



# 317

## 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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### 317 Hydraulic Excavator – Forestry Configuration

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# 317 Hydraulic Excavator Specifications

## Engine

Engine Model	Cat® C3.6	
Net Power		
ISO 9249	98.9 kW	133 hp
ISO 9249 (DIN)	134 hp (metric)	
Engine Power		
ISO 14396	100 kW	134 hp
ISO 14396 (DIN)	136 hp (metric)	
Bore	98 mm	4 in
Stroke	120 mm	5 in
Displacement	3.6 L	220 in <sup>3</sup>
Biodiesel Capability	Up to B20 <sup>(1)</sup>	

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- No engine power derate required below 3000 m (9,840 ft) altitude.
- 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 (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.

*\*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	8.7 rpm	
Maximum Swing Torque	64.6 kN·m	47,647 lbf·ft

## Weights

Operating Weight	17 100 kg	37,800 lb
------------------	-----------	-----------

- Long undercarriage, Reach boom, R2.6 (8'6") stick, General Duty (GD) 0.65 m<sup>3</sup> (0.85 yd<sup>3</sup>) bucket, 500 mm (20") triple grouser shoes and 3.25 mt (7,165 lb) counterweight.

## Track

Standard Track Shoes Width	500 mm	20 in
Optional Track Shoes Width	600 mm	24 in
Optional Track Shoes Width	700 mm	28 in
Number of Shoes (each side)	44	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

## Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.3 km/h	3.3 mph
Maximum Drawbar Pull	157 kN	35,295 lbf

## Hydraulic System

Main System – Maximum Flow – Implement	296 L/min	78 gal/min
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	25 800 kPa	3,741 psi
Boom Cylinder – Bore	110 mm	4.3 in
Boom Cylinder – Stroke	1193 mm	47.0 in
Stick Cylinder – Bore	120 mm	5.5 in
Stick Cylinder – Stroke	1331 mm	52.4 in
Bucket Cylinder – Bore	105 mm	4.1 in
Bucket Cylinder – Stroke	1039 mm	40.9 in

## Service Refill Capacities

Fuel Tank Capacity	271 L	71.6 gal
Cooling System	22 L	5.8 gal
Engine Oil	11 L	2.9 gal
Final Drive (each)	6 L	1.6 gal
Hydraulic System (including tank)	94 L	24.8 gal
Hydraulic Tank	87 L	23.0 gal
Diesel Exhaust Fluid (DEF) Tank	22 L	5.9 gal

## Standards

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

## Sound Performance

ISO 6395:2008 (external)	101 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.

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## Operating Weights and Ground Pressures

Base Machine Configurations	500 mm (20") Triple Grouser Shoes		600 mm (24") Triple Grouser Shoes		600 mm (24") Rubber Track Shoes		700 mm (28") Triple Grouser Shoes	
	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure
<b>Base machine with 3.25 mt (7,165 lb) Counterweight and Long Undercarriage</b>	<b>kg (lb)</b>	<b>kPa (psi)</b>	<b>kg (lb)</b>	<b>kPa (psi)</b>	<b>kg (lb)</b>	<b>kPa (psi)</b>	<b>kg (lb)</b>	<b>kPa (psi)</b>
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) General Duty Excavation (GDX) Bucket	17 100 (37,800)	48.7 (7.1)	17 400 (38,300)	41.1 (6.0)	17 700 (39,100)	42.0 (6.1)	17 600 (38,800)	35.7 (5.2)
<b>Base machine with 3.77 mt (8,311 lb) Counterweight and Long Undercarriage</b>								
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	17 600 (38,900)	50.1 (7.3)	17 900 (39,400)	42.3 (6.1)	18 200 (40,200)	43.2 (6.3)	18 100 (39,900)	36.7 (5.3)

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

# 317 Hydraulic Excavator Specifications

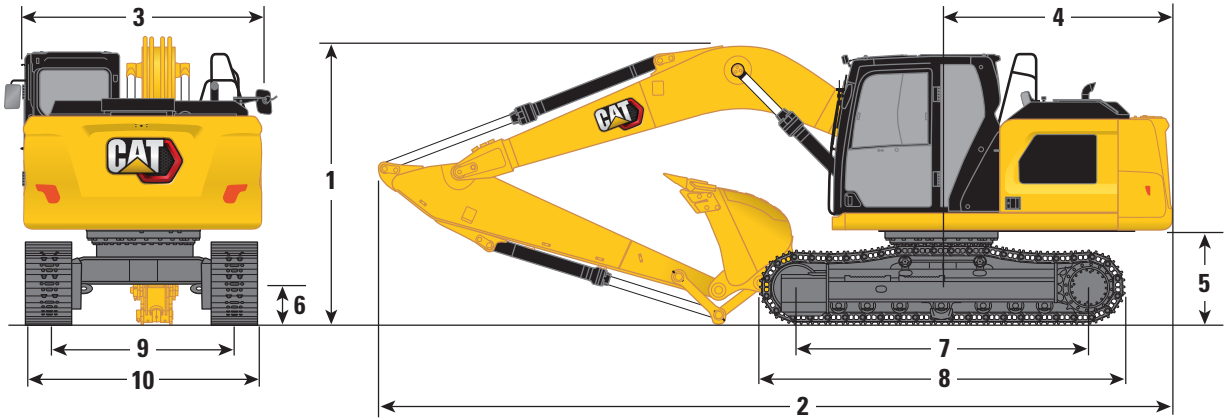
## Major Component Weights

	kg	lb
Base Machine (with counterweight, upper frame, long undercarriage – does not include boom, stick, bucket, boom cylinders, stick cylinder, bucket cylinders, tracks, 90% fuel tank and 75 kg [165 lb] operator).		
With 3.25 mt (7,165 lb) Counterweight	11 680	25,750
With 3.77 mt (8,311 lb) Counterweight	12 200	26,900
Track Shoes:		
500 mm (20") Triple Grouser Track Shoes	2110	4,660
600 mm (24") Triple Grouser Track Shoes	2340	5,160
600 mm (24") Rubber Track Shoes	2710	5,980
700 mm (28") Triple Grouser Track Shoes with Additional Steps	2580	5,680
Two Boom Cylinders	300	670
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	300	660
Counterweights:		
3.25 mt (7,165 lb) Counterweight	3250	7,165
3.77 mt (8,311 lb) Counterweight	3770	8,311
Swing Frame	1700	3,760
Undercarriage:		
Base Frame with Long Undercarriage	3900	8,600
Boom (including lines, pins, stick cylinder):		
Reach Boom 5.1 m (16'9")	1320	2,910
Stick (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick R2.6 (8'6")	810	1,780
Bucket (without linkage):		
0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	600	1,330
0.80 m <sup>3</sup> (1.05 yd <sup>3</sup> ) GDX Bucket	660	1,455
Quick Coupler:		
Pin Grabber Quick Coupler	260	580

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## Dimensions

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



<b>Boom Option</b>	<b>Reach Boom</b> 5.1 m (16'9")
<b>Stick Option</b>	<b>Reach Stick</b> R2.6 (8'6")

### 1 Machine Height:

Top of Cab Height	2930 mm	9'7"
Top of OPG Height	3070 mm	10'1"
Handrail Height	2940 mm	9'8"
With Boom/Stick/Bucket Installed (with stick cylinder lines)	3030 mm	9'9"
With Boom/Stick Installed (with stick cylinder lines)	2940 mm	9'5"
With Boom Installed (with stick cylinder lines)	2520 mm	8'3"

### Machine Height (with 600 mm [24"] rubber track shoes):

Top of Cab Height	2990 mm	9'9"
Top of OPG Height	3130 mm	10'3"
Handrails Height	3000 mm	9'10"
With Boom/Stick/Bucket Installed (with stick cylinder lines)	3050 mm	10'0"
With Boom/Stick Installed (with stick cylinder lines)	2960 mm	9'7"
With Boom Installed (with stick cylinder lines)	2550 mm	8'4"

### 2 Machine Length (without blade):

With Boom/Stick/Bucket Installed (with stick cylinder lines)	8560 mm	28'1"
With Boom/Stick Installed (with stick cylinder lines)	8530 mm	27'11"
With Boom Installed (with stick cylinder lines)	7630 mm	25'0"

### 2 Machine Length (with blade, blade rear):

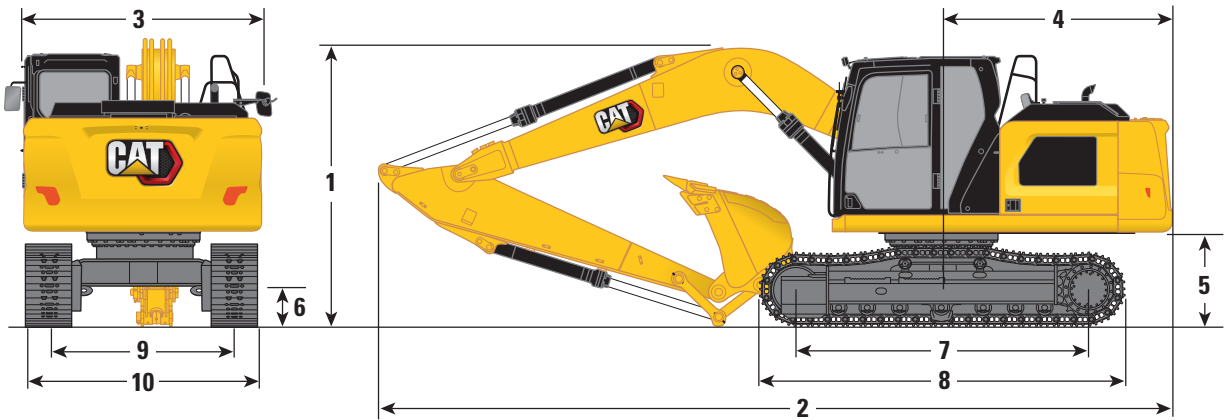
With Boom/Stick/Bucket Installed (with stick cylinder lines)	8600 mm	28'2"
With Boom/Stick Installed (with stick cylinder lines)	8570 mm	28'1"
With Boom Installed (with stick cylinder lines)	7670 mm	25'2"

Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

# 317 Hydraulic Excavator Specifications

## Dimensions

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

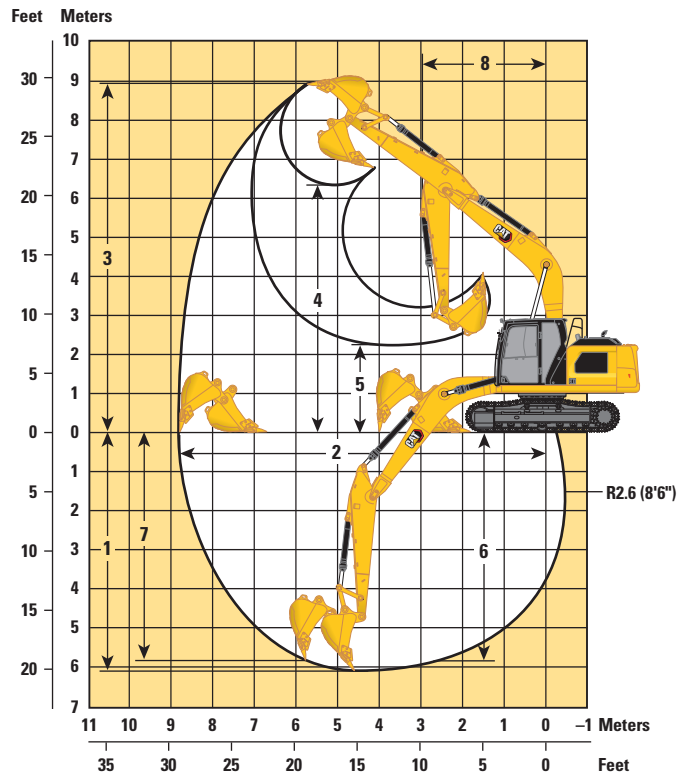


Boom Option	Reach Boom 5.1 m (16'9")	
Stick Option	Reach Stick R2.6 (8'6")	
<b>3</b> Upperframe Width	2540 mm	8'4"
<b>4</b> Tail Swing Radius:		
3.25 mt (7,165 lb) Counterweight	2500 mm	8'2"
3.77 mt (8,311 lb) Counterweight	2500 mm	8'2"
<b>5</b> Counterweight Clearance	1010 mm	3'4"
<b>6</b> Ground Clearance	430 mm	1'5"
<b>7</b> Length to Center of Rollers	3170 mm	10'5"
<b>8</b> Track Length	3970 mm	13'0"
<b>9</b> Track Gauge	1990 mm	6'6"
<b>10</b> Undercarriage Width:		
500 mm (20") Shoes	2490 mm	8'2"
600 mm (24") Shoes	2590 mm	8'6"
700 mm (28") Shoes (with steps)	2690 mm	8'10"
Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

# 317 Hydraulic Excavator Specifications

## Working Ranges and Forces

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

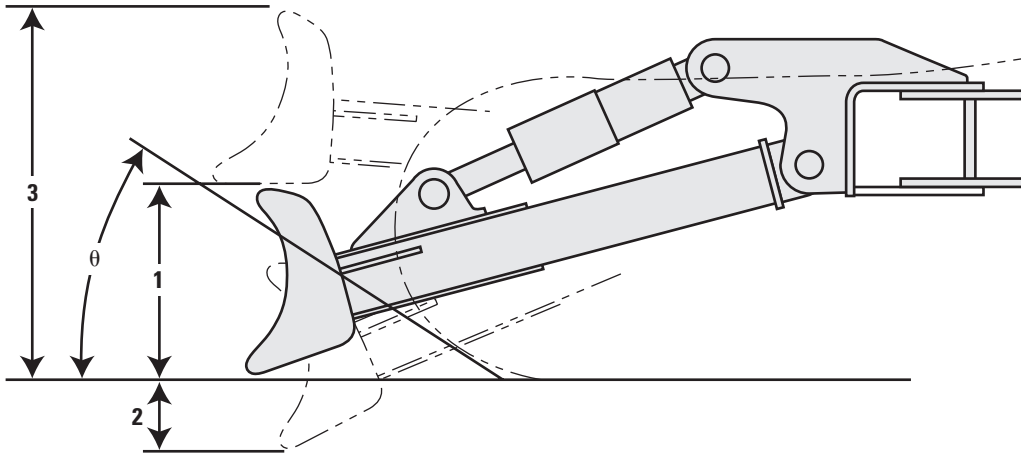


Boom Option	Reach Boom 5.1 m (16'9")	
Stick Option	Reach Stick R2.6 (8'6")	
1 Maximum Digging Depth	6070 mm	19'11"
2 Maximum Reach at Ground Line	8760 mm	28'9"
3 Maximum Cutting Height	8950 mm	29'4"
4 Maximum Loading Height	6310 mm	20'8"
5 Minimum Loading Height	2320 mm	7'7"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5880 mm	19'3"
7 Maximum Vertical Wall Digging Depth	5850 mm	19'2"
8 Minimum Working Equipment Radius	2980 mm	9'9"
Bucket Digging Force (ISO)	124 kN	27,880 lbf
Stick Digging Force (ISO)	80 kN	17,980 lbf
Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

# 317 Hydraulic Excavator Specifications

## Blade Working Ranges

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



Blade Working Ranges	Blade	
Blade Options	2500 mm (8'2")	
1 Blade Height	614 mm	2'0"
2 Maximum Lowering Depth from Ground	518 mm	1'8"
3 Maximum Raising Height above Ground	976 mm	3'2"
$\theta$ Approach Angle	23.5°	



# 317 Hydraulic Excavator Specifications

## Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill %	3.25 mt (7,165 lb) Counterweight	3.77 mt (8,311 lb) Counterweight
		mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb		Reach Boom	Reach Boom
									R2.6 (8'6")	R2.6 (8'6")
<b>Pin-On (No Quick Coupler)</b>										
General Duty – Excavation	316	950	37	0.65	0.85	553	1,218	100	●	●
	316	1100	43	0.80	1.04	612	1,349	100	●	●
Maximum load with pin-on (payload + bucket)								kg	2280	2510
								lb	5,035	5,523
<b>With Cat Pin Grabber Coupler</b>										
General Duty – Excavation	316	950	37	0.65	0.85	553	1,218	100	●	●
	316	1100	43	0.80	1.04	612	1,349	100	⊙	●
Maximum load with coupler (payload + bucket)								kg	2084	2305
								lb	4,595	5,082

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/m<sup>3</sup> (3,500 lb/yd<sup>3</sup>)
- ⊙ 1800 kg/m<sup>3</sup> (3,000 lb/yd<sup>3</sup>)

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.

# 317 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

Counterweight		3.25 mt (7,165 lb)	3.77 mt (8,311 lb)
Boom Type		Reach Boom	Reach Boom
Stick Length		R2.6 (8'6")	R2.6 (8'6")
Hydraulic Hammers	H110 S	✓	✓
	H115 S	✓	✓
	H120 S	✓	✓
Rotary Cutters	RC15	✓	✓

### CAT PIN GRABBER COUPLER ATTACHMENTS

Counterweight		3.25 mt (7,165 lb)	3.77 mt (8,311 lb)
Boom Type		Reach Boom	Reach Boom
Stick Length		R2.6 (8'6")	R2.6 (8'6")
Hydraulic Hammers	H110 S	✓	✓
	H115 S	✓	✓
	H120 S	✓	✓
Rotary Cutters	RC15	✓	✓

### TRS14 (PIN-ON TOP/HCS65 BOTTOM) ATTACHMENTS

Some attachments require more hydraulic flow and are best suited with a machine that has HP2 circuits and a tiltrotator with a high flow swivel. Check the hydraulic capability of your machine and tiltrotator and the requirements of your attachment to ensure a proper match.

Counterweight		3.25 mt (7,165 lb)	3.77 mt (8,311 lb)
Boom Type		Reach Boom	Reach Boom
Stick Length		R2.6 (8'6")	R2.6 (8'6")
Hydraulic Hammers	H110 S	✓	✓
	H115 S	✓	✓

**NOTE:** Use hammers on tiltrotators less than 10% of working hours per year or maximum 200 hours per year. Refer to your Operation and Maintenance Manual for recommended hydraulic flow requirements.

# 317 Hydraulic Excavator Specifications

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>BOOMS, STICKS AND LINKAGES</b>			<b>ELECTRICAL SYSTEM</b>		
5.1 m (16'9") Reach boom	✓		Maintenance free battery	✓	
2.6 m (8'6") Reach stick	✓		Centralized electrical disconnect switch	✓	
Bucket linkage, without lifting eye, Cat Grade	✓		Programmable time-delay LED working lights	✓	
<b>CAT TECHNOLOGY</b>			LED chassis and left-side boom light – 1,800 lumens	✓	
Cat Equipment Management:			LED right-side boom light and cab lights – 1,800 lumens		✓
– VisionLink®	✓ <sup>1</sup>		360° lighting		✓
– VisionLink Productivity		✓ <sup>2</sup>	<b>ENGINE</b>		
– Remote Flash	✓		Cat® C3.6 single turbo diesel engine	✓	
– Remote Troubleshoot	✓		Three selectable modes: Power, Smart, Eco	✓	
– Work tool recognition and tracking (PL161)	✓		One-touch low idle with automatic engine speed control	✓	
– Operator Coaching		✓ <sup>3</sup>	Auto engine idle shutdown	✓	
Cat Grade:			–18° C (0° F) cold start capability		✓
– Cat Grade with 2D	✓		–25° C (–13° F) cold start capability		✓
– Cat Grade with 2D with Attachment Ready Option (ARO)		✓	Two-stage fuel filtration system with water separator and indicator	✓	
– Laser catcher		✓	Sealed double element air filter with integrated pre-cleaner	✓	
– Cat Grade with 3D (single or dual Global Navigation Satellite System [GNSS])		✓	Electric fuel priming pump	✓	
– Compatible with 3D grade systems from Trimble, Topcon, and Leica	✓		Electric cooling fans	✓	
– Cat Grade 3D Ready		✓	<b>HYDRAULIC SYSTEM</b>		
– Cat Grade Connectivity		✓ <sup>2</sup>	Electronic main control valve	✓	
Cat Assist:			Single type electronic main pump	✓	
– Grade Assist	✓		Boom and stick regeneration circuits	✓	
– Boom Assist	✓		Boom and stick drift reduction valve	✓	
– Bucket Assist	✓		Automatic hydraulic oil warm up	✓	
– Swing Assist	✓		Automatic two-speed travel	✓	
– Lift Assist	✓		Element type main hydraulic filter	✓	
Cat Payload:			Hydraulic efficiency monitoring		✓
– On-the-go weighing	✓		<sup>1</sup> Provides 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.		
– Semiautomatic calibration	✓		<sup>2</sup> VisionLink subscription required. Consult your Cat dealer for details.		
– Payload/cycle information	✓		<sup>3</sup> VisionLink subscription required for back office reporting. Consult your Cat dealer for details.		
– VisionLink Productivity back office reporting		✓ <sup>2</sup>	<i>(continued on next page)</i>		
Cat Advanced Payload:					
– Daily totals		✓			
– Custom lists		✓			
– Smart weight target		✓			
– E-ticket Integration		✓ <sup>2</sup>			
Other:					
Cat Tiltrotator (TRS) integration		✓			

# 317 Hydraulic Excavator Specifications

## Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
<b>SAFETY AND SECURITY</b>			<b>UNDERCARRIAGE AND STRUCTURES</b>		
Rear and right-side-view cameras	✓		500 mm (20") triple grouser track shoes		✓
360° visibility		✓	600 mm (24") triple grouser track shoes		✓
Ground level accessible secondary engine shutoff switch in cab	✓		600 mm (24") rubber track shoes		✓
Service platform with anti-skid plate and countersunk bolts	✓		700 mm (28") triple grouser track shoes with additional steps		✓
Signaling/warning horn	✓		Grease lubricated track link	✓	
Swing alarm		✓	Center track guiding guard		✓
Hydraulic lock out lever	✓		Two-piece segmented track guiding guard		✓
Inspection lighting		✓	Bottom without swivel guard	✓	
2D E-Fence:	✓		Travel motor guards	✓	
– E-ceiling			3.25 mt (7,165 lb) counterweight	✓	
– E-floor			3.77 mt (8,311 lb) counterweight		✓
– E-swing			Tie-down points	✓	
– E-wall					
– E-cab avoidance					
Auto hammer stop	✓				
<b>SERVICE AND MAINTENANCE</b>					
Side entry to service platform	✓				
Grouped engine oil and fuel filters	✓				
Ground level engine oil dipstick	✓				
Lockable disconnect switch	✓				
Scheduled Oil Sampling (S·O·S <sup>SM</sup> ) ports	✓				
Integrated vehicle health management system	✓				

## Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

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### CAB

- Radial lower wiper
- Left-hand and right-hand electrical pedal (two-way) for tool control
- Dual exit rear window kit
- Rain protector plus cab light cover
- Front windshield laminated glass (P5A glass, EU demolition regulation)
- Key fob (for use with Bluetooth receiver)

### SAFETY AND SECURITY

- 76 mm (3") retractable seat belt

### GUARDS

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

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## Cab Options

	Comfort	Deluxe
ROPS	●	●
Operator Protective Guards (OPG)	○	○
High-resolution 203 mm (8") LCD touchscreen monitor*	●	X
High-resolution 254 mm (10") LCD touchscreen monitor**	○	●
Auto bi-level air conditioner	●	●
Jog dial and shortcut keys for monitor control	●	●
Keyless push-to-start engine control	●	●
Height-adjustable console	X	●
Height-adjustable console, three steps with tool	●	X
Tilt-up left-side console	X	●
Fixed left-side console	●	X
Mechanical-suspension seat	●	X
Heated air-suspension seat	X	●
51 mm (2") seat belt	●	●
Monitor integrated Bluetooth® radio with USB/Auxiliary ports	●	●
12V DC outlets	●	●
Document storage	●	●
Overhead storage and rear storage with nets	X	●
Beverage holder	●	●
Cup holder	●	●
Openable two-piece front window	●	●
Rear window emergency exit	●	●
Radial wiper with washer	●	●
Openable polycarbonate skylight hatch	X	●
Openable steel hatch	●	X
LED dome light	●	●
Roof sunscreen	X	●
Roller front sunscreen	●	●
Roller rear sunscreen	○	○
Washable floor mat	●	●
Beacon ready	●	●
Cat Stick Steer	○	○
Auxiliary relay	X	○

● Standard

○ Optional

X Not available

\*Not compatible with 360° visibility

\*\*For use with 360° visibility

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® C3.6 engine meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- 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 (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

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*\*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.*

## 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 (2.0 lb) of refrigerant which has a CO<sub>2</sub> equivalent of 1.418 metric tonnes (1.261 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) – 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
  - Smart mode matches machine power to digging requirements automatically
  - Eco mode supports reduced fuel consumption for light applications
  - One-touch low idle with automatic engine speed control
  - Increase operating efficiency with standard Cat technologies that help lower operator fatigue and operating costs
  - The latest hydraulic oil filter provides longer life with a 3,000-hour replacement interval
  - Remote Flash and Remote Troubleshoot



# 317

## Forestry Hydraulic Excavator

***The Cat® 317 Forest Excavator is specially modified for the tough terrain of forest applications. The machine features a tool control system to maximize the forestry work tools, as well as a specially designed boom and stick for forest. Count on the versatility of the 317 to perform the tasks you need for forest operations.***

### **Machine Modifications to meet Tough Terrain**

- Reach boom and 2.6 m (8'6") stick designed for forest applications.
- Additional mesh screen and covers prevent entry of dry, dead debris.
- Optional single grouser 600 mm (24") shoe for improved traction on slopes.
- Special tool tray located in front of the cab structure.
- Mounting points for fire extinguisher are offered from factory.
- Safety features such as rear and right-hand side cameras.
- Heavy duty bottom guard with openable gate under engine portion for cleaning.
- Tool control system for maximum harvester and grapple performance.



# 317 Hydraulic Excavator – Forestry Specifications

## Engine

Engine Model	Cat® C3.6	
Net Power		
ISO 9249	98.9 kW	133 hp
ISO 9249 (DIN)	134 hp (metric)	
Engine Power		
ISO 14396	100 kW	134 hp
ISO 14396 (DIN)	136 hp (metric)	
Bore	98 mm	4 in
Stroke	120 mm	5 in
Displacement	3.6 L	220 in <sup>3</sup>
Biodiesel Capability	Up to B20 <sup>(1)</sup>	

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- No engine power derate required below 3000 m (9,840 ft) altitude.
- 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 (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.

*\*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	8.70 rpm	
Maximum Swing Torque	65 kN·m	47,647 lbf·ft

## Weights

Operating Weight – Forest Harvester 17 300 kg 38,100 lb

- Reach boom, R2.6 (8'6") stick, GD 0.65 m<sup>3</sup> (0.85 yd<sup>3</sup>) bucket, and 500 mm (20") triple grouser shoes and 3.25 mt (7,165 lb) counterweight.

Operating Weight – Forest Grapple 17 300 kg 38,100 lb

- Reach boom, R2.6 (8'6") stick, GD 0.65 m<sup>3</sup> (0.85 yd<sup>3</sup>) bucket, and 500 mm (20") triple grouser shoes and 3.25 mt (7,165 lb) counterweight.

## Track

Track Shoes Width	500 mm	20 in
Track Shoes Width	600 mm	24 in
Track Shoes Width	700 mm	28 in
Number of Shoes (each side)	44	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

## Drive

Gradeability	35°/70%	
Maximum Travel Speed	5.3 km/h	3.3 mph
Maximum Drawbar Pull	157 kN	35,295 lbf

## Hydraulic System

Main System – Maximum Flow – Implement	296 L/min	78 gal/min
Maximum Pressure – Equipment – Implement	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	25 800 kPa	3,741 psi
Boom Cylinder – Bore	110 mm	4.3 in
Boom Cylinder – Stroke	1193 mm	47.0 in
Stick Cylinder – Bore	120 mm	5.5 in
Stick Cylinder – Stroke	1331 mm	52.4 in
Bucket Cylinder – Bore	105 mm	4.1 in
Bucket Cylinder – Stroke	1039 mm	40.9 in

## Service Refill Capacities

Fuel Tank Capacity	271 L	71.6 gal
Cooling System	28 L	7.4 gal
Engine Oil (with filter)	15 L	4.0 gal
Final Drive (each)	6 L	1.6 gal
Hydraulic System (including tank)	94 L	24.8 gal
Hydraulic Tank (including suction pipe)	87 L	23.0 gal
DEF Tank	22 L	5.8 gal

## Standards

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

## Sound Performance

ISO 6395:2008 (external)	101 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.

# 317 Hydraulic Excavator – Forestry Specifications

## Operating Weights and Ground Pressures

Base Machine Configurations	500 mm (20") Triple Grouser Shoes		600 mm (24") Single Grouser Shoes	600 mm (24") Triple Grouser Shoes		700 mm (28") Triple Grouser Shoes	
	Weight	Ground Pressure	Weight	Weight	Ground Pressure	Weight	Ground Pressure
Base Frame with Track Rollers and Carrier Rollers	kg (lb)	kPa (psi)	kg (lb)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
<b>3.25 mt (7,165 lb) Counterweight + Long Undercarriage Base Machine for Harvester</b>							
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	17 300 (38,100)	48.8 (7.1)	17 800 (39,200)	17 500 (38,600)	41.2 (6.0)	17 700 (39,100)	35.8 (5.2)
<b>3.25 mt (7,165 lb) Counterweight + Long Undercarriage Base Machine for Grapple</b>							
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	17 300 (38,100)	48.8 (7.1)	17 800 (39,300)	17 500 (38,600)	41.2 (6.0)	17 800 (39,100)	35.8 (5.2)
<b>3.77 mt (8,311 lb) Counterweight + Long Undercarriage Base Machine for Harvester</b>							
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	17 800 (39,200)	50.3 (7.3)	18 300 (40,400)	18 000 (39,700)	42.4 (6.1)	18 300 (40,300)	36.9 (5.4)
<b>3.77 mt (8,311 lb) Counterweight + Long Undercarriage Base Machine for Grapple</b>							
Reach Boom + R2.6 (8'6") Stick + 0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	17 800 (39,300)	50.3 (7.3)	18 300 (40,400)	18 000 (39,800)	42.5 (6.2)	18 300 (40,300)	36.9 (5.4)

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

# 317 Hydraulic Excavator – Forestry Specifications

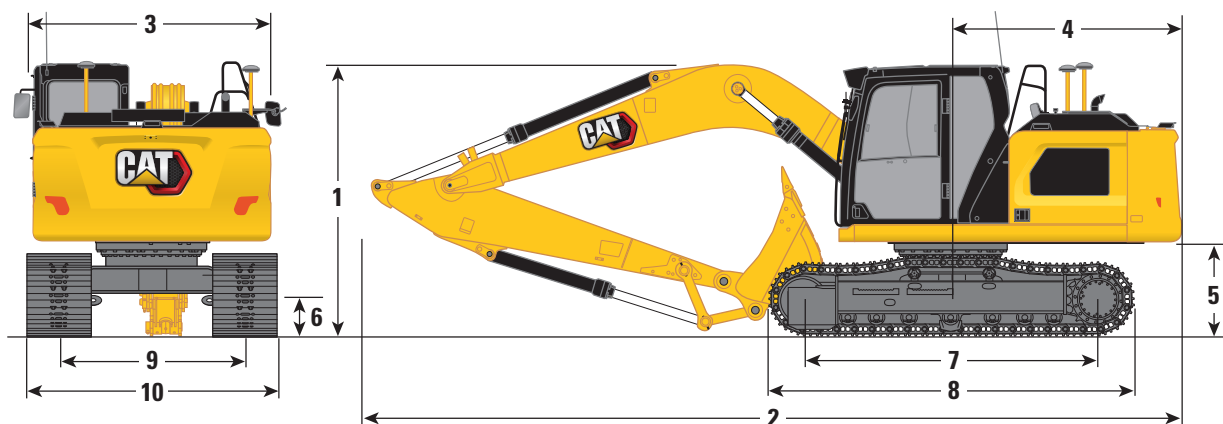
## Major Component Weights

	kg	lb
Base Machine Weight (with upper frame, undercarriage, counterweight – does not include boom, stick, bucket, boom cylinders, stick cylinder, bucket cylinders, tracks, fuel tank and operator).		
With 3.25 mt (7,165 lb) Counterweight for Grapple	11 730	25,860
With 3.25 mt (7,165 lb) Counterweight for Harvester	11 720	25,840
With 3.77 mt (8,311 lb) Counterweight for Grapple	12 250	27,010
With 3.77 mt (8,311 lb) Counterweight for Harvester	12 240	26,990
Track Shoes:		
500 mm (20") Triple Grouser Track Shoes	2020	4,660
600 mm (24") Single Grouser Track Shoes	2640	5,810
600 mm (24") Triple Grouser Track Shoes	2340	5,160
700 mm (28") Triple Grouser Track Shoes with Additional Steps	2580	5,680
Two Boom Cylinders	300	670
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	300	660
Counterweights:		
3.25 mt (7,165 lb) Counterweight	3250	7,165
3.77 mt (8,311 lb) Counterweight	3770	8,311
Swing Frame	1700	3,760
Undercarriage:		
Long Undercarriage	3900	8,600
Booms (including lines, pins, stick cylinder):		
Reach 5.1 m (16'9") Boom for Harvester	1320	2,910
Reach 5.1 m (16'9") Boom for Grapple	1360	2,990
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick 2.6 m (8'6") for Harvester	820	1,820
Reach Stick 2.6 m (8'6") for Grapple	840	1,860
Bucket (without linkage, with tips and side cutters):		
0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> ) GDX Bucket	600	1,320
0.80 m <sup>3</sup> (1.05 yd <sup>3</sup> ) GDX Bucket	660	1,455
Quick Coupler:		
Pin Grabber QC	260	580
Guard:		
OPG	130	280

# 317 Hydraulic Excavator – Forestry Specifications

## Dimensions

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



### Boom Option

Reach Boom  
5.1 m (16'9")

### Stick Option

Reach Stick  
R2.6 (8'6") for Forest

#### 1 Machine Height:\*

Top of Cab Height	2930 mm	9'7"
Top of OPG Height	3070 mm	10'1"
Handrails Height	2940 mm	9'8"
With Boom/Stick/Bucket Installed (with stick cylinder lines)	3030 mm	9'9"
With Boom/Stick Installed (with stick cylinder lines)	2940 mm	9'6"
With Boom Installed (with stick cylinder lines)	2520 mm	8'3"

#### 2 Machine Length:

With Boom/Stick/Bucket Installed (with stick cylinder lines)	8560 mm	28'1"
With Boom/Stick Installed (with stick cylinder lines)	8530 mm	27'11"
With Boom Installed (with stick cylinder lines)	7620 mm	25'0"

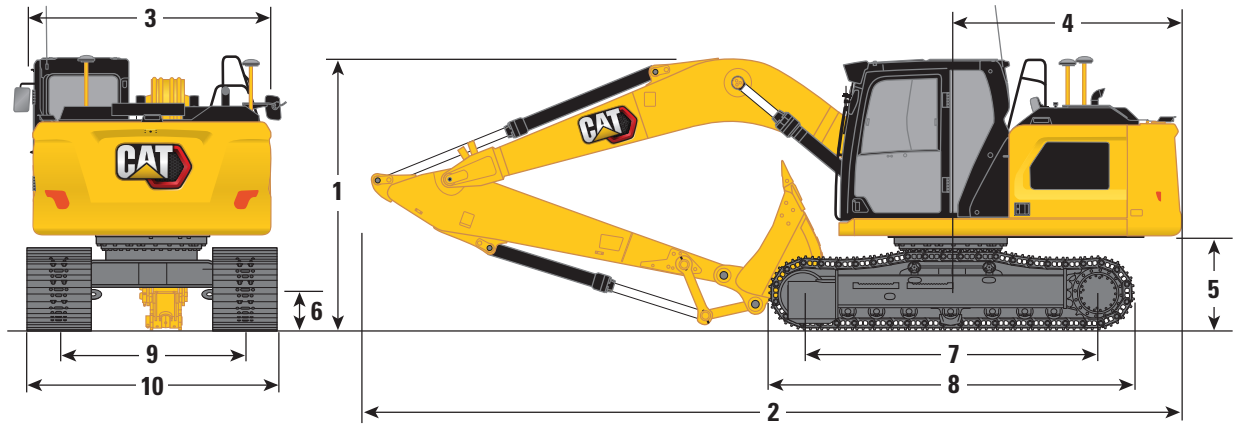
Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

\*For models with single grouser track shoes add 30 mm (1.2") to machine height dimensions.

# 317 Hydraulic Excavator – Forestry Specifications

## Dimensions

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

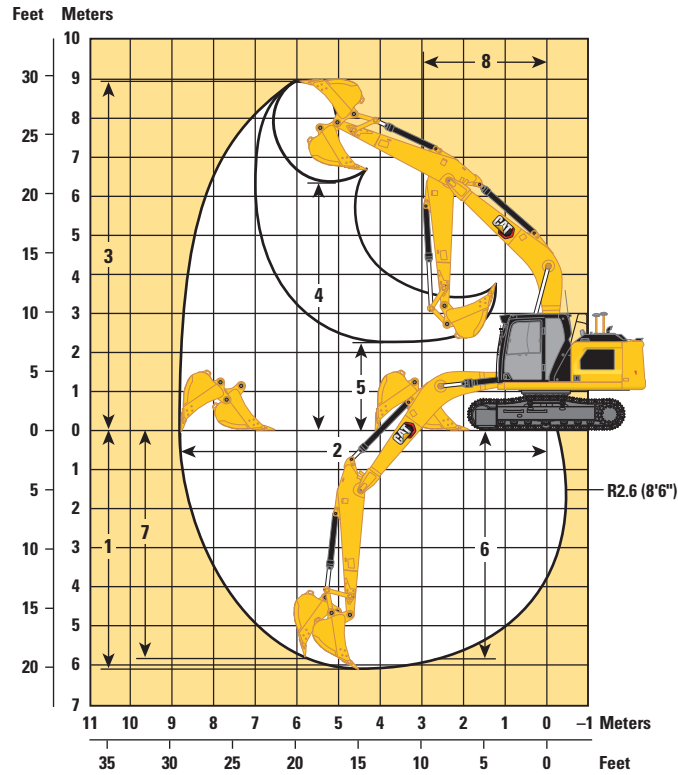


Boom Option	Reach Boom 5.1 m (16'9")	
Stick Option	Reach Stick R2.6 (8'6") for Forest	
<b>3</b> Upperframe Width	2540 mm	8'4"
<b>4</b> Tail Swing Radius:		
3.25 mt (7,165 lb) Counterweight	2500 mm	8'2"
3.77 mt (8,311 lb) Counterweight	2500 mm	8'2"
<b>5</b> Counterweight Clearance	1010 mm	3'4"
<b>6</b> Ground Clearance	430 mm	1'5"
<b>7</b> Length to Center of Rollers	3170 mm	10'5"
<b>8</b> Track Length	3970 mm	13'0"
<b>9</b> Track Gauge	1990 mm	6'6"
<b>10</b> Undercarriage Width:		
500 mm (20") Shoes	2490 mm	8'2"
600 mm (24") Shoes	2590 mm	8'6"
700 mm (28") Shoes	2690 mm	8'10"
Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

# 317 Hydraulic Excavator – Forestry Specifications

## Working Ranges and Forces

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



### Boom Option

Reach Boom  
5.1 m (16'9")

### Stick Option

Reach Stick  
R2.6 (8'6") for Forest

1 Maximum Digging Depth	6070 mm	19'11"
2 Maximum Reach at Ground Line	8760 mm	28'9"
3 Maximum Cutting Height	8950 mm	29'4"
4 Maximum Loading Height	6310 mm	20'8"
5 Minimum Loading Height	2320 mm	7'7"
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5880 mm	19'3"
7 Maximum Vertical Wall Digging Depth	5850 mm	19'2"
8 Minimum Working Equipment Radius	2980 mm	9'9"
Bucket Digging Force (ISO)	124 kN	27,880 lbf
Stick Digging Force (ISO)	80 kN	17,980 lbf
Bucket Type	GD	
Bucket Capacity	0.65 m <sup>3</sup>	0.85 yd <sup>3</sup>
Bucket Tip Radius	1375 mm	4'5"

# 317 Forestry Standard and Optional Equipment

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>BOOMS, STICKS AND LINKAGES</b>			<b>ELECTRICAL SYSTEM</b>		
5.1 m (16'9") Reach boom	✓		Maintenance free battery	✓	
2.6 m (8'6") Reach stick	✓		Centralized electrical disconnect switch	✓	
Bucket linkage, without lifting eye <sup>1</sup>	✓		Programmable time-delay LED working lights	✓	
<b>CAB</b>			LED chassis and left-side/right-side boom light – 1,800 lumens	✓	
ROPS	✓		LED cab lights – 1,800 lumens		✓
Operator Protective Guards (OPG)		✓	<b>ENGINE</b>		
High-resolution 254 mm (10") LCD touch screen monitor	✓		Cat C3.6 single turbo diesel engine	✓	
Auto bi-level air conditioner	✓		Three selectable modes: Power, Smart, Eco	✓	
Jog dial and shortcut keys for monitor control	✓		One-touch low idle with automatic engine speed control	✓	
Keyless push-to-start engine control	✓		Automatic engine shutdown	✓	
Height-adjustable console	✓		–18° C (–0° F) cold start capability		✓
Tilt-up left-side console	✓		–25° C (–13° F) cold start capability		✓
Heated air-suspension seat	✓		Two-stage fuel filtration system with water separator and indicator	✓	
51 mm (2") seat belt	✓		Sealed double element air filter with integrated precleaner	✓	
Monitor integrated Bluetooth radio with USB/Aux ports	✓		Electric fuel priming pump	✓	
12V DC outlets	✓		Electric cooling fans	✓	
Document storage	✓		<b>HYDRAULIC SYSTEM</b>		
Overhead storage and rear storage with nets	✓		Electronic main control valve	✓	
Beverage holder	✓		Single type electronic main pump	✓	
Cup holder	✓		Boom and stick regeneration circuits	✓	
Openable two-piece front window	✓		Boom and stick drift reduction valve	✓	
Rear window emergency exit	✓		Automatic hydraulic oil warm up	✓	
Radial wiper with washer	✓		Automatic two-speed travel	✓	
Openable polycarbonate skylight hatch	✓		Element type main hydraulic filter	✓	
LED dome light	✓		Hydraulic efficiency monitoring		✓
Roller front sunscreen	✓		*Connect subscription only. Additional subscriptions are available. Contact your Cat dealer for availability.		
Roller rear sunscreen		✓	<sup>1</sup> Optional for Harvester.		
Washable floor mat	✓		<i>(continued on next page)</i>		
Beacon ready	✓				
Cat Stick Steer		✓			
Auxiliary relay		✓			
<b>CAT TECHNOLOGY</b>					
VisionLink®	✓*				
Remote Flash	✓				
Remote Troubleshoot	✓				
Work tool recognition (PL161)	✓				
Work tool tracking (PL161)	✓				

# 317 Forestry 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
<b>SAFETY AND SECURITY</b>			<b>UNDERCARRIAGE AND STRUCTURES</b>		
Guard, Operator Protective Guards (OPG)	✓		500 mm (20") triple grouser track shoes		✓
Rear and right-side-view cameras	✓		600 mm (24") single grouser track shoes		✓
Ground level accessible secondary engine shutoff switch in cab	✓		600 mm (24") triple grouser track shoes		✓
Lockable disconnect switch	✓		700 mm (28") triple grouser track shoes with additional steps		✓
Service platform with anti-skid plate and countersunk bolts	✓		Grease lubricated track link	✓	
Signaling/warning horn	✓		Center track guiding guard	✓	
Swing alarm		✓	Two-piece segmented track guiding guard	✓	
Hydraulic lock out lever	✓		Bottom without swivel guard	✓	
Inspection lighting		✓	Travel motor guards	✓	
Auto Hammer Start	✓		3.25 mt (7,165 lb) counterweight	✓	
<b>SERVICE AND MAINTENANCE</b>			3.77 mt (8,311 lb) counterweight		✓
Side entry to service platform	✓		Tie-down points	✓	
Grouped engine oil and fuel filters	✓				
Ground level engine oil dipstick	✓				
Scheduled Oil Sampling (S·O·S <sup>SM</sup> ) ports	✓				
Integrated vehicle health management system	✓				



## Dealer Installed Kits and Attachments

Attachments may vary. Consult your Cat dealer for details.

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### CAB

- Radial lower wiper
- Left-hand and right-hand electrical pedal (two-way) for tool control
- Dual exit rear window kit
- Rain protector plus cab light cover
- Front windshield laminated glass (P5A glass, EU demolition regulation)
- Key fob (for use with Bluetooth receiver)

### SAFETY AND SECURITY

- 76 mm (3") retractable seat belt

### GUARDS

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



オフロード法2014年  
基準適合



国土交通省  
超低騒音型建設機械

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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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Based on the Labor, Safety and Health Laws in Japan, employer of small construction equipment are required to provide specific training for all operators on machines with ship weight less than 3 metric ton. For machines greater than 3 metric ton, operator needs to obtain operator license certification from a Government approved registered training school.

AEXQ4107-00 (11-2024)  
Build Number: 07H  
(Japan)

