Bore	105 mm	4.1 in
Stroke	127 mm	5.0 in
Displacement	4.4 L	270 in <sup>3</sup>

## Weight

Operating Weight	14 800 kg	32,600 lb
------------------	-----------	-----------

## Hydraulic System

Main System – Maximum Flow (Total)	254 L/min	67 gal/min
Swing System – Maximum Flow	127 L/min	34 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,420 psi
Maximum Pressure – Power Offset Boom (optional)	29 900 kPa	4,340 psi
Maximum Pressure – Travel	35 000 kPa	5,080 psi
Maximum Pressure – Swing	23 000 kPa	3,340 psi
Pilot System – Maximum Flow	21.9 L/min	4.8 gal/min
Pilot System – Maximum Pressure	4120 kPa	600 psi
Boom Cylinder – Bore	110 mm	4.3 in
Boom Cylinder – Stroke	1000 mm	39.4 in
Stick Cylinder – Bore	120 mm	4.7 in
Stick Cylinder – Stroke	1197 mm	47.1 in
Bucket Cylinder – Bore	100 mm	3.9 in
Bucket Cylinder – Stroke	939 mm	37.0 in

## Drive

Maximum Travel Speed	5.4 km/h	3.4 mph
Maximum Drawbar Pull	113 kN	25,400 lbf

## Swing Mechanism

Swing Speed	11.5 rpm	
Swing Torque	30.9 kN·m	22,790 lbf-ft

## Service Refill Capacities

Fuel Tank Capacity	178 L	47.0 gal
Cooling System	28 L	7.40 gal
Engine Oil (with filter)	13.5 L	3.6 gal
Swing Drive (each)	2.4 L	0.6 gal
Final Drive (each)	3 L	0.8 gal
Hydraulic System (including tank)	160 L	42.3 gal
Hydraulic Tank	84 L	22.2 gal

## Track

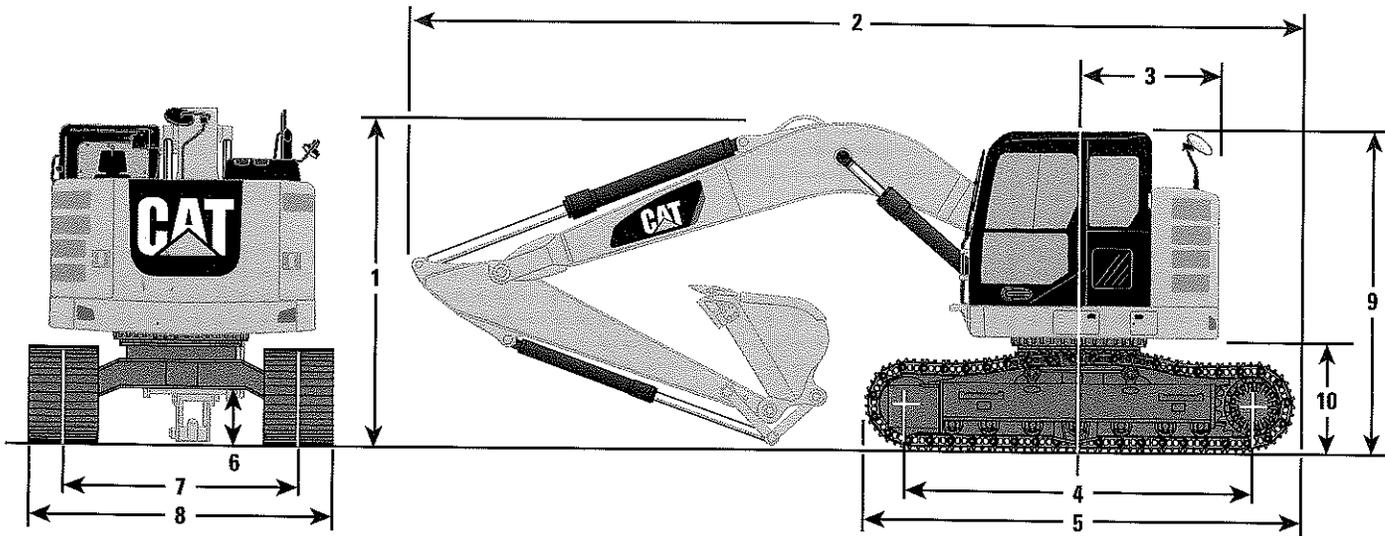
Long Undercarriage		
Number of Shoes (each side)	46 pieces	
Number of Track Rollers (each side)	7 pieces	
Number of Carrier Rollers (each side)	2 pieces	

## Sound Performance

ISO 6396		
Operator Noise (Closed)	69 dB(A)	
ISO 6395		
Spectator Noise	100 dB(A)	

## Dimensions

All dimensions are approximate.



Stick	Reach Boom 4.65 m (15'3")				Power Offset Boom			
	R3.0 m (9'10")		R2.8 m (9'2")		R2.5 m (8'2")		2.13 m (6'11")	
<b>1</b> Shipping Height*	3000 mm	9'10"	3030 mm	9'11"	3000 mm	9'10"	3000 mm	9'10"
Shipping Height at Boom Top	2750 mm	9'0"	3030 mm	9'11"	2820 mm	9'3"	2780 mm	9'1"
Shipping Height with Guard Rail	3000 mm	9'10"	3000 mm	9'10"	3000 mm	9'10"	3000 mm	9'10"
Shipping Height with Top Guard	2950 mm	9'8"	2950 mm	9'8"	2950 mm	9'8"	2950 mm	9'8"
<b>2</b> Shipping Length								
Long Undercarriage	7450 mm	24'5"	7440 mm	24'5"	7450 mm	24'5"	7560 mm	24'10"
Long Undercarriage with Blade	8010 mm	26'3"	8010 mm	26'3"	8010 mm	26'3"	8120 mm	26'8"
<b>3</b> Tail Swing Radius								
Standard Counterweight	1490 mm	4'11"	1490 mm	4'11"	1490 mm	4'11"	1490 mm	4'11"
Heavy Counterweight	1530 mm	5'0"	1530 mm	5'0"	1530 mm	5'0"	1530 mm	5'0"
<b>4</b> Length to Center of Rollers	3040 mm	10'0"	3040 mm	10'0"	3040 mm	10'0"	3040 mm	10'0"
<b>5</b> Track Length	3750 mm	12'4"	3750 mm	12'4"	3750 mm	12'4"	3750 mm	12'4"
<b>6</b> Ground Clearance	440 mm	1'5"	440 mm	1'5"	440 mm	1'5"	440 mm	1'5"
<b>7</b> Track Gauge	1990 mm	6'6"	1990 mm	6'6"	1990 mm	6'6"	1990 mm	6'6"
<b>8</b> Transport Width								
500 mm (20") Shoes	2490 mm	8'2"	2490 mm	8'2"	2490 mm	8'2"	2490 mm	8'2"
600 mm (24") Shoes	2590 mm	8'6"	2590 mm	8'6"	2590 mm	8'6"	2590 mm	8'6"
700 mm (28") Shoes	2690 mm	8'10"	2690 mm	8'10"	2690 mm	8'10"	2690 mm	8'10"
<b>9</b> Cab Height	2810 mm	9'3"	2810 mm	9'3"	2810 mm	9'3"	2810 mm	9'3"
Cab Height with Top Guard	2950 mm	9'8"	2950 mm	9'8"	2950 mm	9'8"	2950 mm	9'8"
<b>10</b> Counterweight Clearance**	860 mm	2'10"	860 mm	2'10"	860 mm	2'10"	860 mm	2'10"

\*Including shoe lug height.

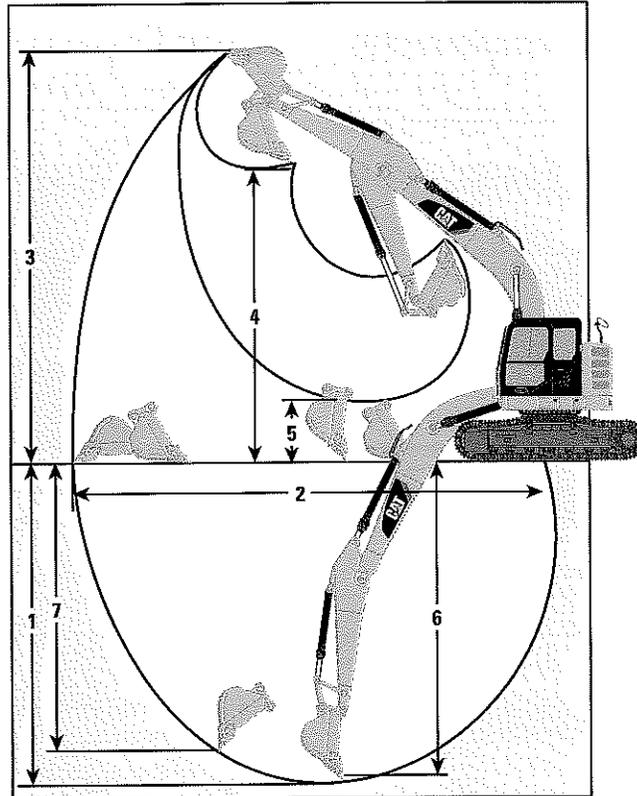
\*\*Without shoe lug height.

All dimensions were calculated with 900 mm (35") wide GD bucket with 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>) capacity and 1200 mm (3'11") tip radius.

# 314E CR Hydraulic Excavator Specifications

## Working Ranges

All dimensions are approximate.

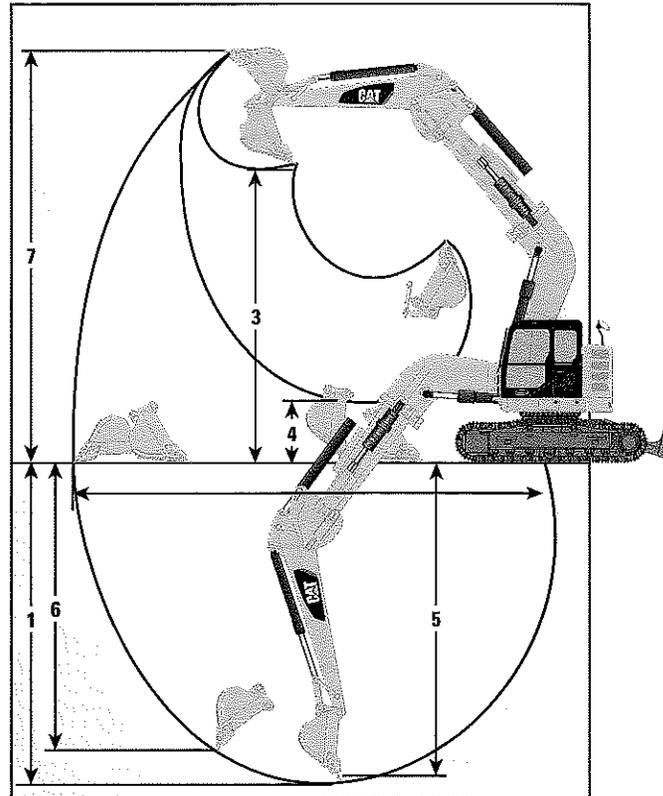


Stick	Reach Boom 4.65 m (15'3")					
	R3.0 m (9'10")		R2.8 m (9'2")		R2.5 m (8'2")	
1 Maximum Digging Depth	5950 mm	19'6"	5750 mm	18'10"	5450 mm	17'11"
2 Maximum Reach at Ground Level	8680 mm	28'6"	8490 mm	27'10"	8230 mm	27'0"
3 Maximum Cutting Height	9640 mm	31'8"	9480 mm	31'1"	9310 mm	30'7"
4 Maximum Loading Height	7190 mm	23'7"	7030 mm	23'1"	6860 mm	22'6"
5 Minimum Loading Height	2060 mm	6'9"	2240 mm	7'4"	2500 mm	8'2"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5660 mm	18'7"	5460 mm	17'11"	5160 mm	16'11"
7 Maximum Vertical Wall Digging Depth	5280 mm	17'4"	5090 mm	16'8"	4880 mm	16'0"

All dimensions were calculated with 900 mm (35") wide GD bucket with 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>) capacity and 1200 mm (3'11") tip radius.

## Working Ranges

All dimensions are approximate.



Stick	Power Offset Boom					
	2.13 m (6'11")*		2.13 m (6'11")		2.13 m (6'11")**	
1 Maximum Digging Depth	4510 mm	14'10"	4840 mm	15'11"	4480 mm	14'8"
2 Maximum Reach at Ground Level	6890 mm	22'7"	7270 mm	23'10"	6850 mm	22'6"
3 Maximum Cutting Height	8110 mm	26'7"	8450 mm	27'9"	8070 mm	26'7"
4 Maximum Loading Height	5680 mm	18'8"	6020 mm	19'9"	5640 mm	18'6"
5 Minimum Loading Height	2330 mm	7'8"	2680 mm	8'10"	2290 mm	7'6"
6 Maximum Depth Cut for 2440 mm (8'0'') Level Bottom	4110 mm	13'6"	4450 mm	14'7"	4080 mm	13'5"
7 Maximum Vertical Wall Digging Depth	3270 mm	10'9"	3550 mm	11'8"	3240 mm	10'8"

\*Left side 1100 mm (3'7") offset position

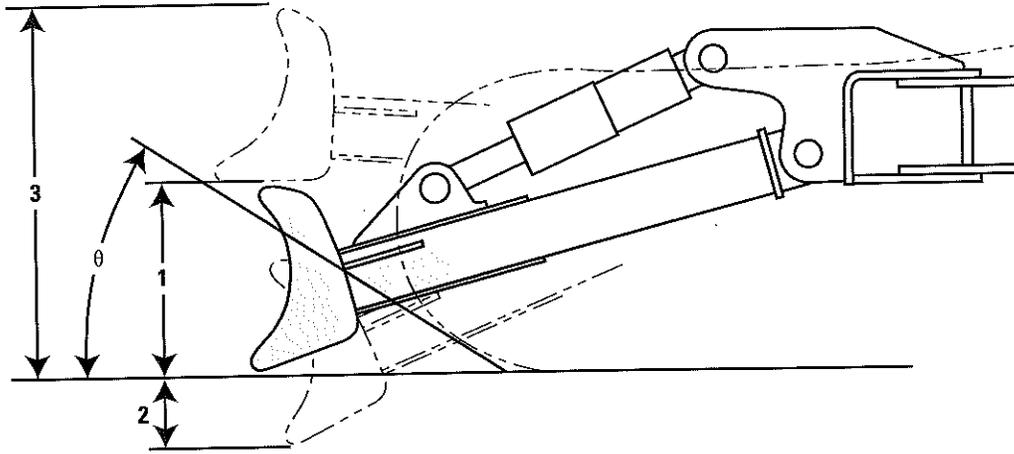
\*\*Right side 1150 mm (3'9") offset position

All dimensions were calculated with 900 mm (35") wide GD bucket with 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>) capacity and 1200 mm (3'11") tip radius.

# 314E CR Hydraulic Excavator Specifications

## Blade Working Ranges

All dimensions are approximate.



Blade Options	2500 mm (8'2")		2600 mm (8'6")		2700 mm (8'10")	
Recommended Track Shoe Width	500 mm (20")		600 mm (24")		700 mm (28")	
1 Blade Height	630 mm	2'1"	630 mm	2'1"	630 mm	2'1"
2 Maximum Lowering Depth from Ground	570 mm	1'10"	570 mm	1'10"	570 mm	1'10"
3 Maximum Raising Height above Ground	1000 mm	3'3"	1000 mm	3'3"	1000 mm	3'3"
$\theta$ Approach Angle	24.9 degrees		24.9 degrees		24.9 degrees	

## Major Component Weights

Base Machine (with boom cylinder, without counterweight, front linkage and track)	5040 kg	11,110 lb
Long Undercarriage	2660 kg	5,870 lb
Counterweight		
Standard – 3.06 mt (3.4 t)	3060 kg	6,750 lb
Heavy – 3.56 mt (3.9 t)	3560 kg	7,850 lb
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 4.65 m (15'3")	1040 kg	2,290 lb
Power Offset Boom	1730 kg	3,810 lb
Reach Boom for CGC – 4.65 m (15'3")	1050 kg	2,320 lb
Stick (includes lines, pins, bucket cylinder and bucket linkage)		
R3.0 m (9'10")	650 kg	1,430 lb
R2.8 m (9'2")	620 kg	1,370 lb
R2.5 m (8'2")	570 kg	1,260 lb
2.13 m (6'11") for Power Offset Boom	570 kg	1,260 lb
R3.0 m (9'10") for CGC	650 kg	1,430 lb
R3.0 m (9'10") for Thumb	700 kg	1,540 lb
Track Shoe (Long/per two tracks)		
500 mm (20") Triple Grouser	1570 kg	3,460 lb
500 mm (20") Triple Grouser with Rubber Pad	2080 kg	4,590 lb
600 mm (24") Triple Grouser	1820 kg	4,010 lb
700 mm (28") Triple Grouser	2090 kg	4,610 lb
Blade		
2500 mm (8'2")	810 kg	1,790 lb
2600 mm (8'6")	810 kg	1,790 lb
2700 mm (8'10")	820 kg	1,810 lb

All weights are rounded up to nearest 10 kg and lb. Kg and lb were rounded up separately so some of the kg and lb do not match.

Base machine includes 75 kg (170 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

# 314E CR Hydraulic Excavator Specifications

## Operating Weight and Ground Pressure

	700 mm (28") Triple Grouser Shoes				600 mm (24") Triple Grouser Shoes				500 mm (20") Triple Grouser Shoes			
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
<b>Long Undercarriage without Blade, with Standard Counterweight</b>												
Reach Boom – 4.65 m (15'3")												
R3.0 m (9'10")	15 100	33,300	32.1	4.66	14 800	32,600	36.7	5.32	14 600	32,200	43.5	6.31
R2.8 m (9'2")	15 000	33,100	31.9	4.63	14 800	32,600	36.7	5.32	14 500	32,000	43.2	6.27
R2.5 m (8'2")	15 000	33,100	31.9	4.63	14 700	32,400	36.5	5.32	14 500	32,000	43.2	6.27
<b>Long Undercarriage with Blade, with Standard Counterweight</b>												
Reach Boom – 4.65 m (15'3")												
R3.0 m (9'10")	15 900	35,000	33.8	4.90	15 600	34,400	38.7	5.61	15 400	34,000	45.9	6.66
R2.8 m (9'2")	15 900	35,000	33.8	4.90	15 600	34,400	38.7	5.61	15 300	33,700	45.6	6.61
R2.5 m (8'2")	15 800	34,800	33.6	4.87	15 600	34,400	38.7	5.61	15 300	33,700	45.6	6.61
Power Offset Boom												
2.13 m (6'11")	16 500	36,400	35.1	5.09	16 200	35,700	40.2	5.83	15 900	35,000	47.4	6.87
<b>Long Undercarriage without Blade, with Heavy Counterweight</b>												
Reach Boom – 4.65 m (15'3")												
R3.0 m (9'10")	15 600	34,400	33.2	4.82	15 300	33,700	38.0	5.51	15 100	33,300	45.0	6.53
R2.8 m (9'2")	15 500	34,200	33.0	4.79	15 300	33,700	38.0	5.51	15 000	33,100	44.7	6.48
R2.5 m (8'2")	15 500	34,200	33.0	4.79	15 200	33,500	37.7	5.47	15 000	33,100	44.7	6.48
<b>Long Undercarriage with Blade, with Heavy Counterweight</b>												
Reach Boom – 4.65 m (15'3")												
R3.0 m (9'10")	16 400	36,200	34.9	5.06	16 100	35,500	40.0	5.80	15 900	35,100	47.4	6.87
R2.8 m (9'2")	16 400	36,200	34.9	5.06	16 100	35,500	40.0	5.80	15 800	34,800	47.1	6.83
R2.5 m (8'2")	16 300	35,900	34.7	5.03	16 100	35,500	40.0	5.80	15 800	34,800	47.1	6.83
Power Offset Boom												
2.13 m (6'11")	17 000	37,500	36.2	5.25	16 700	36,800	41.4	6.00	16 400	36,200	48.8	7.08

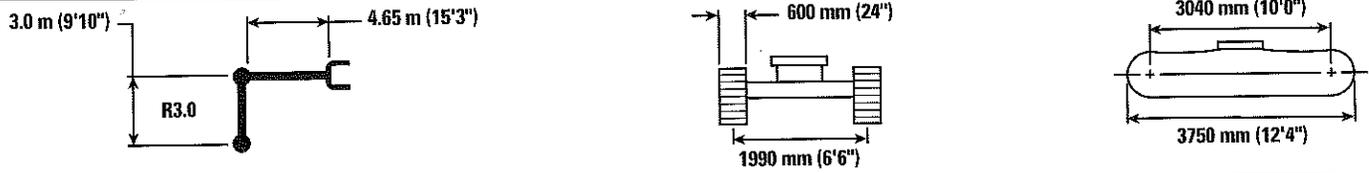
## Bucket and Stick Forces

Stick	Reach Boom 4.65 m (15'3")				Power Offset Boom				
	R3.0 m (9'10")		R2.8 m (9'2")		R2.5 m (8'2")		2.13 m (6'11")		
General Duty									
Bucket Digging Force (SAE)	85 kN	19,200 lbf	85 kN	19,200 lbf	85 kN	19,200 lbf	78 kN	17,500 lbf	
Stick Digging Force (SAE)	57 kN	12,800 lbf	60 kN	13,500 lbf	64 kN	14,300 lbf	61 kN	13,700 lbf	
Severe Duty									
Bucket Digging Force (SAE)	84 kN	18,800 lbf	83 kN	18,700 lbf	83 kN	18,700 lbf	77 kN	17,200 lbf	
Stick Digging Force (SAE)	57 kN	12,800 lbf	60 kN	13,400 lbf	63 kN	14,200 lbf	61 kN	13,700 lbf	

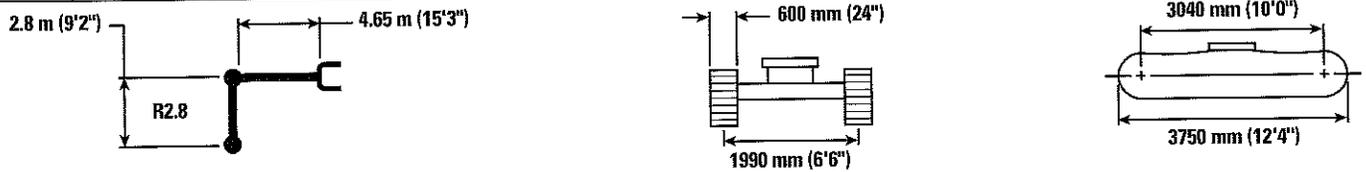
Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, 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.

# 314E CR Hydraulic Excavator Specifications

## Reach Boom Lift Capacities – Standard Counterweight: 3.06 mt (3.4 t) – Blade Down



		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m ft		
7.5 m 25.0 ft	kg lb					*2600	*2600					*2500 *5,600	*2500 *5,600	4.54 14.33
6.0 m 20.0 ft	kg lb					*3450 *7,550	*3450 *7,550	*2350	*2350			*2100 *4,650	*2100 *4,650	6.07 19.68
4.5 m 15.0 ft	kg lb					*3700 *8,050	*3700 *8,050	*3400 *7,400	2850 6,100			*2000 *4,350	*2000 *4,350	6.96 22.72
3.0 m 10.0 ft	kg lb			*5900 *12,700	*5900 *12,700	*4350 *9,450	4300 9,200	*3650 *7,900	2750 5,900			*2000 *4,350	1950 4,300	7.43 24.36
1.5 m 5.0 ft	kg lb			*8050 *17,350	7400 15,900	*5150 *11,150	4000 8,600	*3950 *8,550	2650 5,650			*2100 *4,550	1850 4,100	7.58 24.88
0.0 m 0.0 ft	kg lb			*7350 *16,950	6950 14,850	*5600 *12,100	3800 8,150	*4100 *8,850	2550 5,450			*2300 *5,050	1900 4,150	7.43 24.36
-1.5 m -5.0 ft	kg lb	*4550 *10,150	*4550 *10,150	*8050 *17,450	6800 14,600	*5400 *11,700	3700 7,900	*3900 *8,400	2500 5,350			*2700 *6,000	2050 4,500	6.94 22.73
-3.0 m -10.0 ft	kg lb	*7550 *16,950	*7550 *16,950	*6450 *13,950	*6450 *13,950	*4500 *9,650	3700 7,950	*2950	2500			*2850 *6,300	2500 5,500	6.04 19.71
-4.5 m -15.0 ft	kg lb			*3550 *7,350	*3550 *7,350							*2150 *4,500	*2150 *4,500	4.49 14.39



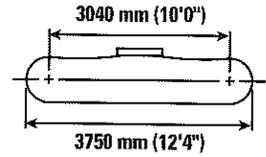
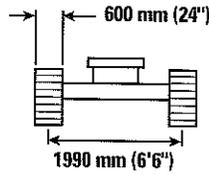
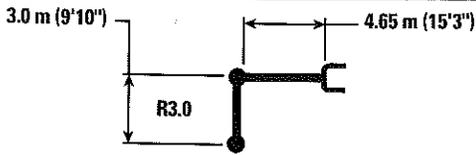
		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m ft		
7.5 m 25.0 ft	kg lb											*2750 *6,250	*2750 *6,250	4.21 13.20
6.0 m 20.0 ft	kg lb					*3650 *7,950	*3650 *7,950					*2300 *5,100	*2300 *5,100	5.83 18.88
4.5 m 15.0 ft	kg lb					*3850 *8,400	*3850 *8,400	*3500 *7,650	2850 6,100			*2150 *4,750	*2150 *4,750	6.75 22.03
3.0 m 10.0 ft	kg lb			*6300 *13,450	*6300 *13,450	*4550 *9,800	4250 9,150	*3750 *8,100	2750 5,900			*2150 *4,750	2050 4,500	7.24 23.72
1.5 m 5.0 ft	kg lb			*8300 *17,900	7350 15,750	*5300 *11,400	4000 8,600	*4000 *8,700	2650 5,700			*2250 *4,950	1950 4,250	7.39 24.26
0.0 m 0.0 ft	kg lb			*7050 *16,300	6950 14,900	*5650 *12,200	3800 8,150	*4150 *8,950	2550 5,500			*2500 *5,500	1950 4,300	7.23 23.73
-1.5 m -5.0 ft	kg lb	*4750 *10,600	*4750 *10,600	*7900 *17,100	6850 14,700	*5400 *11,650	3700 7,950	*3850 *8,300	2500 5,400			*3000 *6,600	2150 4,750	6.73 22.05
-3.0 m -10.0 ft	kg lb	*8100 *18,150	*8100 *18,150	*6200 *13,300	*6200 *13,300	*4350 *9,300	3750 8,000					*2900 *6,350	2650 5,900	5.80 18.91
-4.5 m -15.0 ft	kg lb											*2550 *5,600	*2550 *5,600	3.66



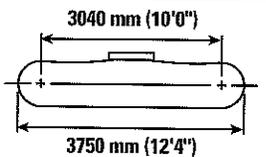
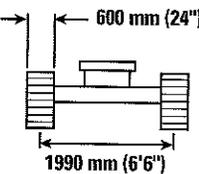
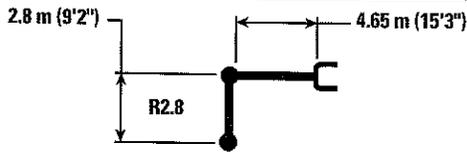
ISO 10567



# Reach Boom Lift Capacities – Heavy Counterweight: 3.56 mt (3.9 t) – Blade Down



Reach m ft	kg lb	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m ft
7.5 m 25.0 ft	kg lb					*2600 *2600				*2500 *5,600	*2500 *5,600	4.54 14.33
6.0 m 20.0 ft	kg lb					*3450 *7,550	*3450 *7,550	*2350 *2350		*2100 *4,650	*2100 *4,650	6.07 19.68
4.5 m 15.0 ft	kg lb					*3700 *8,050	*3700 *8,050	*3400 *7,400	3050 6,500	*2000 *4,350	*2000 *4,350	6.96 22.72
3.0 m 10.0 ft	kg lb			*5900 *12,700	*5900 *12,700	*4350 *9,450	*4350 *9,450	*3650 *7,900	2950 6,350	*2000 *4,350	*2000 *4,350	7.43 24.36
1.5 m 5.0 ft	kg lb			*8050 *17,350	7900 16,950	*5150 *11,150	4300 9,200	*3950 *8,550	2850 6,100	*2100 *4,550	2000 4,400	7.58 24.88
0.0 m 0.0 ft	kg lb			*7350 *16,950	*7350 15,950	*5600 *12,100	4050 8,750	*4100 *8,850	2750 5,850	*2300 *5,050	2050 4,450	7.43 24.36
-1.5 m -5.0 ft	kg lb	*4550 *10,150	*4550 *10,150	*8050 *17,450	7300 15,700	*5400 *11,700	3950 8,500	*3900 *8,400	2650 5,750	*2700 *6,000	2200 4,850	6.94 22.73
-3.0 m -10.0 ft	kg lb	*7550 *16,950	*7550 *16,950	*6450 *13,950	*6450 *13,950	*4500 *9,650	3950 8,550	*2950 8,550	2700	*2850 *6,300	2700 5,950	6.04 19.71
-4.5 m -15.0 ft	kg lb			*3550 *7,350	*3550 *7,350					*2150 *4,500	*2150 *4,500	4.49 14.39



Reach m ft	kg lb	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m ft
7.5 m 25.0 ft	kg lb									*2750 *6,250	*2750 *6,250	4.21 13.20
6.0 m 20.0 ft	kg lb					*3650 *7,950	*3650 *7,950			*2300 *5,100	*2300 *5,100	5.83 18.88
4.5 m 15.0 ft	kg lb					*3850 *8,400	*3850 *8,400	*3500 *7,650	3050 6,500	*2150 *4,750	*2150 *4,750	6.75 22.03
3.0 m 10.0 ft	kg lb			*6300 *13,450	*6300 *13,450	*4550 *9,800	*4550 *9,750	*3750 *8,100	2950 6,350	*2150 *4,750	*2150 *4,750	7.24 23.72
1.5 m 5.0 ft	kg lb			*8300 *17,900	7850 16,850	*5300 *11,400	4250 9,200	*4000 *8,700	2850 6,100	*2250 *4,950	2100 4,600	7.39 24.26
0.0 m 0.0 ft	kg lb			*7050 *16,300	*7050 15,950	*5650 *12,200	4050 8,750	*4150 *8,950	2750 5,900	*2500 *5,500	2150 4,650	7.23 23.73
-1.5 m -5.0 ft	kg lb	*4750 *10,600	*4750 *10,600	*7900 *17,100	7350 15,800	*5400 *11,650	4000 8,550	*3850 *8,300	2700 5,800	*3000 *6,600	2350 5,100	6.73 22.05
-3.0 m -10.0 ft	kg lb	*8100 *18,150	*8100 *18,150	*6200 *13,300	*6200 *13,300	*4350 *9,300	4000 8,600			*2900 *6,350	2850 6,350	5.80 18.91
-4.5 m -15.0 ft	kg lb									*2550 *2550	*2550 *2550	3.66

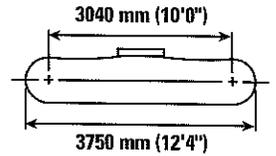
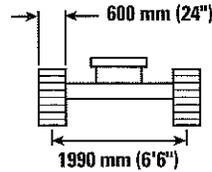
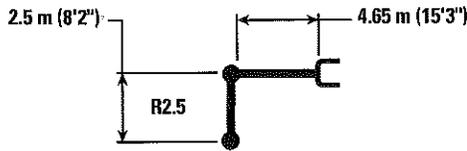


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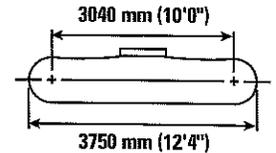
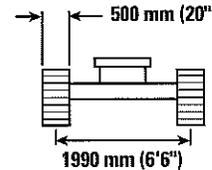
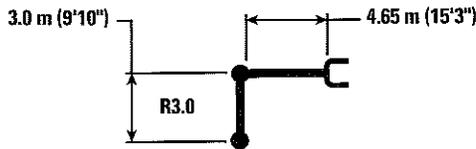


# 314E CR Hydraulic Excavator Specifications

## Reach Boom Lift Capacities – Heavy Counterweight: 3.56 mt (3.9 t) – Blade Down



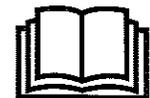
Reach Boom	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m	ft	
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb			
7.5 m 25.0 ft			*4450	*4450							*3050	*3050	3.74
6.0 m 20.0 ft					*3900	*3900					*2400	*2400	5.51
4.5 m 15.0 ft			*4550	*4550	*4100	*4100	*3700	3000			*2250	*2250	6.47
3.0 m 10.0 ft			*6800	*6800	*4750	4500	*3850	2950			*2250	*2250	6.98
1.5 m 5.0 ft			*7250	*7250	*5450	4250	*4100	2850			*2350	2200	7.14
0.0 m 0.0 ft			*6550	*6550	*5700	4100	*4150	2750			*2600	2250	6.97
-1.5 m -5.0 ft	*4950	*4950	*7600	7400	*5300	4000	*3750	2750			*3150	2500	6.45
-3.0 m -10.0 ft	*7600	*7600	*5700	*5700	*4050	*4050					*2900	*2900	5.47
	*16,350	*16,350	*12,250	*12,250	*8,600	*8,600					*6,300	*6,300	17.83



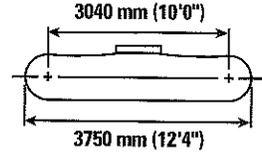
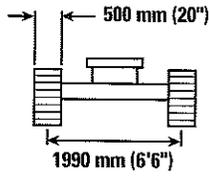
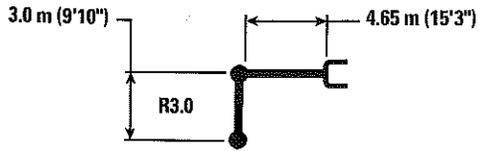
Reach Boom	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m	ft	
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb			
7.5 m 25.0 ft					*2600	*2600					*2500	*2500	4.54
6.0 m 20.0 ft					*3450	*3450	*2350	*2350			*2100	*2100	6.07
4.5 m 15.0 ft					*3700	*3700	*3400	2950			*2000	*2000	6.96
3.0 m 10.0 ft			*5900	*5900	*4350	*4350	*3650	2850			*2000	*2000	7.43
1.5 m 5.0 ft			*8050	7550	*5150	4100	*3950	2750	*2500	1950	*2100	1950	7.58
0.0 m 0.0 ft			*7350	7100	*5600	3900	*4100	2600			*2300	1950	7.43
-1.5 m -5.0 ft	*4550	*4550	*8050	7000	*5400	3800	*3900	2550			*2700	2100	6.94
-3.0 m -10.0 ft	*7550	*7550	*6450	*6450	*4500	3800	*2950	2600			*2850	2550	6.04
-4.5 m -15.0 ft	*16,950	*16,950	*13,950	*13,950	*9,650	8,200					*6,300	5,700	19.71
			*3550	*3550							*2150	*2150	4.49
			*7,350	*7,350							*4,500	*4,500	14.39

\*

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## Reach Boom Lift Capacities – Heavy Counterweight: 3.56 mt (3.9 t) – Blade Down with Rubber Pad



		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		m ft		
7.5 m 25.0 ft	kg lb					*2600 *2600						*2500 *5,600	*2500 *5,600	4.54 14.33
6.0 m 20.0 ft	kg lb					*3450 *7,550	*3450 *7,550	*2350 *2350				*2100 *4,650	*2100 *4,650	6.07 19.68
4.5 m 15.0 ft	kg lb					*3700 *8,050	*3700 *8,050	*3400 *7,400	3000 6,500			*2000 *4,350	*2000 *4,350	6.96 22.72
3.0 m 10.0 ft	kg lb			*5900 *12,700	*5900 *12,700	*4350 *9,450	*4350 *9,450	*3650 *7,900	2950 6,300			*2000 *4,350	*2000 *4,350	7.43 24.36
1.5 m 5.0 ft	kg lb			*8050 *17,350	7800 16,750	*5150 *11,150	4250 9,150	*3950 *8,550	2800 6,050	*2500 2050		*2100 *4,550	2000 4,400	7.58 24.88
0.0 m 0.0 ft	kg lb			*7350 *16,950	*7350 15,750	*5600 *12,100	4050 8,650	*4100 *8,850	2700 5,800			*2300 *5,050	2000 4,450	7.43 24.36
-1.5 m -5.0 ft	kg lb	*4550 *10,150	*4550 *10,150	*8050 *17,450	7250 15,500	*5400 *11,700	3950 8,450	*3900 *8,400	2650 5,700			*2700 *6,000	2200 4,850	6.94 22.73
-3.0 m -10.0 ft	kg lb	*7550 *16,950	*7550 *16,950	*6450 *13,950	*6450 *13,950	*4500 *9,650	3950 8,450	*2950 2700				*2850 *6,300	2650 5,900	6.04 19.71
-4.5 m -15.0 ft	kg lb			*3550 *7,350	*3550 *7,350							*2150 *4,500	*2150 *4,500	4.49 14.39



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# 314E CR Hydraulic Excavator Specifications

## Work Tool Offering Guide\*

Boom Type	Reach Boom		
	R3.0 m (9'10")	R2.8 m (9'2")	R2.5 m (8'2")
Stick Size			
Hydraulic Hammer	H110Es H115Es	H110Es H115Es	H110Es H115Es
Mobile Scrap and Demolition Shear	S320B**	S320B**	S320B**
Compactor (Vibratory Plate)	CVP75	CVP75	CVP75
Contractors' Grapple	G112B	G112B	G112B
Trash Grapple			
Thumbs			
Rakes			
Center-Lock Pin Grabber Coupler			

These work tools are available for the 314E CR.  
Consult your Cat dealer for proper match.

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

\*\*Boom Mount.

## Bucket Specifications and Compatibility

	Width		Capacity		Weight		Fill	Reach Booms				POB**
	mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		kg	lb	kg	lb	
<b>Without Quick Coupler</b>												
General Duty (GD)	450	18	0.20	0.27	276	608	100	●	●	●	●	●
	600	24	0.31	0.40	326	719	100	●	●	●	●	●
	750	30	0.41	0.54	374	823	100	●	●	●	●	●
	900	36	0.53	0.69	423	932	100	●	●	●	●	●
	1050	42	0.65	0.84	469	1,034	100	⊙	⊙	●	⊖	x
	1200	48	0.76	1.00	510	1,125	100	x	x	x	x	x
Severe Duty (SD)	600	24	0.31	0.40	367	810	90	●	●	●	●	●
	750	30	0.41	0.54	425	936	90	●	●	●	●	●
	900	36	0.53	0.69	483	1,065	90	●	●	●	●	●
	1050	42	0.65	0.84	529	1,166	90	⊙	●	●	⊖	x
Maximum load pin-on (payload + bucket)							kg	1605	1690	1815	1555	2275
							lb	3,537	3,725	4,000	3,427	5,014

	Width		Capacity		Weight		Fill	Reach Booms				POB**
	mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		kg	lb	kg	lb	
<b>With Center-Lock Quick Coupler</b>												
General Duty (GD)	450	18	0.20	0.27	276	608	100	●	●	●	●	●
	600	24	0.31	0.40	326	719	100	●	●	●	●	●
	750	30	0.41	0.54	374	823	100	●	●	●	●	●
	900	36	0.53	0.69	423	932	100	⊙	⊙	●	⊖	●
	1050	42	0.65	0.84	469	1,034	100	○	⊖	⊖	○	●
	1200	48	0.76	1.00	510	1,125	100	◇	○	○	◇	⊙
Severe Duty (SD)	600	24	0.31	0.40	367	810	90	●	●	●	●	●
	750	30	0.41	0.54	425	936	90	●	●	●	●	●
	900	36	0.53	0.69	483	1,065	90	⊙	●	●	○	●
	1050	42	0.65	0.84	529	1,166	90	⊖	⊖	⊙	○	●
Maximum load with coupler (payload + bucket)							kg	1359	1444	1569	1309	2029
							lb	2,996	3,183	3,459	2,885	4,472

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 Long tips.

\*Densities with 3.0 m (9'10") thumb stick do not consider thumb weight.

\*\*POB installs blade as standard configuration.

### Maximum Material Density:

- 2100 kg/m<sup>3</sup> (3,500 lb/yd<sup>3</sup>)
- ⊙ 1800 kg/m<sup>3</sup> (3,000 lb/yd<sup>3</sup>)
- ⊖ 1500 kg/m<sup>3</sup> (2,500 lb/yd<sup>3</sup>)
- 1200 kg/m<sup>3</sup> (2,000 lb/yd<sup>3</sup>)
- ◇ 900 kg/m<sup>3</sup> (1,500 lb/yd<sup>3</sup>)
- x Not recommended

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.

# 314E CR Standard Equipment

## Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

### CAB

- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- Removable lower windshield with in cab storage bracket
- Coat hook
- Beverage holder
- Literature holder
- AM/FM radio
- Radio with MP3 auxiliary audio port
- Two stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with indicators, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing additional pedal
- Power outlets, 5 amp
- Travel alarm
- Laminated glass front upper window and tempered other windows

### ELECTRICAL

- 80 amp alternator
- Circuit breaker
- Capability to electrically connect a beacon

### ENGINE

- C4.4 diesel engine
- Biodiesel capable
- Meets EPA Tier 4 Interim emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- Automatic engine speed control
- Economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- Radial seal air filter
- Primary filter with water separator and water separator indicator
- Secondary filter
- Screen filter in fuel line
- Variable speed fan with viscous clutch

### HYDRAULIC SYSTEM

- Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Fine swing control

### LIGHTS

- Halogen boom light (left side)
- Time delay function for boom light and cab light
- Exterior light

### UNDERCARRIAGE

- Center track guiding guard
- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

### SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Rear window for emergency exit
- Guard, travel motor protection
- Guard rail
- Rearview camera-ready

## Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

### CAB

- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Right pedal
- Rain protector
- Cab mirror
- Ashtray

### COUNTERWEIGHT

- 3.06 mt (3.4 t) without lifting eye
- 3.56 mt (3.9 t) without lifting eye

### ELECTRICAL

- Cold weather battery -25° C (-13° F)
- Jump start receptacle

### ENGINE

- Quick drains, engine and hydraulic oil

### FRONT LINKAGE

- Quick coupler
- Bucket linkage
- 4.65 m (15'3") Reach Boom
- Power Offset Boom
- 2.13 m (6'11") stick for Power Offset Boom
- 2.5 m (8'2") stick
- 2.8 m (9'2") stick
- 3.0 m (9'10") stick
- 3.0 m (9'10") thumb-ready stick

### HYDRAULIC SYSTEM

- Control pattern quick-changer, two way
- Auxiliary hydraulics
- Boom and stick lines
- High-pressure line
- Medium-pressure line
- Quick coupler line
- Boom lowering and stick lowering control device
- Cat Bio hydraulic oil

### LIGHTS

- Working light, cab mounted with time delay
- HID light, cab mounted with time delay
- Halogen boom lights (right side)

### UNDERCARRIAGE

- 500 mm (20") triple grouser shoes
- 600 mm (24") triple grouser shoes
- 700 mm (28") triple grouser shoes
- Rubber pad for 500 mm (20") triple grouser shoes
- 2500 mm (8'2") blade with replaceable cutting edge
- 2600 mm (8'6") blade with replaceable cutting edge
- 2700 mm (8'10") blade with replaceable cutting edge
- Swivel guard

### SECURITY

- FOGS, bolt-on
- Guard, cab front, mesh
- Guard, vandalism
- Security system fitted (MSS)
- Bottom guards, heavy duty
- Rearview camera

### TECHNOLOGY

- Cat Grade Control Depth and Slope
- Product Link