



316 GC

Hydraulic Excavator

Technical Specifications

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

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316 GC Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C4.4	
Net Power		
ISO 9249	68.2 kW	91 hp
ISO 9249 (DIN)	92 hp (metric)	
Engine Power		
ISO 14396	74.5 kW	100 hp
ISO 14396 (DIN)	101 hp (metric)	
Bore	105 mm	4 in
Stroke	127 mm	4 in
Displacement	4.4 L	268.5 in ³
Biodiesel Capability	Up to B20 ⁽¹⁾	

- Emits equivalent to U.S. EPA Tier 3, EU Stage IIIA.
- 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 cleaner, muffler, and alternator.
- No engine power derating required below 2300 m (7,546 ft) altitude.

⁽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 (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

*For use of blends higher than 20% biodiesel, consult your Cat dealer.

**Lower-carbon intensity fuels do not significantly reduce GHGs at the tailpipe.

Swing Mechanism

Swing Speed	11.5 rpm	
Maximum Swing Torque	34.1 kN·m	25,151 lbf·ft

Weights

Operating Weight	14 400 kg	31,750 lb
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- HD Boom 4.65 m (15'3"), HD 2.5 m (8'2") Stick, 500 mm (20"), Triple Grousers track shoes, HD 0.76 m³ (1.05 yd³) bucket

Track

Track Shoes Width	500 mm	20 in
Number of Shoes (each side)	46	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.4 km/h	3.4 mph
Maximum Drawbar Pull	116 kN	26,078 lbf

Hydraulic System

Main System – Maximum Flow – Implement	247 L/min	65 gal/min
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	25 900 kPa	3,756 psi
Boom Cylinder – Bore	105 mm	4 in
Boom Cylinder – Stroke	1015 mm	40 in
Stick Cylinder – Bore	115 mm	5 in
Stick Cylinder – Stroke	1197 mm	47 in
Bucket Cylinder – Bore	95 mm	4 in
Bucket Cylinder – Stroke	939 mm	37 in

Service Refill Capacities

Fuel Tank Capacity	237 L	63 gal
Cooling System	18 L	4.8 gal
Engine Oil (with filter)	16 L	4.2 gal
Final Drive (each)	3 L	0.8 gal
Hydraulic System (including tank)	145 L	38.3 gal
Hydraulic Tank	77 L	20.3 gal

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Standards

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

Sound Performance

ISO 6395:2008 (external)	102 dB(A)
ISO 6396:2008 (inside cab)	72 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

Base Machine Configurations	500 mm (20") Triple Grouser Shoes	
	Weight	Ground Pressure
	kg (lb)	kPa (psi)
Base Frame with Track Rollers and Carrier Rollers		
3.2 mt (7,050 lb) Counterweight + Long Undercarriage Base Machine		
HD Reach Boom + HD R2.5 (8'2") Stick + 0.76 m ³ (0.99 yd ³) HD Bucket	14 400 (31,750)	42.9 (6.2)

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

316 GC Hydraulic Excavator Specifications

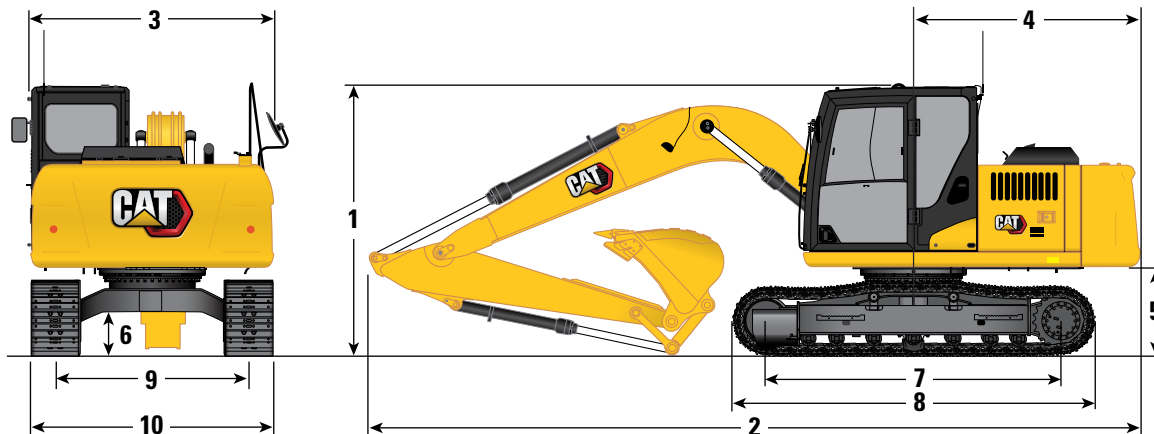
Major Component Weights

	kg	lb
Base machine (with boom cylinder, without counterweight, front linkage and track)	9750	21,500
Track Shoes:		
500 mm (20") Triple Grouser Track Shoes	1540	3,390
Counterweight:		
3.2 mt (7,050 lb) Counterweight	3200	7,050
Undercarriage:		
Base Frame with Standard Track Rollers and Carrier Rollers	2690	5,930
Boom (including lines, pins, stick cylinder):		
4.65 m (15'3") HD Reach Boom	1240	2,730
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
2.5 m (8'2") HD Stick	650	1,440
Buckets (without linkage, with tips and side cutters):		
0.76 m ³ (0.99 yd ³) Heavy Duty Bucket	550	1,210
0.8 m ³ (1.05 yd ³) General Duty Bucket	550	1,200

316 GC Hydraulic Excavator Specifications

Dimensions

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



Boom Option

HD Boom
4.65 m (15'3")

Stick Options

HD Stick
R2.5 m (8'2")

1 Machine Height:

Cab Height	2790 mm	9'2"
Handrail Height	2830 mm	9'3"
Shipping Height (including shoe lug height)	2840 mm	9'7"

2 Machine Length:

With Boom/Stick/Bucket Installed (with stick cylinder lines)	7870 mm	25'10"
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3 Upperframe Width without walkways

	2490 mm	8'2"
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4 Tail Swing Radius

	2350 mm	7'9"
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5 Counterweight Clearance

	930 mm	3'1"
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6 Ground Clearance

	430 mm	1'5"
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7 Track Length – Length to Center of Rollers

	3040 mm	10'0"
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8 Overall Track Length

	3750 mm	12'4"
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9 Track Gauge

	1990 mm	6'6"
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10 Track Width/Undercarriage Width:

500 mm (20") Shoes	2490 mm	8'2"
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Bucket Type

GD

Bucket Capacity

0.76 m³ 0.99 yd³

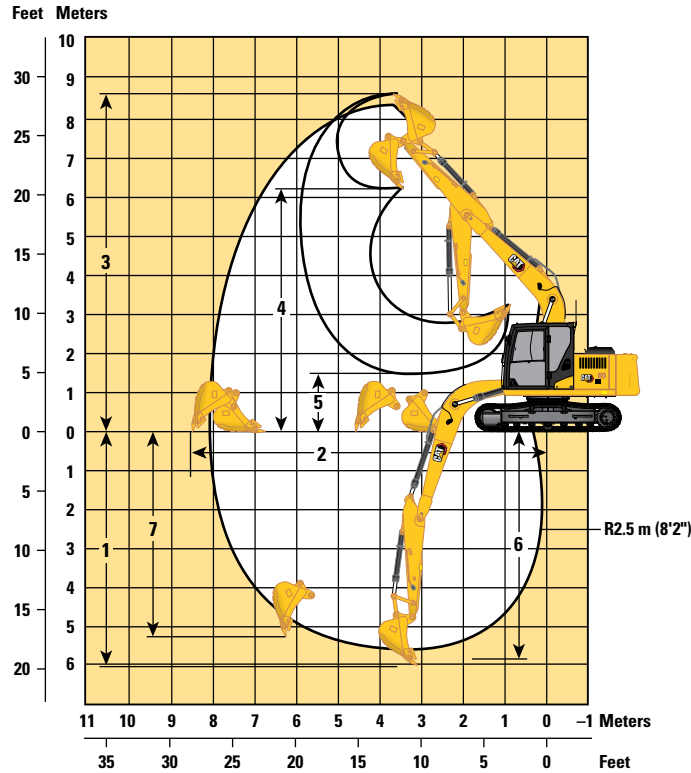
Bucket Tip Radius

1229 mm 4'0"

316 GC Hydraulic Excavator Specifications

Working Ranges

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



Boom Option

HD Boom
4.65 m (15'3")

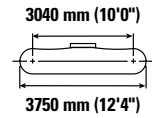
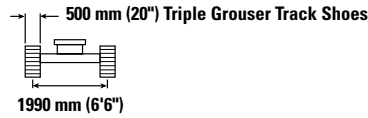
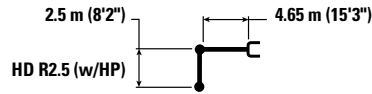
Stick Options












HD Stick
R2.5 m (8'2")

1 Maximum Digging Depth	5580 mm	18'4"
2 Maximum Reach at Ground Line	8220 mm	27'0"
3 Maximum Cutting Height	8520 mm	27'11"
4 Maximum Loading Height	6060 mm	19'11"
5 Minimum Loading Height	1970 mm	6'6"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5380 mm	17'8"
7 Maximum Vertical Wall Digging Depth	5050 mm	16'7"
Bucket Digging Force (ISO)	98.4 kN	22,120 lbf
Stick Digging Force (ISO)	68.8 kN	15,470 lbf
Bucket Type	GD	
Bucket Capacity	0.76 m ³	0.99 yd ³
Bucket Tip Radius	1229 mm	4'0"

316 GC Hydraulic Excavator Specifications

Reach Boom Lift Capacities – Counterweight: 3.2 mt (7,050 lb) – without Bucket



		1500 mm/5'0"		3000 mm/10'0"		4500 mm/15'0"		6000 mm/20'0"				mm ft/in
												
6000 mm 20'0"	kg lb					*3450 *7,650	*3450 *7,650			*2350 *5,150	*2350 *5,150	5380 17'4"
4500 mm 15'0"	kg lb					*3650 *7,950	*3650 *7,950	*3450 *6,850	2700 5,800	*2150 *4,750	*2150 *4,750	6370 20'9"
3000 mm 10'0"	kg lb			*6050 *12,900	*6050 *12,900	*4450 *9,650	4100 8,800	*3850 *8,400	2650 5,650	*2150 *4,650	2100 4,650	6900 22'7"
1500 mm 5'0"	kg lb			*8700 *18,650	6850 14,750	*5450 *11,800	3800 8,200	3900 8,350	2550 5,450	*2250 *4,900	2000 4,350	7080 23'2"
0 mm 0'0"	kg lb			*7200 *16,700	6500 13,950	5850 12,500	3600 7,800	3800 8,150	2450 5,250	*2500 *5,450	2000 4,400	6930 22'8"
-1500 mm -5'0"	kg lb	*5100 *11,400	*5100 *11,400	*9500 *20,550	6450 13,850	5750 12,350	3550 7,600	3750 8,050	2400 5,150	*2950 *6,550	2200 4,850	6430 21'0"
-3000 mm -10'0"	kg lb	*9200 *20,700	*9200 *20,700	*8300 *17,850	6550 14,050	*5650 *12,100	3600 7,700			*4150 *9,250	2750 6,150	5480 17'9"

* 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 $\pm 5\%$ for all available track shoes.

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

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Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	HD Reach Boom
		mm	in	m ³	yd ³	kg	lb	%	HD R2.5 (8'2")
Pin-On (No Quick Coupler)									
Heavy Duty	312	1200	47	0.76	0.99	550	1,213	90	●
General Duty	312	1250	49	0.80	1.05	545	1,202	100	◎
Maximum load with pin-on (payload + bucket)								kg	1986
								lb	4,380

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.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- ◎ 1800 kg/m³ (3,000 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.

316 GC Hydraulic Excavator Specifications

Attachments Offering Guide

Not all Attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

Match

PIN-ON ATTACHMENTS

Boom Type		HD Reach
Stick Length		HD R2.5 (8'2")
Hydraulic Hammers	H110 GC	✓
	H110 GC S	✓
	H115 GC	✓
	H115 GC S	✓

316 GC Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
BOOMS AND STICKS			ENGINE		
4.65 m (15'3") HD Reach boom	✓		Two selectable modes: Standard, ECO	✓	
2.5 m (8'2") HD Reach stick		✓	One touch low idle with automatic speed control	✓	
CAB			HYDRAULIC SYSTEM		
Zip-type rear window seal for easy removal	✓		Electronic main control valve	✓	
Armrest type on seat without height adjustment	✓		Single type electronic main pump	✓	
Openable tempered front upper windshield with Assist device and removable tempered lower windshield	✓		Automatic two-speed travel	✓	
Mechanical suspension comfort seat w/ headrest, arm rest angle adjustment	✓		Element type main hydraulic filter	✓	
2" (51 mm) orange seat belt	✓		Hammer lines		✓
Fixed left side console	✓		Hammer floor pedal kit		✓
Washable floor mat	✓		Hydraulic tank	✓	
1 x 24 V DC outlet	✓		SAFETY		
Dome interior lights, coat hook, cup holder, console storage, rear storage	✓		Rearview mirrors (handrail, cab handhold mounted)	✓	
8 in D6C8 touchscreen monitor	✓		Bolt free service platform with anti-skid plate	✓	
HVAC monitor control and radio	✓		Neutral lever (lock out) for all controls	✓	
Washer line for radial wiper	✓		Ground level accessible secondary engine shutoff switch	✓	
CAT TECHNOLOGY			Rearview camera		✓
Cat ProductLink™	✓		Signaling/warning horn	✓	
ELECTRICAL SYSTEM					
Maintenance-free battery	✓				
Centralized electrical disconnect switch	✓				
Camera optional attachment	✓				
Light, storage box and front	✓				
50 Ampere alternator	✓				

(continued on next page)

316 GC Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
SERVICE AND MAINTENANCE			UNDERCARRIAGE AND STRUCTURES		
Grouped location of filters	✓		Track type undercarriage with grease lubricated seals	✓	
Radiator screen	✓		500 mm (20") triple grouser shoes	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓		Idler section track guiding guards	✓	
			HD rollers	✓	
			HD upper frame	✓	
			Casting power link	✓	
			Additional fixed side cover	✓	
			Idlers	✓	
			Towing eye on base frame	✓	
			3.2 mt (7,050 lb) counterweight	✓	

316 GC Attachments

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

GUARDS

- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front
- Operator Protective Guards (OPG)

SERVICE PARTS

- Hammer floor pedal kit

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

- Meets equivalent to Brazil MAR-1, China Nonroad Stage III, U.S. EPA Tier 3 and EU Stage IIIA emission standards.
- 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 (hydrotreated 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.*

***Lower-carbon intensity fuels do not significantly reduce GHGs at the tailpipe.*

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) 102 dB(A)

ISO 6396:2008 (inside cab) 72 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.
 - Advanced hydraulic systems balance power and efficiency
 - Automatic Engine Control (AEC) system reduces RPM when hydraulic demand is low
 - Eco mode minimizes fuel consumption for light applications
 - One-touch low idle with automatic engine speed control
 - Cut maintenance costs with extended and synchronized intervals

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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AEXQ3788-00 (12-2023)
Build Number: 05D
(India)

