



# Cat<sup>®</sup> 310

## MINI HYDRAULIC EXCAVATOR

### FEATURES:

The Cat<sup>®</sup> 310 Mini Excavator delivers maximum power and performance in a mini size to help you work in a wide range of applications.

#### ALL DAY COMFORT

- A sealed and pressurized cab is equipped with an improved air conditioning system, adjustable wrist rests and a suspension seat to help keep you working comfortably all day long.

#### EASY TO OPERATE

- Controls are easy to use and the intuitive Next Generation Monitor provides customizable machine operator preferences and easy to read machine information.

#### STICK STEER TRAVEL MODE

- Moving around the job site is even easier with the Cat Stick Steer option. Easily switch from traditional travel controls with levers and pedals to joystick controls with a push of a button. The benefit of less effort and improved control is in your hands!

#### BIG PERFORMANCE IN A MINI DESIGN

- Increased lifting, swinging, travel and multi-functioning performance helps you get the job done more efficiently, and blade float allows for easy clean up.

#### SAFETY ON THE JOB SITE

- Your safety is our top priority. The Cat Mini Excavator is designed to help keep you safe on the job. A back-up camera, courtesy work lights and a fluorescent retractable seat belt are just a few of the safety features we've built into the machine.

#### SIMPLE SERVICE FOR LESS DOWNTIME

- Maintenance is quick and easy on the Cat Mini Excavator. Routine check points are easy to access at ground level with grouped service points and robust service panels.

#### LOWER OPERATING COSTS

- Equipped with features such as auto idle, auto engine shutdown, and efficient hydraulics with a variable displacement pump, the Cat Mini Excavator was designed with reducing your operating costs in mind.

#### UNMATCHED DEALER SUPPORT

- Your Cat dealer is here to help you reach your business goals. From providing equipment solutions to operator training to service needs and beyond, your Cat dealer is ready to help.

## Specifications

### Engine

Engine Model	Cat <sup>®</sup> C3.3B	
U.S. EPA Tier 4 Final/EU Stage V		
<b>Net Power @ 2,200 rpm</b>		
ISO 9249:2007, 80/1269/EEC	51.8 kW	69.5 hp
<b>Gross Power</b>		
SAE J1995:2014	55.4 kW	74.3 hp
Bore	94 mm	3.7 in
Stroke	120 mm	4.7 in
Displacement	3.33 L	203 in <sup>3</sup>

- Net power advertised is the power available at the flywheel when the engine is equipped with air cleaner, exhaust system and fan.

### Weights

Minimum Operating Weight with Cab*	9601 kg	21,170 lb
Maximum Operating Weight with Cab**	10 182 kg	22,451 lb

\*Minimum Weight is based on steel tracks, no counterweight, operator, full fuel tank, long stick, blade and no bucket.

\*\*Maximum Weight is based on steel tracks with rubber pads, counterweight, operator, full fuel tank, long stick, blade and no bucket.

### Weight Increase from Minimum Configuration

Counterweight	250 kg	552 lb
Steel Tracks with Pads	330 kg	728 lb



# 310 Mini Hydraulic Excavator

## Travel System

Travel Speed – High	4.9 km/h	3.1 mph
Travel Speed – Low	2.6 km/h	1.6 mph
Maximum Traction Force – High Speed	28.9 kN	6,497 lb
Maximum Traction Force – Low Speed	84.8 kN	19,064 lb
Ground Pressure – Minimum Weight	41.68 kPa	6.0 psi
Ground Pressure – Maximum Weight	44.2 kPa	6.4 psi
Gradeability (maximum)	30 degrees	

## Service Refill Capacities

Cooling System	10.0 L	2.6 gal
Engine Oil	11.2 L	3.0 gal
Fuel Tank	145 L	38 gal
Hydraulic Tank	53 L	14 gal
Hydraulic System	140 L	37 gal

## Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow @ 2,400 rpm	233 L/min	62 gal/min
Operating Pressure – Equipment	285 bar	4,134 psi
Operating Pressure – Travel	285 bar	4,134 psi
Operating Pressure – Swing	230 bar	3,336 psi
Maximum Auxiliary Circuit – Primary		
Flow at Pump*	131 L/min	35 gal/min
Pressure at Pump*	285 bar	4,134 psi
Maximum Auxiliary Circuit – Secondary		
Flow at Pump*	33 L/min	9 gal/min
Pressure at Pump*	285 bar	4,134 psi
Digging Force – Stick	49.2 kN	11,060 lb
Digging Force – Bucket	77.7 kN	17,459 lb

\*Flow and pressure are not combinable. Under load, as flow rises pressure goes down.

## Swing System

Machine Swing Speed	10.6 rpm
---------------------	----------

## Blade

Width (Standard)	2470 mm	97.2 in
Width (Wide)	2640 mm	103.9 in
Height	431 mm	17.0 in

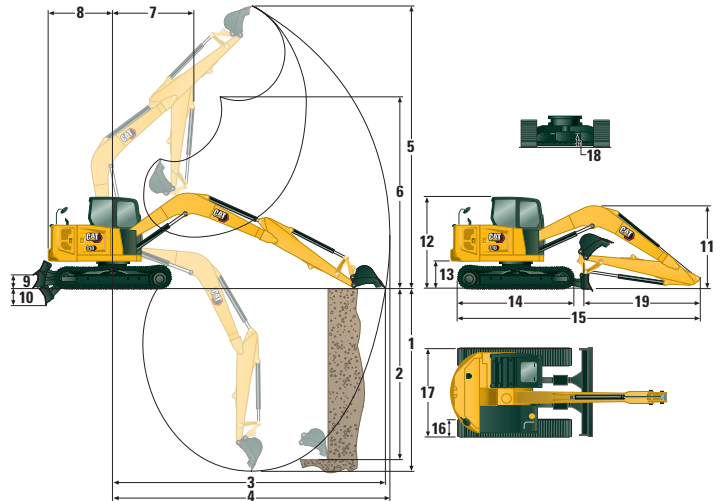
## Certification – Cab

Roll Over Protective Structure (ROPS)	ISO 12117-2:2008
Tip Over Protective Structure (TOPS)	ISO 12117:1997
Top Guard	ISO 10262:1998 (Level I)

## Sound

Operator Sound Pressure (ISO 6396:2008)	72 dB(A)
Average Exterior Sound Pressure (ISO 6395:2008)	99 dB(A)

• European Union Directive “2000/14/EC”



## Dimensions

1 Dig Depth	5211 mm	205.2 in
2 Vertical Wall	4385 mm	172.6 in
3 Maximum Reach at Ground Level	7570 mm	298.0 in
4 Maximum Reach	7695 mm	303.0 in
5 Maximum Dig Height	7970 mm	313.8 in
6 Maximum Dump Clearance	5829 mm	229.5 in
7 Boom in Reach	2116 mm	83.3 in
8 Tail Swing with Counterweight	1933 mm	76.1 in
Tail Swing without Counterweight	1800 mm	70.9 in
9 Maximum Blade Height	421 mm	16.6 in
10 Maximum Blade Depth	478 mm	18.8 in
11 Height		
Boom Transport – No Tools*	2550 mm	100.4 in
Boom Working – With Tools**	2700 mm	106.3 in
12 Cab Height	2541 mm	100.0 in
13 Swing Bearing Height	735 mm	28.9 in
14 Overall Undercarriage Length	3200 mm	126.0 in
15 Overall Shipping Length		
with Counterweight	6983 mm	274.9 in
without Counterweight	6850 mm	269.7 in
16 Track Belt/Shoe Width	450 mm	17.7 in
17 Overall Track Width	2470 mm	97.2 in
18 Ground Clearance	356 mm	14.0 in
19 Stick Length	2500 mm	98.4 in

\*Boom Height when stick is pinned in transport position (if available) with no attachments.

\*\*Boom Height when stick is pinned in working position with attachments.

## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg of refrigerant which has a CO<sub>2</sub> equivalent of 1.430 metric tonnes.

# 310 Mini Hydraulic Excavator

## Lift Capacities – Minimum Configuration<sup>1</sup>

Lift Point Height			3 m (9.8 ft)			4.5 m (14.8 ft)			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
4.5 m (14.8 ft)	Long Stick	kg (lb)				2680* (5,909*)	2680* (5,909*)	2680* (5,909*)	1545* (3,407*)	1545* (3,407*)	1545* (3,407*)	5.78 19.0
3 m (9.8 ft)	Long Stick	kg (lb)	3960* (8,732*)	3960* (8,732*)	3960* (8,732*)	2980* (6,571*)	2980* (6,571*)	2435 (5,369)	1530* (3,374*)	1530* (3,374*)	1530* (3,374*)	6.37 20.9
1.5 m (4.9 ft)	Long Stick	kg (lb)	5110* (11,268*)	5110* (11,268*)	4175 (9,206)	3370* (7,431*)	2790 (6,152)	2250 (4,961)	1610* (3,550*)	1610* (3,550*)	1240 (2,734)	6.58 21.6
0 m (0 ft)	Long Stick	kg (lb)	5430* (11,973*)	5430* (11,973*)	3830 (8,445)	3550* (7,828*)	2625 (5,788)	2100 (4,631)	1815* (4,002*)	1530 (3,374)	1245 (2,745)	6.45 21.2

<sup>1</sup>Minimum Weight includes steel tracks, no counterweight, operator, full fuel tank, long stick, blade and no bucket.

## Lift Capacities – Maximum Configuration<sup>2</sup>

Lift Point Height			3 m (9.8 ft)			4.5 m (14.8 ft)			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
4.5 m (14.8 ft)	Long Stick	kg (lb)				2680* (5,909*)	2680* (5,909*)	2680* (5,909*)	1545* (3,407*)	1545* (3,407*)	1545* (3,407*)	5.78 19.0
3 m (9.8 ft)	Long Stick	kg (lb)	3960* (8,732*)	3960* (8,732*)	3960* (8,732*)	2980* (6,571*)	2980* (6,571*)	2980* (6,571*)	1530* (3,374*)	1530* (3,374*)	1530* (3,374*)	6.37 20.9
1.5 m (4.9 ft)	Long Stick	kg (lb)	5110* (11,268*)	5110* (11,268*)	5110* (11,268*)	3370* (7,431*)	3370* (7,431*)	2485 (5,479)	1610* (3,550*)	1610* (3,550*)	1390 (3,065)	6.58 21.6
0 m (0 ft)	Long Stick	kg (lb)	5430* (11,973*)	5430* (11,973*)	4250 (9,371)	3550* (7,828*)	2910 (6,417)	2335 (5,149)	1815* (4,002*)	1815* (4,002*)	1395 (3,076)	6.45 21.2

<sup>2</sup>Maximum Weight includes steel tracks with rubber pads, counterweight, operator, full fuel tank, long stick, blade and no bucket.

\*The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for long stick.

# 310 Mini Hydraulic Excavator

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>ENGINE</b>			<b>OPERATOR ENVIRONMENT (CONTINUED)</b>		
Cat C3.3B Diesel Engine (U.S. EPA Tier 4 Final/EU Stage V) – Electronic Engine, Turbo, Diesel Particulate Filter (DPF)	✓		Next Generation Advanced Monitor <i>(below are all included with Next Generation Advanced Monitor option)</i>		✓
Automatic Engine Idle	✓		– Touch Screen		
Automatic Engine Shutdown	✓		– Site Reference System		
Automatic Swing Brake	✓		– High Definition Camera Capable (IP68 & IP69K)		
Automatic Two Speed Travel	✓		– Numeric Security Code		
Fuel Water Separator with Indicator	✓		<b>UNDERCARRIAGE</b>		
Radial Seal – Double Element Air Filter	✓		Greased and Lubricated Track	✓	
Extended Life Coolant, –37° C (–37° F)	✓		Tie Down Eyes on Track Frame	✓	
<b>HYDRAULICS</b>			Dozer Straight Blade	✓	
Electronic Variable Displacement Piston Pump	✓		Wide Dozer Blade		✓
Load Sensing/Flow Sharing Hydraulics	✓		Dozer Float	✓	
Power On Demand	✓		Bolt-on, Reversible Wear Edge	✓	
Hydraulic Temperature Monitoring	✓		Steel Tracks (450 mm/17.7 in wide)		✓
Certified Accumulator	✓		Wide Steel Tracks (600 mm/23.6 in)		✓
HYDO Advanced Hydraulic Oil	✓		Steel Track with Rubber Pads		✓
<b>OPERATOR ENVIRONMENT</b>			Track Guides		✓
Top Guard ISO 10262 1998 Level I	✓		<b>BOOM, STICK AND LINKAGES</b>		
TOPS – ISO 12117:1997	✓		One Piece Boom (4300 mm/169.3 in)	✓	
ROPS ISO 12117-2:2008	✓		Long Stick (2200 mm/86.6 in)		✓
Stick Steer Mode	✓		Front Shovel Capable – Pin-on/Manual Coupler/Hydraulic Coupler for Cat Tools <i>(not available in all regions)</i>	✓	
Travel Cruise Control	✓		Thumb Ready <i>(not available in all regions)</i>	✓	
Control Pattern Changer	✓		Attachments including Buckets, Augers and Hammers		✓
Adjustable Wrist Rests	✓		2nd Auxiliary Hydraulic Lines		✓
Molded Footrests	✓		Boom Lowering Check Valve		✓
Removable, Washable Floor Mat	✓		Stick Lowering Check Valve		✓
Travel Pedals and Hand Levers	✓		Certified Lifting Eye		✓
Cat Key with Passcode Option	✓		<b>ELECTRICAL</b>		
Push to Start with Bluetooth® Key		✓	12 Volt Electrical System	✓	
HVAC with Automatic Temperature Control	✓		90 Ampere Alternator	✓	
Hydraulic Lockout Controls	✓		900 CCA Maintenance Free Battery	✓	
Integrated Lower Front Window	✓		Battery Disconnect	✓	
Assisted Front Window Overhead Storage	✓		Ignition Key Stop Switch	✓	
Rear Window Emergency Exit	✓		Product Link Elite (regulations apply)		✓
Fabric, High Back, Suspension Seat	✓		Travel Alarm	✓	
Air Suspension Heated Seat		✓	Rearview Camera		✓
Retractable Seat Belt (75 mm/3 in)	✓		Rotating Beacon		✓
Coat Hook	✓		<b>GUARDING</b>		
Cup Holder	✓		Mesh Front Guard ISO 10262 1998 Level I		✓
LED Interior Light	✓		Heavy Duty Front Guard ISO 10262 1998 Level II		✓
Literature Holder	✓		Top Cab Guard ISO 10262 1998 Level II		✓
Mounting Bosses for Top and Front Guards	✓		Polycarbonate Front Window EN356 P5A (Cab Only)		✓
12V Power Socket	✓		<b>OTHER</b>		
Radio – Bluetooth, Auxiliary, Microphone, USB (charging only)	✓		Locks on External Enclosure Doors	✓	
Skylight	✓		Lockable Fuel Cap	✓	
Signaling/Warning Horn	✓		Beacon Socket	✓	
Cab and (left side) Boom Work Lights	✓		Rear Reflectors	✓	
Utility Space for Mobile Phone	✓		Water Jacket Heater		✓
Rain Visor		✓	Refueling Pump		✓
Next Generation Color LCD Monitor (IP66)	✓				
– Jog Dial Interface	✓				
– Fuel Level and Coolant Temperature Gauges	✓				
– Maintenance and Machine Monitoring	✓				
– Performance and Machine Adjustments	✓				
– Numeric Security Code	✓				
– Multiple Languages	✓				
– Camera Ready (IP68 & IP69K)	✓				
– Hour Meter with Wake Up Switch	✓				

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

© 2021 Caterpillar  
All rights reserved

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

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Corporate Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEHQ8156-02 (01-2021)  
Replaces AEHQ8156-01  
Build Number: 07A  
(North America, Europe,  
Australia/New Zealand)

