

# 335 Hydraulic Excavator Specifications

## Engine

Engine Model	Cat® C7.1	
Net Power		
ISO 9249	203.7 kW	273 hp
ISO 9249 (DIN)	277 hp (metric)	
Engine Power		
ISO 14396	205 kW	275 hp
ISO 14396 (DIN)	279 hp (metric)	
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in <sup>3</sup>
Biodiesel Capability	Up to B20 <sup>(1)</sup>	

- Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- No engine power derating required below 3,000 m (9,840 ft) altitude. 4600 m (15,090 ft) altitude with engine power derate.
- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.
- Engine speed at 2,200 rpm.

<sup>(1)</sup>Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels\*\* up to:

- ✓ 20% biodiesel FAME (fatty acid methyl ester)\*
- ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

*\*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

*\*\*Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

## Swing Mechanism

Swing Speed*	10.8 rpm	
Maximum Swing Torque	107.7 kN·m	79,455 lbf·ft

\*For CE-marked machine default value may be set lower.

## Weights

Operating Weight	36 200 kg	79,900 lb
• Long undercarriage Reach boom, R3.2 (10'6") stick, HD 1.54 m <sup>3</sup> (2.01 yd <sup>3</sup> ) bucket, 850 mm (33") triple grouser shoes and 7.7 mt (16,980 lb) counterweight.		
Operating Weight	36 300 kg	80,000 lb
• Long undercarriage Reach boom, R3.2 (10'6") stick, HD 1.54 m <sup>3</sup> (2.01 yd <sup>3</sup> ) bucket, 850 mm (33") triple grouser shoes, 5.0 mt (11,202 lb) counterweight and 3600 mm (11'10") blade.		
Operating Weight	35 000 kg	77,200 lb
• Long undercarriage Reach boom, R3.2 (10'6") stick, HD 1.54 m <sup>3</sup> (2.01 yd <sup>3</sup> ) bucket, 600 mm (24") triple grouser shoes and 7.7 mt (16,980 lb) counterweight.		
Operating Weight	34 900 kg	77,000 lb
• Long undercarriage Reach boom, R3.2 (10'6") stick, HD 1.54 m <sup>3</sup> (2.01 yd <sup>3</sup> ) bucket, 600 mm (24") triple grouser shoes, 5.0 mt (11,202 lb) counterweight and 3440 mm (11'3") blade.		

## Track

Optional Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	700 mm	28 in
Optional Track Shoes Width	850 mm	33 in
Number of Shoes (each side)	49	
Number of Track Rollers (each side)	8	
Number of Carrier Rollers (each side)	2	

## Drive

Maximum Gradeability	35°/70%	
Maximum Travel Speed	4.7 km/h	2.9 mph
Maximum Drawbar Pull	303 kN	68,117 lbf

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## Hydraulic System

Main System – Maximum Flow – Implement	560 L/min (280 × 2 pumps)	148 gal/min (74 × 2 pumps)
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Equipment – Heavy Lift Mode/Auto Dig Boost	38 000 kPa	5,510 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	28 800 kPa	4,175 psi
Auxiliary Pump – Maximum Flow (optional)	54 L/min	14 gal/min
Auxiliary Pump – Maximum Pressure (optional)	14 000 kPa	2,030 psi
Auxiliary Pump for Blade – Maximum Flow (optional)	77 L/min	20 gal/min
Auxiliary Pump for Blade – Maximum Pressure (optional)	24,500 kPa	3,553 psi
Boom Cylinder – Bore	140 mm	5.5 in
Boom Cylinder – Stroke	1407 mm	55.4 in
Stick Cylinder – Bore	160 mm	6.3 in
Stick Cylinder – Stroke	1646 mm	64.8 in
Bucket Cylinder – Bore	145 mm	5.7 in
Bucket Cylinder – Stroke	1156 mm	45.5 in

## Service Refill Capacities

Fuel Tank Capacity	368 L	97.2 gal
Cooling System	13 L	3.3 gal
Engine Oil	25 L	6.6 gal
Swing Drive	11 L	2.9 gal
Final Drive (each)	7 L	1.8 gal
Hydraulic System (including tank)	350 L	92.5 gal
Hydraulic Tank	154 L	40.7 gal
Diesel Exhaust Fluid (DEF) Tank	26 L	7 gal

## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.9 kg of refrigerant, which has a CO<sub>2</sub> equivalent of 1.287 metric tonnes.

## Standards

Brakes	ISO 10265:2008
Cab/Rollover Protective Structure (ROPS)	ISO 12117-2:2008
Cab/Operator Protective Guards (OPG) (optional)	ISO 10262:1998 Level II

## Sound Performance

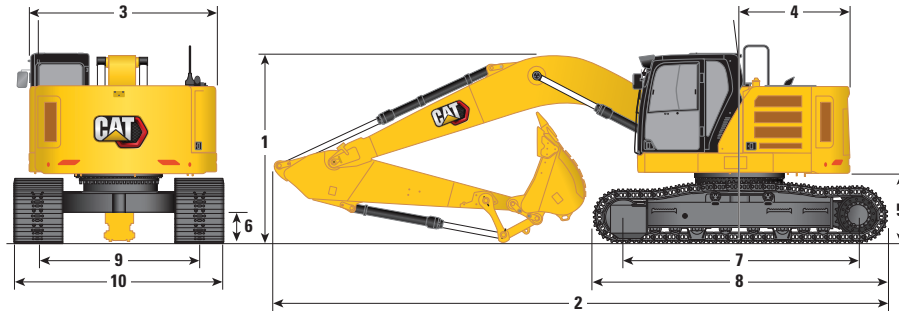
ISO 6395:2008 (external)	104 dB(A)
ISO 6396:2008 (inside cab)	71 dB(A)

- 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 a noisy environment.

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## Dimensions

All dimensions are approximate and may vary depending on bucket selection.



Boom Option	Reach Boom 6.15 m (20'2")			
	Stick Options		Reach Stick	
	R3.2CB2 (10'6")		R3.75CB2 (12'4")	
<b>1 Machine Height:</b>				
Cab Height	3270 mm	10'9"	3270 mm	10'9"
Top of Global Navigation Satellite System (GNSS) Antenna Height (if installed)	2780 mm	9'1"	2780 mm	9'1"
OPG Height	3420 mm	11'2"	3420 mm	11'2"
Handrail Height	3430 mm	11'3"	3430 mm	11'3"
With Boom/Stick/Bucket/QC Installed	3580 mm <sup>(1)</sup>	11'9" <sup>(1)</sup>	3690 mm	12'1"
With Boom/Stick/Bucket Installed	3400 mm	11'2"	3690 mm	12'2"
With Boom/Stick Installed	3320 mm	10'11"	3530 mm	11'7"
With Boom Installed	2800 mm	9'2"	2800 mm	9'2"
<b>2 Machine Length:</b>				
With Boom/Stick/Bucket/QC Installed	9850 mm <sup>(2)</sup>	32'4" <sup>(2)</sup>	9870 mm	32'5"
With Boom/Stick/Bucket Installed	9830 mm	32'3"	9870 mm	32'5"
With Boom/Stick Installed	9810 mm	32'2"	9860 mm	32'4"
With Boom Installed	8580 mm	28'2"	8580 mm	28'2"
Track Length	5030 mm	16'6"	5030 mm	16'6"
Track Length (with blade)	5740 mm	18'10"	5740 mm	18'10"
<b>3 Upperframe Width</b>	3250 mm	10'8"	3250 mm	10'8"
<b>4 Tail Swing Radius</b>	1900 mm	6'3"	1900 mm	6'3"
<b>5 Counterweight Clearance</b>	1170 mm	3'10"	1170 mm	3'10"
<b>6 Ground Clearance</b>	480 mm	1'7"	480 mm	1'7"
<b>7 Track Length:</b>				
Length to Center of Rollers	4040 mm	13'3"	4040 mm	13'3"
<b>8 Crawler Overall Length</b>	5030 mm	16'6"	5030 mm	16'6"
<b>9 Track Gauge</b>	2740 mm	9'0"	2740 mm	9'0"
<b>10 Machine Width:</b>				
600 mm (24") Shoes	3340 mm	10'11"	3340 mm	10'11"
700 mm (28") Shoes	3440 mm	11'3"	3440 mm	11'3"
850 mm (33") Shoes	3590 mm	11'9"	3590 mm	11'9"
Machine Width with Blade:				
With 3440 mm (11'3") Blade	3440 mm	11'3"	3440 mm	11'3"
With 3600 mm (11'10") Blade	3600 mm	11'10"	3600 mm	11'10"
Bucket Type	HD		HD	
Bucket Capacity	1.54 m <sup>3</sup> <sup>(3)</sup>	2.01 yd <sup>3</sup> <sup>(3)</sup>	1.54 m <sup>3</sup> <sup>(3)</sup>	2.01 yd <sup>3</sup> <sup>(3)</sup>
Bucket Tip Radius	1662 mm	5'5"	1662 mm	5'5"

<sup>(1)</sup>3520 mm (11'7") for 335 models sold in Europe

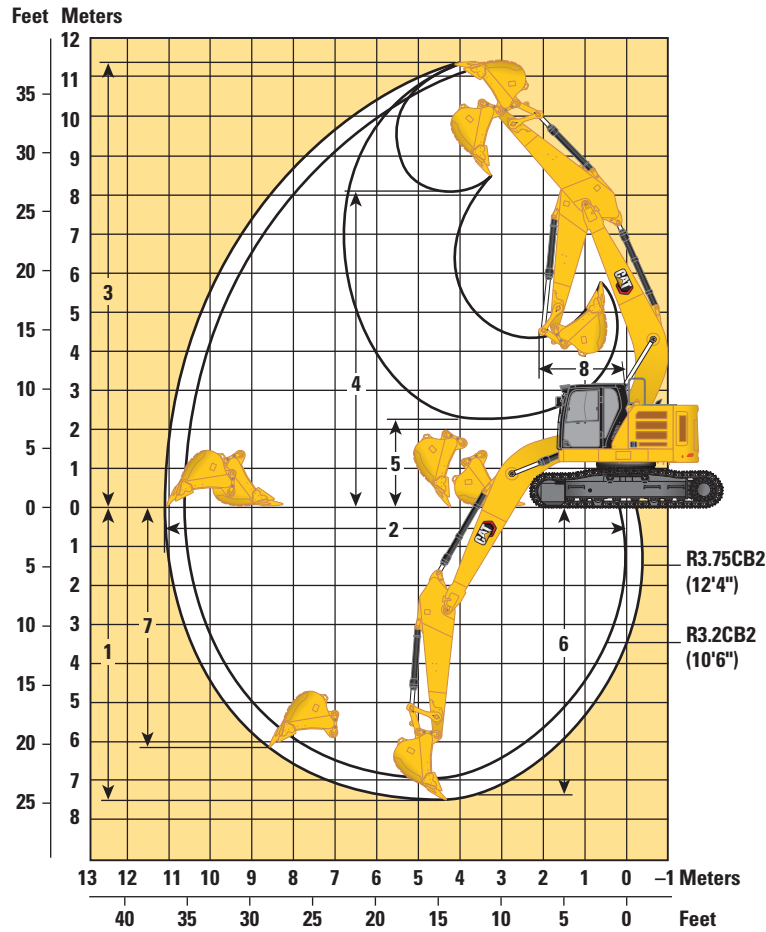
<sup>(2)</sup>9830 mm (32'3") for 335 models sold in Europe

<sup>(3)</sup>1.76 m<sup>3</sup> (2.30 yd<sup>3</sup>) for 335 models sold in Europe

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## Working Ranges and Forces

All dimensions are approximate and may vary depending on bucket selection.

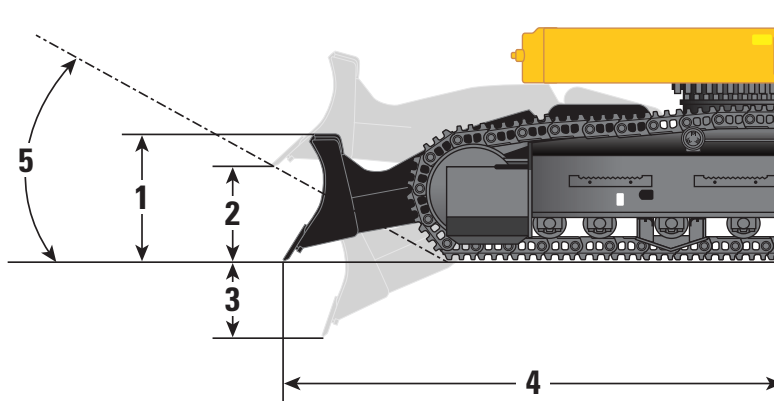


Boom Option	Reach Boom 6.15 m (20'2")			
	Stick Options		Reach Stick	
	R3.2CB2 (10'6")		R3.75CB2 (12'4")	
1 Maximum Digging Depth	6990 mm	22'11"	7540 mm	24'9"
2 Maximum Reach at Ground Line	10 640 mm	34'11"	11 150 mm	36'7"
3 Maximum Cutting Height	11 150 mm	36'7"	11 400 mm	37'5"
4 Maximum Loading Height	7960 mm	26'1"	8220 mm	27'0"
5 Minimum Loading Height	2910 mm	9'7"	2370 mm	7'9"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6840 mm	22'5"	7400 mm	24'3"
7 Maximum Vertical Wall Digging Depth	5790 mm	19'0"	6230 mm	20'5"
8 Minimum Working Equipment Radius	3410 mm	11'2"	3450 mm	11'4"
Bucket Digging Force	207 kN	46,482 lbf	207 kN	46,482 lbf
Stick Digging Force	144 kN	32,319 lbf	130 kN	29,207 lbf
Bucket Digging Force (ISO) – Auto Dig Boost	224 kN	50,466 lbf	224 kN	50,466 lbf
Stick Digging Force (ISO) – Auto Dig Boost	156 kN	35,089 lbf	141 kN	37,711 lbf
Bucket Type	HD		HD	
Bucket Capacity	1.54 m <sup>3</sup>	2.01 yd <sup>3</sup>	1.54 m <sup>3</sup>	2.01 yd <sup>3</sup>
Bucket Tip Radius	1662 mm	5'5"	1662 mm	5'5"

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## Blade Dimensions

All dimensions are approximate.

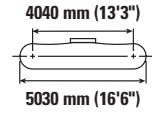
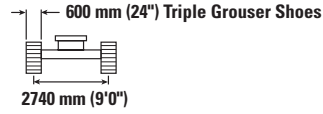
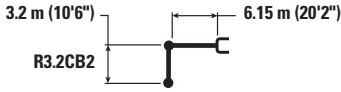


Blade Options	3440 mm (11'3")		3600 mm (11'10")	
<b>Track Shoe Width</b>	<b>600 mm (24")/700 mm (28")</b>		<b>850 mm (33")</b>	
<b>1</b> Blade Moldboard Height	840 mm	2'9"	840 mm	2'9"
<b>2</b> Blade Maximum Cutting Edge Rise	470 mm	1'6"	470 mm	1'6"
<b>3</b> Blade Minimum Cutting Edge Depth	240 mm	10"	240 mm	10"
<b>4</b> Blade Edge from Machine Center	3220 mm	10'7"	3220 mm	10'7"
<b>5</b> Ramp Angle	20.8°		20.8°	
Blade Down Force – Ground Level	175 kN	39.3 klpf	175 kN	39.3 klpf
Blade Down Force – Maximum	179.8 kN	40.4 klpf	179.8 kN	40.4 klpf

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## Reach Boom Lift Capacities – Counterweight: 7.7 mt (16,980 lb) – without Bucket, Heavy Lift: On

Long Undercarriage



		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		9.0 m/30.0 ft		m ft/in		
9.0 30'0"	kg lb							*7450	*7450					*7250 *16,150	*7250 *16,150	6.04 19'3"
7.5 m 25.0 ft	kg lb							*8000 *17,600	*8000 *17,600					*6500 *14,450	6150 13,800	7.44 24'1"
6.0 m 20.0 ft	kg lb							*8500 *18,450	*8500 *18,450	*7950 *17,400	6050 12,950			*6250 *13,800	5050 11,200	8.33 27'2"
4.5 m 15.0 ft	kg lb			*16 950 *35,950	*16 950 *35,950	*11 750 *25,250	*11 750 *25,250	*9550 *20,700	8300 17,900	*8400 *18,250	5900 12,650			*6250 *13,800	4450 9,850	8.88 29'0"
3.0 m 10.0 ft	kg lb					*14 550 *31,300	12 100 26,100	*10 850 *23,500	7900 17,000	8850 19,050	5650 12,200	6700 *14,300	4300 9,200	*6450 *14,200	4150 9,150	9.16 30'0"
1.5 m 5.0 ft	kg lb					*16 500 *35,700	11 350 24,450	*11 950 *25,850	7500 16,150	8650 18,600	5450 11,750	6600 14,150	4200 9,000	6400 14,100	4050 8,950	9.17 30'1"
0 m 0 ft	kg lb			*7250 *16,550	*7250 *16,550	*17 050 *36,900	11 000 23,650	11 900 25,500	7250 15,600	8500 18,250	5300 11,450			6600 14,500	4150 9,150	8.94 29'3"
-1.5 m -5.0 ft	kg lb	*8950 *20,000	*8950 *20,000	*13 550 *30,750	*13 550 *30,750	*16 350 *35,450	10 950 23,450	11 750 25,250	7150 15,350	8400 18,100	5250 11,300			7150 15,750	4500 9,950	8.43 27'7"
-3.0 m -10.0 ft	kg lb			*19 600 *42,450	*19 600 *42,450	*14 600 *31,550	11 050 23,700	*11 100 *23,900	7200 15,450	*8200 18,000	5300			*8000 *17,650	5250 11,650	7.59 24'9"
-4.5 m -15.0 ft	kg lb			*14 650 *31,350	*14 650 *31,350	*11 300 *24,050	*11 300 *24,050	*8200 *16,950	7400 16,050					*7500 *16,350	7000 15,700	6.28 20'3"



ISO 10567:2007



\* 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 with ±5% for all available track shoes.

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