

333Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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Engine		
Engine Model	Cat® C7.1	
Net Power		
ISO 9249	193.8 kW	260 hp
ISO 9249 (DIN)	263 hp (metri	ic)
Engine Power		
ISO 14396	195 kW	261 hp
ISO 14396 (DIN)	265 hp (metri	ic)
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in ³
Biodiesel Capability	Up to B20 ⁽¹⁾	

- Cat C7.1 engine emits equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Recommended for use up to 4500 m (14,764 ft) altitude with engine power derate above 3000 m (9,842.5 ft).
- 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 2,000 rpm.
- (1) Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels** up to:
 - ✓ 100% 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.

*For use of blends higher than 20% biodiesel, consult your Cat dealer.
**Tailpipe greenhouse gas emissions from lower-carbon intensity fuels

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

Swing Mechanism		
Swing Speed*	11.5 rpm	
Maximum Swing Torque	111 kN·m	81,869 lbf·ft

^{*}For CE-marked machine default value may be set lower.

Weights			
Operating Weight	32 600 kg	71,800 lb	

• Heavy Duty (HD) Reach boom, HD R3.2 (10'6") stick, HD 1.88 m³ (2.46 yd³) bucket, 600 mm (24") triple grouser shoes, and 7700 kg (16,980 lb) counterweight.

Track		
Optional Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	800 mm	31 in
Number of Shoes (each side)	50	
Number of Track Rollers (each side)	9	
Number of Carrier Rollers (each side)	2	
Drive		
Gradeability	35°/70%	
Maximum Travel Speed	5.9 km/h	3.7 mph
Maximum Drawbar Pull	248 kN	55,820 lbf
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 – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	29 800 kPa	4,321 psi
Boom Cylinder – Bore	140 mm	6 in
Boom Cylinder – Stroke	1407 mm	55 in
Stick Cylinder – Bore	160 mm	6 in
Stick Cylinder – Stroke	1646 mm	65 in
Bucket Cylinder – Bore	145 mm	6 in
Bucket Cylinder – Stroke	1151 mm	45 in
Service Refill Capacities		
Fuel Tank Capacity	474 L	125.2 gal
Cooling System	25 L	6.6 gal
Engine Oil (with fitter)	25 I	6.6.001

Service Refill Capacities		
Fuel Tank Capacity	474 L	125.2 gal
Cooling System	25 L	6.6 gal
Engine Oil (with filter)	25 L	6.6 gal
Swing Drive	11.5 L	3.0 gal
Final Drive (each)	4.5 L	1.2 gal
Hydraulic System (including tank)	310 L	81.9 gal
Hydraulic Tank	147 L	38.8 gal
(including suction pipe)		

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)	103 dB(A)	
ISO 6396:2008 (inside cab)	73 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.

Operating Weights and Ground Pressures

		m (24") user Shoes		m (24") ouser Shoes	800 mm (31") Triple Grouser Shoes	
Base Machine Configurations	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure
Base Frame with Track Rollers and Carrier Rollers						
7700 kg (16,980 lb) Counterweight and Long Undercarriage Base Machine						
HD Reach Boom + HD R3.2 (10'6") Stick + 1.88 m ³ (2.46 yd ³) HD Bucket	32 600 (71,800)	62 (9.0)	32 900 (72,600)	63 (9.1)	33 500 (73,900)	48 (6.9)
HD Reach Boom + HD R2.8 (9'2") Stick + 1.88 m ³ (2.46 yd ³) HD Bucket	32 500 (71,600)	62 (9.0)	32 800 (72,400)	62 (9.0)	33 500 (73,700)	48 (6.9)

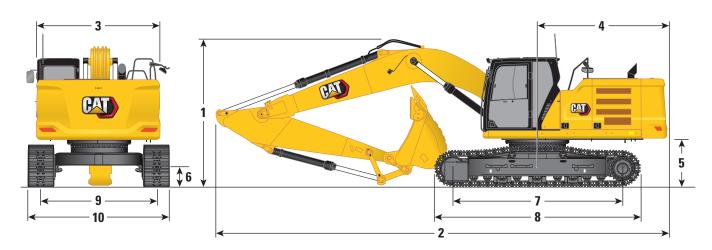
All operating weights include a 90% fuel tank with 75 kg (165 lb) operator.

Major Component Weights

and two boom cylinders – does not include boom, stick, bucket, stick cylinder, bucket cylinders, tracks, fuel tank and operator) Track Shoes: 600 mm (24") Width, 11 mm (0.43") Thick, Triple Grouser Track Shoes 600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes 800 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension 4610 10,160 Two Boom Cylinders 500 1,100 Weight of 90% Fuel Tank and 75 kg (165 lb) Operator Counterweight: 7700 kg (16,980 lb) Counterweight 7700 kg (16,980 lb) Counterweight 80.55 m (18'2") HD Reach Boom 10.2 m (33'6") Super Long Reach Boom Sticks (including lines, pins, bucket cylinder, bucket linkage): R2.8DB (9'2") HD Reach Stick R3.2DB (10'6") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick		kg	lb
600 mm (24") Width, 11 mm (0.43") Thick, Triple Grouser Track Shoes 3650 8,040 600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes 3980 8,770 800 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension 4610 10,160 Two Boom Cylinders 500 1,100 Weight of 90% Fuel Tank and 75 kg (165 lb) Operator 470 1,040 Counterweight: 7700 kg (16,980 lb) Counterweight 7700 16,970 Booms (including lines, pins, stick cylinder): 2770 6,110 5.55 m (18'2") Mass Boom 2790 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): 8290 5,270 R2.8DB (9'2") HD Reach Stick 1780 3,920 R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1780 3,930 SLR7.85A (25'9") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,400 Buckets (without linkage, with tips and side cutters): 164 m³ (2.15 yd³) Severe	Base Machine Weight (with 7700 kg [16,980 lb] counterweight, upper frame, long undercarriage with track rollers and two boom cylinders – does not include boom, stick, bucket, stick cylinder, bucket cylinders, tracks, fuel tank and operator)	22 130	48,770
600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes 3980 8,770 800 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension 4610 10,160 Two Boom Cylinders 500 1,100 Weight of 90% Fuel Tank and 75 kg (165 lb) Operator 470 1,040 Counterweight: 7700 kg (16,980 lb) Counterweight 7700 16,970 Booms (including lines, pins, stick cylinder): 2770 6,110 5.55 m (18'2") HD Reach Boom 2770 6,110 5.55 m (18'2") Mass Boom 2390 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): 82.80B (9'2") HD Reach Stick 1780 3,920 R2.8DB (9'2") HD Reach Stick 1870 4,120 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 5LR7.85A (25'9") Super Long Reach (5LR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1580 3,400 1.88 m³ (2.46 yd³) HD, DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) Bl, D, DB Linkage <td>Track Shoes:</td> <td></td> <td></td>	Track Shoes:		
R00 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension 4610 10,160 Two Boom Cylinders 500 1,100 Weight of 90% Fuel Tank and 75 kg (165 lb) Operator 470 1,040 Counterweight:	600 mm (24") Width, 11 mm (0.43") Thick, Triple Grouser Track Shoes	3650	8,040
Two Boom Cylinders 500 1,100 Weight of 90% Fuel Tank and 75 kg (165 lb) Operator 470 1,040 Counterweight: 7700 kg (16,980 lb) Counterweight 7700 16,970 Booms (including lines, pins, stick cylinder): 6.15 m (20'2") HD Reach Boom 2770 6,110 5.55 m (18'2") Mass Boom 2390 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1580 3,480 Buckets (without linkage, with tips and side cutters): 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 </td <td>600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes</td> <td>3980</td> <td>8,770</td>	600 mm (24") Width, 14.5 mm (0.57") Thick, Double Grouser Track Shoes	3980	8,770
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator 470 1,040 Counterweight: 7700 kg (16,980 lb) Counterweight 7700 16,970 Booms (including lines, pins, stick cylinder): 2770 6,110 6.15 m (20'2") HD Reach Boom 2390 5,270 5.55 m (18'2") Mass Boom 2390 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): 1780 3,920 R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	800 mm (31") Width, 13 mm (0.51") Thick, Triple Grouser Track Shoes with Step Extension	4610	10,160
Counterweight: 7700 kg (16,980 lb) Counterweight 7700 l6,970 Booms (including lines, pins, stick cylinder): 5.55 m (18'2") HD Reach Boom 2770 l6,110 5.55 m (18'2") Mass Boom 2390 l5,270 10.2 m (33'6") Super Long Reach Boom 3250 l7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): 1780 l3,920 R2.8DB (9'2") HD Reach Stick 1780 l4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 l3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 l3,480 Buckets (without linkage, with tips and side cutters): 164 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 l8,000 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 l680 l790 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 l680 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 l860	Two Boom Cylinders	500	1,100
To To New Content To New To	Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	470	1,040
Booms (including lines, pins, stick cylinder): 6.15 m (20'2") HD Reach Boom 2770 6,110 5.55 m (18'2") Mass Boom 2390 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick (with rebar) 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1770 3,900 1.88 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	Counterweight:		
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5.55 m (18'2") Mass Boom 2390 5,270 10.2 m (33'6") Super Long Reach Boom 3250 7,160 Sticks (including lines, pins, bucket cylinder, bucket linkage): R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 164 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	Booms (including lines, pins, stick cylinder):		
10.2 m (33'6") Super Long Reach Boom 3250 7,160	6.15 m (20'2") HD Reach Boom	2770	6,110
Sticks (including lines, pins, bucket cylinder, bucket linkage): R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	5.55 m (18'2") Mass Boom	2390	5,270
R2.8DB (9'2") HD Reach Stick 1780 3,920 R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	10.2 m (33'6") Super Long Reach Boom	3250	7,160
R3.2DB (10'6") HD Reach Stick 1870 4,120 M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	Sticks (including lines, pins, bucket cylinder, bucket linkage):		
M2.5DB (8'2") Mass Stick (with rebar) 1730 3,800 SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	R2.8DB (9'2") HD Reach Stick	1780	3,920
SLR7.85A (25'9") Super Long Reach (SLR) Stick 1580 3,480 Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	R3.2DB (10'6") HD Reach Stick	1870	4,120
Buckets (without linkage, with tips and side cutters): 1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	M2.5DB (8'2") Mass Stick (with rebar)	1730	3,800
1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage 1770 3,900 1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	SLR7.85A (25'9") Super Long Reach (SLR) Stick	1580	3,480
1.88 m³ (2.46 yd³) HD, DB Linkage 1680 3,700 1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	Buckets (without linkage, with tips and side cutters):		
1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage 1930 4,250 0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	1.64 m³ (2.15 yd³) Severe Duty (SD), DB Linkage	1770	3,900
0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage 390 860	1.88 m³ (2.46 yd³) HD, DB Linkage	1680	3,700
	1.91 m³ (2.50 yd³) Severe Duty Spade (SDS), DB Linkage	1930	4,250
0.74 m³ (0.97 yd³) DC, A Linkage 460 1,010	0.57 m³ (0.75 yd³) Ditch Cleaning (DC), A Linkage	390	860
	0.74 m³ (0.97 yd³) DC, A Linkage	460	1,010

Dimensions

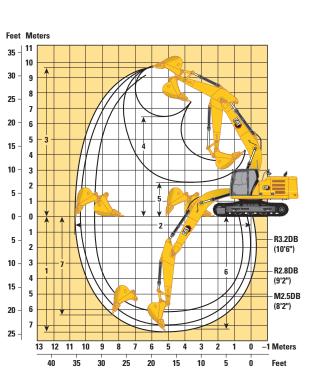
All dimensions are approximate and may vary depending on bucket selection.

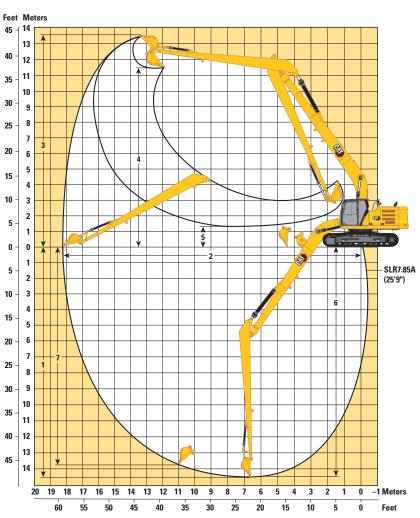


Boom Options			ch Boom 1 (20'2")		Mass 5.55 m		SLR Boom 10.2 m (33'6")	
Stick Options			ich Stick	D (401011)	Mass Stick		SLR Stick	
-	HD R2.8D	B (9'2")	HD R3.2D	B (10'6")	M2.5DE	3 (8'2")	SLR7.85 <i>A</i>	A (25'9")
1 Machine Height:								
Top of Cab Height	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"
Top of OPG Height	3200 mm	10'6"	3200 mm	10'6"	3200 mm	10'6"	3200 mm	10'6"
Handrail Height	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"
With Boom/Stick/Bucket Installed	3650 mm	12'0"	3580 mm	11'9"	3530 mm	11'7"	3230 mm	10'7"
With Boom/Stick Installed	3650 mm	12'0"	3580 mm	11'9"	3440 mm	11'3"	3230 mm	10'7"
With Boom Installed	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"	3060 mm	10'0"
2 Machine Length:								
With Boom/Stick/Bucket Installed	10 450 mm	34'3"	10 450 mm	34'3"	9870 mm	32'5"	14 480 mm	47'6"
With Boom/Stick Installed	10 450 mm	34'3"	10 450 mm	34'3"	9850 mm	32'4"	14 480 mm	47'6"
With Boom Installed	9230 mm	30'3"	9230 mm	30'3"	8600 mm	28'3"	13 390 mm	43'11"
3 Upperframe Width	2930 mm	9'7"	2930 mm	9'7"	2930 mm	9'7"	2930 mm	9'7"
4 Tail Swing Radius	3130 mm	10'3"	3130 mm	10'3"	3130 mm	10'3"	3130 mm	10'3"
5 Counterweight Clearance	1120 mm	3'8"	1120 mm	3'8"	1120 mm	3'8"	1120 mm	3'8"
6 Ground Clearance	480 mm	1'7"	480 mm	1'7"	490 mm	1'7"	490 mm	1'7"
7 Track Length – Length to Center of Rollers	3990 mm	13'1"	3990 mm	13'1"	3990 mm	13'1"	3990 mm	13'1"
8 Track Length – Overall Length	4860 mm	15'11"	4860 mm	15'11"	4860 mm	15'11"	4850 mm	15'11"
9 Track Gauge – Extended	2740 mm	9'0"	2740 mm	9'0"	2740 mm	9'0"	2740 mm	9'0"
10 Undercarriage Width:								
600 mm (24") Shoes	3340 mm	10'11"	3340 mm	10'11"	3340 mm	10'11"	3340 mm	10'11"
800 mm (31") Shoes	3540 mm	11'7"	3540 mm	11'7"	3540 mm	11'7"	3540 mm	11'7"
Bucket Type	HI)	HI)	HD		DO	
Bucket Capacity	1.88 m ³	2.46 yd ³	1.88 m ³	2.46 yd ³	2.36 m ³	3.09 yd ³	0.57 m^3	0.75 yd ³
Bucket Tip Radius	1784 mm	5'10"	1784 mm	5'10"	1787 mm	5'10"	1073 mm	3'6"

Working Ranges

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





Boom Options			ch Boom (20'2")			Boom (18'2")	SLR Boom 10.2 m (33'6")	
Stick Options	HD R2.8		ch Stick HD R3.2D	OB (10'6")		Stick B (8'2")	SLR S SLR7.85	
1 Maximum Digging Depth	6970 mm	22'10"	7370 mm	7370 mm 24'2"		20'1"	14 590 mm	47'10"
2 Maximum Reach at Ground Line	10 390 mm	34'1"	10 680 mm	35'0"	9470 mm	31'1"	18 270 mm	59'11"
3 Maximum Cutting Height	9770 mm	32'1"	9660 mm	31'8"	9150 mm	30'0"	13 620 mm	44'8"
4 Maximum Loading Height	6540 mm	21'5"	6510 mm	21'4"	5970 mm	19'7"	11 590 mm	38'0"
5 Minimum Loading Height	2580 mm	8'6"	2170 mm	7'1"	2440 mm	8'0"	1330 mm	4'4"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6800 mm	22'4"	7200 mm	23'7"	5940 mm	19'6"	14 490 mm	47'6"
7 Maximum Vertical Wall Digging Depth	5270 mm	17'3"	6240 mm	20'6"	4380 mm	14'4"	13 870 mm	45'6"
Bucket Digging Force (ISO)	197 kN	44,290 lbf	197 kN	44,290 lbf	211 kN	47,430 lbf	62 kN	13,940 lbf
Stick Digging Force (ISO)	164 kN	36,870 lbf	147 kN	33,050 lbf	153 kN	34,400 lbf	45 kN	10,120 lbf
Bucket Type	HD		HD		DC		DC	
Bucket Capacity	1.88 m ³	2.46 yd ³	1.88 m ³	2.46 yd ³	2.36 m ³	3.09 yd ³	0.57 m ³	0.75 yd ³
Bucket Tip Radius	1784 mm	5'10"	1784 mm	5'10"	1787 mm	5'10"	1073 mm	3'6"

Bucket Specifications and Compatibility

									7700 kg	(16,980 lb) Counte	rweight
		Width		Cap	Capacity		Weight		HD Rea	SLR Boom	
	Linkage	mm	in	m³	yd³	kg	lb	%	HD R2.8 m (9'2")	HD R3.2 m (10'6")	7.85A (25'9") SLF
Pin-On (No Quick Couple	er)									•	
Heavy Duty	DB	1500	59	1.88	2.46	1557	3,432	100	•	•	
	DB	1550	59	1.88	2.46	1621	3,574	100	•	•	
	DB	1550	61	1.88	2.46	1573	3,468	100	•	•	
	DB	1600	63	2.00	2.62	1632	3,598	100	•	•	
Severe Duty	DB	1400	55	1.64	2.14	1691	3,729	90	•	•	
	DB	1500	59	1.90	2.49	1850	4,079	90	•	•	
	DB	1550	61	1.90	2.49	1877	4,138	90	•	•	
Ditch Cleaning	312, A	1200	47	0.57	0.74	387	855	100			•
	Ma	ximum	lood w	th nin c	n /novi	and th	uokot)	kg	5342	5055	1435
	IVId	XIIIIUIII	ioau w	un pin-c	лі (рауі	oau + b	искеі)	lb	11,777	11,144	3,164
With Pin Grabber Quick (Coupler										
Heavy Duty	DB	1500	59	1.88	2.46	1557	3,432	100	•	Θ	
	DB	1550	59	1.88	2.46	1621	3,574	100	θ	Θ	
	DB	1550	61	1.88	2.46	1573	3,468	100	•	Θ	
	DB	1600	63	2.00	2.62	1632	3,598	100	•	•	
Severe Duty	DB	1400	55	1.64	2.14	1691	3,729	90	•	•	
	DB	1500	59	1.90	2.49	1850	4,079	90	•	Θ	
	DB	1550	61	1.90	2.49	1877	4,138	90	•	Θ	
Ditch Cleaning	312, A	1200	47	0.57	0.74	387	855	100			\Diamond
	May	imum lo	od wit	a count	or Inovi	and th	uokot)	kg	4816	4529	909
	IVIax	iiiluiii IC	Jau WIL	coupi	ei (hayi	udu + D	ucket)	lb	10,617	9,984	2,003

The above loads are in compliance with hydraulic excavator standard EN474-5:2006+A3:2013, 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 7451:2007.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- \bigcirc 900 kg/m³ (1,500 lb/yd³)

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.

Attachments Offering Guide	
Not all Attachments are available in all regions. Consult you	ır Cat dealer for configurations available in your region.
✓ Match	No Match

IN-ON ATTACHMENTS				
Boom Type		HD Reach		Mass Reach
Stick Length		HD R2.8 m (9'2")	HD R3.2 m (10'6")	M2.5 m (8'2")
Hydraulic Hammers	H130 GC	✓	✓	✓
	H130 GC S	✓	✓	✓
	H140 GC	✓	✓	✓
	H140 GC Side Mount	✓	✓	✓
	H140 GC S	✓	✓	✓
	H160 GC	✓	✓	✓
	H160 GC S	✓	✓	✓
	H180 GC S			✓
Rotary Cutters	RC30	✓	✓	✓

333 Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
BOOMS, STICKS AND LINKAGES		
6.15 m (20'2") HD Reach boom		✓
5.55 m (18'2") Mass boom (with rebar)		✓
10.2 m (33'6") Super Long Reach boom		✓
2.8 m (9'2") HD Reach stick		✓
3.2 m (10'6") HD Reach stick		✓
2.5 m (8'2") Mass stick		✓
7.85 m (25'9") Super Long Reach stick		✓
Bucket linkage, DB-type with lifting eye		✓
Bucket linkage, DB-type without lifting eye		✓
Bucket linkage, A-type with lifting eye		✓
Bucket linkage, A-type without lifting eye		✓
CAB		
ROPS	✓	
OPG		✓
High-resolution 203 mm (8") LCD touchscreen monitor	✓	
Auto bi-level air conditioner	✓	
Keyless push-to-start engine control	✓	
Height-adjustable console, three steps with tool	✓	
Fixed left-side console	✓	
Mechanical-suspension seat	✓	
51 mm (2") seat belt	✓	
Bluetooth integrated radio with USB/ Aux ports	✓	
24V DC outlet	✓	
Document storage	✓	
Cup holder	✓	
Beverage holder	✓	
Openable two-piece front window	✓	
Rear window emergency exit	✓	
Upper radial wiper with washer	✓	
Openable steel hatch	✓	
LED dome light	✓	
Roller front sunscreen	✓	
Roller rear sunscreen		✓
Washable floor mat	✓	
Beacon ready	✓	
Cat Stick Steer		√

¹Provides core telematics data to manage health, maintenance insights, and condition monitoring. Other plans available for more comprehensive data reporting. Consult your Cat dealer for details.

	Standard	Optional
CAT TECHNOLOGY		
Cat Equipment Management:		
VisionLink®	√ 1	
VisionLink Productivity		✓2
Remote Flash	✓	
ELECTRICAL SYSTEM		
Maintenance-free 1,000 CCA batteries	✓	
Centralized electrical disconnect switch	✓	
Programmable time-delay working lights	✓	
LED chassis, boom and cab lights	✓	
ENGINE		
Cat® C7.1 single turbo diesel engine	✓	
Two selectable modes: Power, Smart	✓	
4500 m (14,760 ft) altitude capability with engine power derate above 3000 m	✓	
(9,840 ft) Electric cooling fans with auto-reverse function	✓	
Auto engine speed control	✓	
Auto engine idle shutdown	✓	
Electric fuel priming pump	✓	
50° C (122° F) high-ambient cooling capacity	✓	
-18° C (0° F) cold start capability	✓	
Double element air filter with integrated pre-cleaner	✓	
2 × 115 Amp dual alternator	✓	
Two-stage fuel filtration system with water separator and indicator	✓	

(continued on next page)

²VisionLink subscription required. Consult your Cat dealer for details.

333 Standard and Optional Equipment

Standard and Optional Equipment (continued)

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

	Standard	Optional
IYDRAULIC SYSTEM		
Electronic main control valve	✓	
Boom and stick regeneration circuits	✓	
Tandem type electronic main pump	✓	
Auto warm up	✓	
Auto two-speed travel	✓	
Boom and stick drift reduction valve	✓	
Element type main hydraulic filter	✓	
SAFETY AND SECURITY		
Auto hammer stop	✓	
Rearview camera	✓	
Right-hand-side mirror		✓
Right-hand-sideview cameras	✓	
Ground-level engine shutoff switch	✓	
Lockable disconnect switch	✓	
Right-hand handrail and hand hold	✓	
Signaling/warning horn	✓	
Service platform with anti-skid plate and countersunk bolts	✓	
Hydraulic lock out lever neutralizes all controls	✓	
Travel alarm		✓
Swing alarm		✓

	Standard	Optional
SERVICE AND MAINTENANCE		
Side entry to service platform	✓	
Grouped location of engine oil and fuel filters	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓	
Ground-level 2nd dipstick for engine oil	✓	
Integrated vehicle health management system	✓	
UNDERCARRIAGE AND STRUCTURES		
Long undercarriage	✓	
600 mm (24") double grouser track shoes		✓
600 mm (24") triple grouser track shoes		✓
800 mm (31") triple grouser track shoes		✓
Three-piece segmented track guiding guards		✓
Full-length segmented track guiding guards		✓
Travel motor guards	✓	
Bottom guards	✓	
Swivel guard	✓	
Grease lubricated track links	✓	
7700 kg (16,980 lb) counterweight	✓	

Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- RH electrical pedal (two-way) for tool control
- LH electrical pedal (two-way) for tool control
- Radial lower wiper for two piece (70/30) windshield, with washer
- Polycarbonate roof hatch
- P5A laminated glass front windshield and roof hatch (for EU demolition regulation)

GUARDS

- Falling object guard system (not compatible with cab light cover, rain protector)
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front
- Full protecting vandalism guard (not compatible with cab light cover, rain protector)

SERVICE AND MAINTENANCE

• Grease gun holder

SAFETY AND SECURITY

- · Bluetooth receiver kit
- 75 mm (3") retractable seat belt

333 Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat® C7.1 engine emits equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels** up to:
 - ✓ 100% 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.

*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.

Air Conditioning System

• The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg (1.9 lb) of refrigerant which has a CO₂ equivalent of 1.216 metric tonnes (1.340 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
- Barium < 0.01%
- Cadmium < 0.01%
- − Chromium < 0.01%
- Lead < 0.01%

Sound Performance

ISO 6395:2008 (external) 103 dB(A)

ISO 6396:2008 (inside cab) 73 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.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO[™] Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - Smart mode matches machine power to digging requirements automatically
- Push-to-start engine with automatic engine speed control
- Extended service intervals help decrease maintenance costs
- Reduce fuel consumption with the high-efficiency hydraulic fan that cools the engine on demand
- The latest hydraulic oil filter provides longer life with a 3,000-hour replacement interval

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com**

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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