

Engine

Engine Model	Cat 3066 T Diesel Engine	
Flywheel Power	103 kW	138 hp
ISO 9249	103 kW	138 hp
SAE J1349	103 kW	138 hp
EEC 80/1269	103 kW	138 hp
Bore	102 mm	4.02 in
Stroke	130 mm	5.12 in
Displacement	6.37 L	389 in ³
Gross Power	107 kW	143 hp

- The 320C/320C L meets US Tier 2 and EU Stage II emissions requirements.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No engine derating required below 2300 m (7,500 ft) altitude.

Weights

Operating Weight - Long Undercarriage	21 000 kg	46,300 lb
Operating Weight - Std. Undercarriage	19 700 kg	43,400 lb

Service Refill Capacities

Fuel Tank Capacity	400 L	106 gal
Cooling System	30 L	7.9 gal
Engine Oil	30 L	7.9 gal
Swing Drive	8 L	2.1 gal
Final Drive (each)	10 L	2.6 gal
Hydraulic System (including tank)	200 L	53 gal
Hydraulic Tank	120 L	32 gal

Sound Performance

- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 74 dB(A), for the cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.

Standards

Brakes	SAE J1026 APR90	
Cab/FOGS	SAE J1356 FEB88 ISO 10262	

Hydraulic System

Main Implement System - Maximum Flow (2x)	205 L/min	54.2 gal/min
Max. pressure - Implements (Full Time)	34 300 kPa	4,980 psi
Max. pressure - Travel	34 300 kPa	4,980 psi
Max. pressure - Swing	25 000 kPa	3,625 psi
Pilot System - Maximum flow	41 L/min	10.8 gal/min
Pilot System - Maximum pressure	4120 kPa	600 psi
Boom Cylinder - Bore	120 mm	5 in
Boom Cylinder - Stroke	1260 mm	52 in
Stick Cylinder - Bore	140 mm	5.5 in
Stick Cylinder - Stroke	1430 mm	56 in
B Family Bucket Cylinder - Bore	120 mm	5 in
B Family Bucket Cylinder - Stroke	1030 mm	41 in
C Family Bucket Cylinder - Bore	130 mm	5 in
C Family Bucket Cylinder - Stroke	1150 mm	46 in

Drive

Maximum Drawbar Pull	196 kN	44,040 lb
Maximum Travel Speed	5.5 kph	3.4 mph

Swing Mechanism

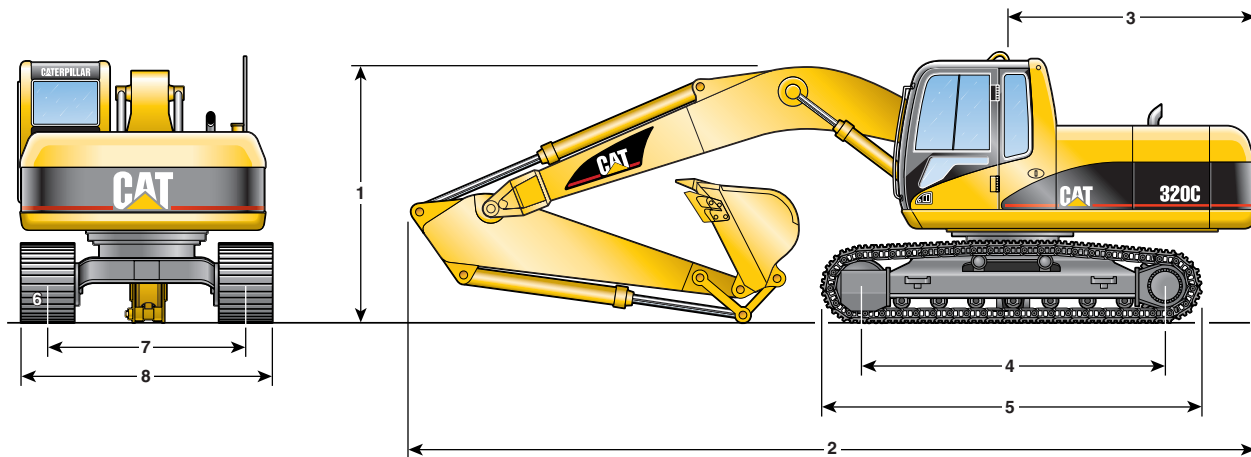
Swing Speed	11.5 RPM	
Swing Torque	61.8 kN·m	45,611 lb ft

Track

Standard w/Standard Undercarriage	600 mm	24 in
Standard w/Long Undercarriage - Triple Grouser	800 mm	32 in
Optional	600 mm	24 in
Optional	700 mm	28 in
Optional	800 mm	32 in

Dimensions and Weights

All dimensions are approximate.



	R3.9B (12'8") Stick	R2.9B (9'7") Stick Std/SA	R2.5B (8'2") Stick Std/SA
Reach Boom 5.68 m (18'7")			
1 Shipping height	3430 mm (11'3")	3010 mm (9'11")	3010 mm (9'11")
2 Shipping length	9420 mm (30'11")	9440 mm (31'0")	9460 mm (31'0")
3 Tail swing radius	2750 mm (9'0")	2750 mm (9'0")	2750 mm (9'0")
4 Length to center of rollers			
Standard	3265 mm (10'9")	3265 mm (10'9")	3265 mm (10'9")
Long	3650 mm (12'0")	3650 mm (12'0")	3650 mm (12'0")
5 Track length			
Standard	4075 mm (13'4")	4075 mm (13'4")	4075 mm (13'4")
Long	4455 mm (14'7")	4455 mm (14'7")	4455 mm (14'7")
6 Ground clearance	475 mm (1'7")	475 mm (1'7")	475 mm (1'7")
7 Track gauge			
Standard	2200 mm (7'3")	2200 mm (7'3")	2200 mm (7'3")
Long	2380 mm (7'10")	2380 mm (7'10")	2380 mm (7'10")
8 Transport width			
Standard	800 mm (32") shoes 3000 mm (9'10")	700 mm (28") shoes 2900 mm (9'6")	600 mm (24") shoes 2800 mm (9'2")
Long	3180 mm (10'5")	3080 mm (10'1")	2980 mm (9'9")

Mass Boom 5.2 m (17'1")	M2.4C (7'10") Stick
--------------------------------	----------------------------

1 Shipping height	3050 mm (10'0")
2 Shipping length	9000 mm (29'6")

Long Reach Front (320C L)	800 mm (32") only
----------------------------------	--------------------------

1 Shipping height	3210 mm (10'6")
2 Shipping length	12 660 mm (41'6")

Operating Weight	600 mm (24") Shoes (320C)		800 mm (32") Shoes (320C L)	
-------------------------	----------------------------------	--	------------------------------------	--

Reach Boom	kg	lb	kg	lb
Stick Options:				
3.9 m (12'8")	20 000	44,000	21 200	46,700
2.9 m (9'7")	19 700	43,400	21 000	46,300
2.5 m (8'2")	19 700	43,400	21 000	46,300

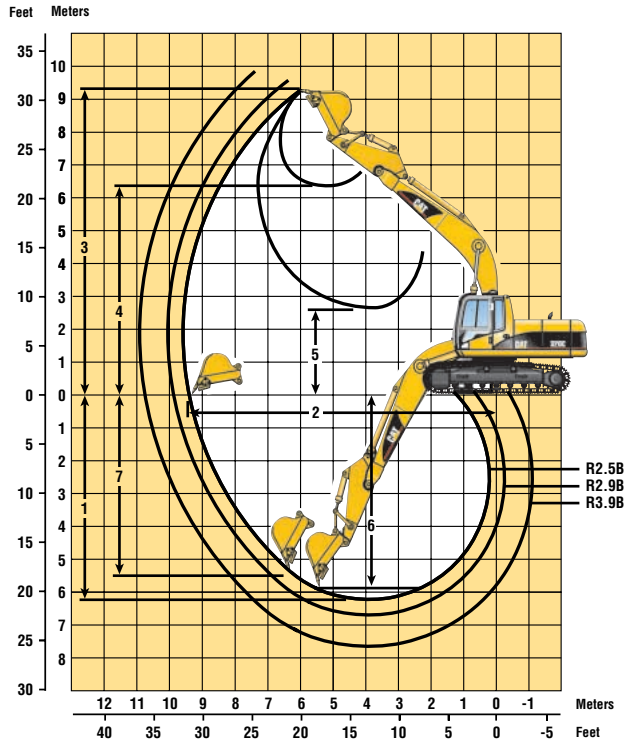
Mass Boom

Stick Option:				
2.4 m (7'10")	20 200	44,500	21 500	47,400

Long Reach	kg	lb
Total Weight	22 680	49,900

Reach Excavator Working Ranges

Reach (R) Boom configuration



Major Component Weights

Booms: including lines, boom cylinders, stick cylinders and left side light

	kg	lb
Reach	2030	4476
Reach (SA)	2194	4838

Sticks: including bucket cylinder and bucket linkage

	kg	lb
R3.9B	1250	2756
R2.9B	999	2203
R2.9B SA	1101	2427
R2.5B	974	2148
R2.5B SA	1038	2289

Counterweight	3850	8500
---------------	------	------

Stick Length	R3.9B (12'8")	R2.9B (9'7")	R2.5B (8'2")
Bucket	1 m³ (1.3 yd³)	1 m³ (1.3 yd³)	1 m³ (1.3 yd³)
1 Maximum Digging Depth	7.66 m (25'1")	6.72 m (22'0")	6.33 m (20'9")
2 Maximum Reach at Ground Level	10.71 m (35'2")	9.86 m (32'4")	9.46 m (31'0")
3 Maximum Cutting Height	9.82 m (32'2")	9.49 m (31'1")	9.30 m (30'6")
4 Maximum Loading Height	6.85 m (22'5")	6.50 m (21'4")	6.30 m (20'8")
5 Minimum Loading Height	1.23 m (4'0")	2.17 m (7'11")	2.59 m (8'5")
6 Maximum Depth Cut for 2440 mm (8') Level Bottom	7.31 m (24'0")	6.37 m (20'10")	5.95 m (19'6")
7 Maximum Vertical Wall Digging Depth	6.86 m (22'6")	6.05 m (19'10")	5.65 m (18'6")

Bucket and Stick Forces

Power Buckets

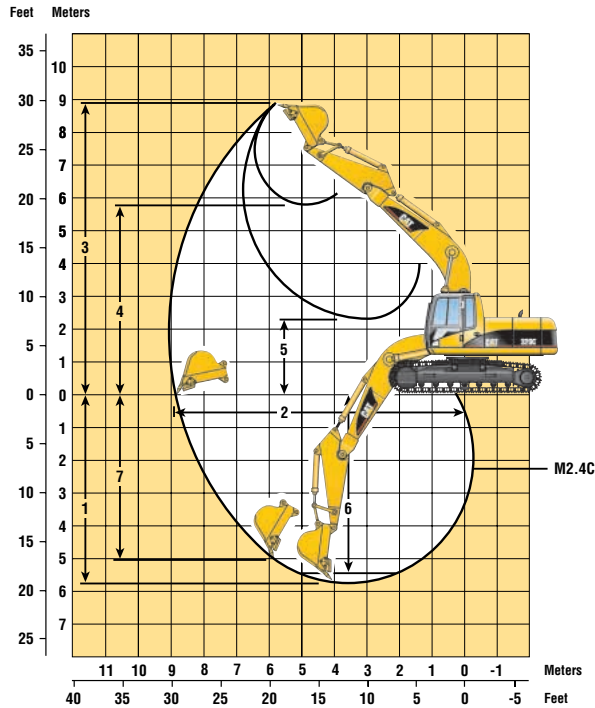
Stick	R3.9B (12'8")		R2.9B (9'7")		R2.5B (8'2")	
Bucket Digging Force (ISO)	159 kN	35,800 lb	159 kN	35,800 lb	159 kN	35,800 lb
Stick Digging Force (ISO)	86 kN	19,300 lb	103 kN	23,100 lb	117 kN	26,300 lb
Bucket Digging Force (SAE)	142 kN	31,800 lb	142 kN	31,800 lb	142 kN	31,800 lb
Stick Digging Force (SAE)	84 kN	18,900 lb	100 kN	22,400 lb	113 kN	25,400 lb

HD and HDR Buckets

Stick	R3.9B (12'8")		R2.9B (9'7")		R2.5B (8'2")	
Bucket Digging Force (ISO)	145 kN	32,500 lb	145 kN	32,500 lb	145 kN	32,500 lb
Stick Digging Force (ISO)	84 kN	18,900 lb	100 kN	22,500 lb	113 kN	25,500 lb
Bucket Digging Force (SAE)	128 kN	28,900 lb	128 kN	28,900 lb	128 kN	28,900 lb
Stick Digging Force (SAE)	82 kN	18,500 lb	97 kN	21,800 lb	110 kN	24,600 lb

Mass Excavator Working Ranges

Mass (M) Boom configuration



Stick Length	M2.4C (7'10")
Bucket	1.3 m³ (1.7 yd³)
1 Maximum Digging Depth	5.84 m (19'2")
2 Maximum Reach at Ground Level	8.91 m (29'2")
3 Maximum Cutting Height	8.90 m (29'2")
4 Maximum Loading Height	5.77 m (18'11")
5 Minimum Loading Height	2.28 m (7'5")
6 Maximum Depth Cut for 2440 mm (8') Level Bottom	5.50 m (18'0")
7 Maximum Vertical Wall Digging Depth	5.05 m (16'6")

Bucket and Stick Forces

HD and HDR Buckets		
Stick	M2.4C (7'10")	
Bucket Digging Force (ISO)	163 kN	36,700 lb
Stick Digging Force (ISO)	126 kN	28,200 lb
Bucket Digging Force (SAE)	144 kN	32,500 lb
Stick Digging Force (SAE)	121 kN	27,200 lb

Power Buckets		
Stick	M2.4C (7'10")	
Bucket Digging Force (ISO)	182 kN	41,000 lb
Stick Digging Force (ISO)	129 kN	28,900 lb
Bucket Digging Force (SAE)	161 kN	36,100 lb
Stick Digging Force (SAE)	124 kN	27,800 lb

Major Component Weights

Booms: including lines, boom cylinders, stick cylinders and left side light

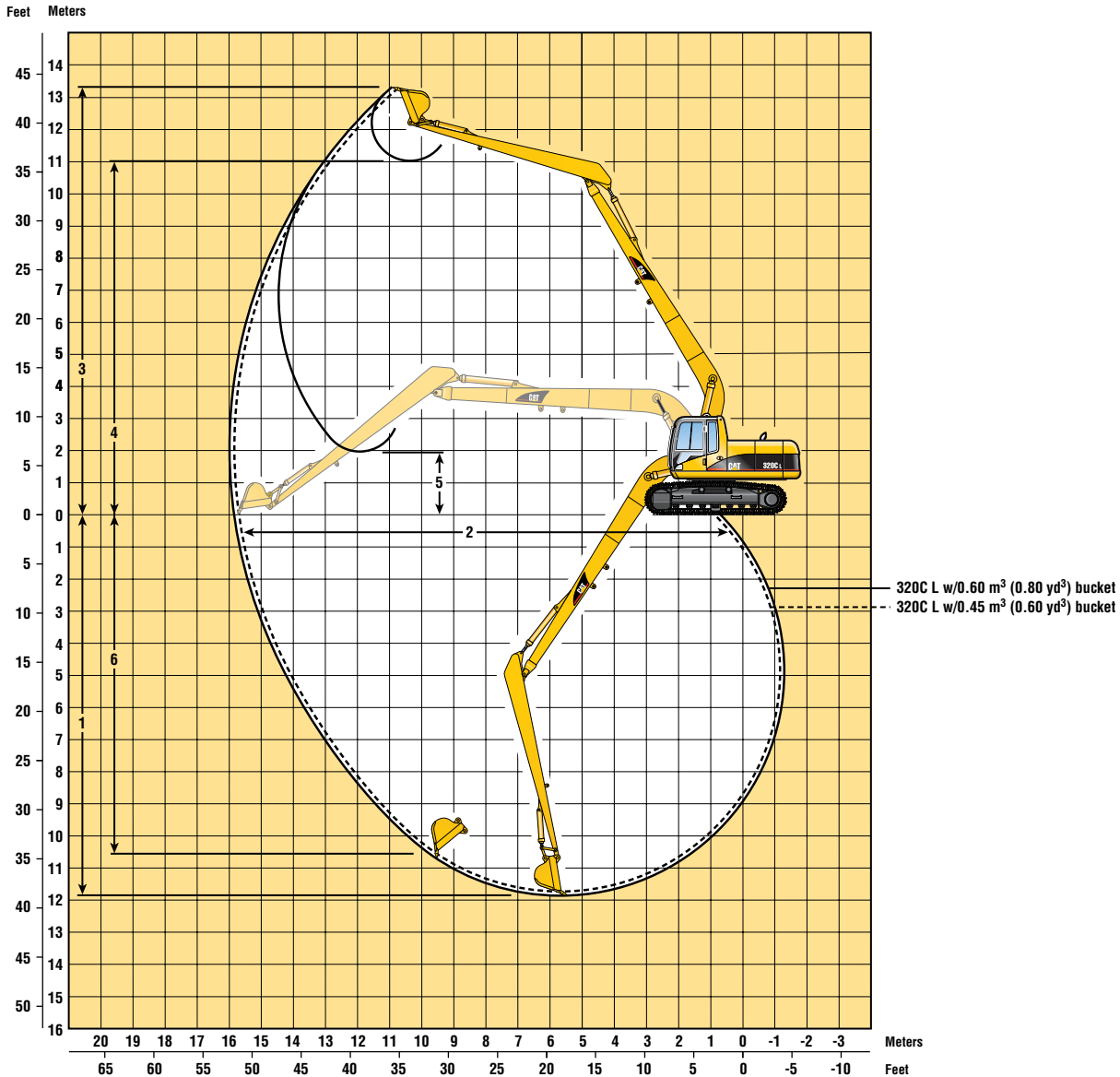
	kg	lb
Mass	2048	4516

Sticks: including bucket cylinder and bucket linkage

	kg	lb
M2.4C	1200	2646

Counterweight	3850	8500
---------------	------	------

Long Reach Excavator Working Ranges



Arrangements	320C L SLR 0.45 m ³ (0.60 yd ³) Excavation	320C L SLR 0.60 m ³ (0.80 yd ³) Ditch
1 Maximum Digging Depth	11.88 m (39'0")	11.75 m (38'7")
2 Maximum Reach at Ground Level	15.72 m (51'7")	15.59 m (51'2")
3 Maximum Cutting Height	13.29 m (43'7")	13.23 m (43'5")
4 Maximum Loading Height	11.01 m (36'1")	11.14 m (36'6")
5 Minimum Loading Height	1.97 m (6'6")	2.09 m (6'10")
6 Maximum Vertical Wall Digging Depth	10.7 m (35'1")	11.31 m (37'1")
Bucket Digging Force (ISO)	60 kN (13,500 lb)	60 kN (13,500 lb)
Stick Digging Force (ISO)	46 kN (10,300 lb)	46 kN (10,300 lb)
Bucket Digging Force (SAE)	54 kN (12,100 lb)	60 kN (13,500 lb)
Stick Digging Force (SAE)	46 kN (10,300 lb)	46 kN (10,300 lb)

Major Component Weights

Booms: including lines, boom cylinders, stick cylinders and left side light

	kg	lb
Boom	2180	4800

Sticks: including bucket cylinder and bucket linkage

Stick	1600	3520
-------	------	------

Counterweight	4830	10,630
---------------	------	--------