



# Cat<sup>®</sup> 301.8

## MINI EXCAVATOR

### FEATURES:

The Cat<sup>®</sup> 301.8 Mini Excavator delivers power and performance in a compact size to help you work in a wide range of applications.

### ALL DAY COMFORT

- Choose either a canopy or a sealed and pressurized cab equipped with air conditioning, adjustable wrist rests, and a suspension seat option to help keep you working comfortably all day long.

### EASY TO OPERATE

- Controls are easy to use and the intuitive Next Generation LCD monitor provides 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 COMPACT DESIGN

- Strong lift and dig performance helps you get the job done faster. The retractable undercarriage lets you access and work in the tightest areas. Dig-to-blade and dozer float features allow 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. Courtesy work lights and a fluorescent retractable seat belt are just a couple 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 through the side doors. The unique tilt up cab lets you reach additional service areas when needed.

### 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	C1.1	
<b>Net Power @ 2,400 rpm</b>		
ISO 9249, 80/1269/EEC	15.7 kW	21 hp
<b>Gross Power</b>		
SAE J1995:2014	16.1 kW	21.6 hp
Bore	77.0 mm	3.0 in
Stroke	81.0 mm	3.2 in
Displacement	1.1 L	69.0 in <sup>3</sup>

- Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Net power is tested per ISO 9249:2007 and 80/1269/EEC.
- Engine power is tested per ISO 14396:2002.
- Net power advertised is the power available at the flywheel when the engine is at rated speed and rated power when the engine is installed with the factory configured fan, air intake system, exhaust system, and alternator with a minimum alternator load.

### Weights

Minimum Operating Weight with Canopy*	1725 kg	3,803 lb
Maximum Operating Weight with Canopy**	1905 kg	4,211 lb
Minimum Operating Weight with Cab*	1848 kg	4,075 lb
Maximum Operating Weight with Cab**	2029 kg	4,473 lb
EU: CE Plate Weight with Canopy***	1880 kg	4,145 lb
EU: CE Plate Weight with Cab***	2000 kg	4,409 lb

\*Minimum Weight is based on rubber tracks, operator, fixed undercarriage and full fuel tank.

\*\*Maximum Weight is based on steel tracks, operator, expandable undercarriage and full fuel tank.

\*\*\*CE Plate Weight is based on the most common EU configuration. Includes 75 kg (165 lb) operator and full fuel tank and excludes bucket.

### Weight Increase from Minimum Configuration

Long Stick	8 kg	18 lb
Steel Tracks	50 kg	110 lb
Expandable Undercarriage	123 kg	271 lb



# 301.8 Mini Excavator

## Travel System

Travel Speed – High	4.4 km/h	2.7 mph
Travel Speed – Low	2.9 km/h	1.8 mph
Maximum Traction Force – High Speed	11.9 kN	2,675.2 lbf
Maximum Traction Force – Low Speed	18.4 kN	4,136.5 lbf
Ground Pressure – Minimum Weight	26.8 kPa	3.9 psi
Ground Pressure – Maximum Weight	29.6 kPa	4.3 psi
Gradeability (maximum)	30 degrees	

## Service Refill Capacities

Cooling System	3.9 L	1.0 gal
Engine Oil	4.4 L	1.2 gal
Fuel Tank	26.0 L	6.9 gal
Hydraulic Tank	18.0 L	4.8 gal
Hydraulic System	26.0 L	6.9 gal

## Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow @ 2,400 rpm	66 L/min	17.4 gal/min
Operating Pressure – Equipment	245 bar	3,553.4 psi
Operating Pressure – Travel	245 bar	3,553.4 psi
Operating Pressure – Swing	147 bar	2,132.1 psi
Auxiliary Circuit – Primary		
Flow	33 L/min	8.7 gal/min
Pressure	245 bar	3,553.4 psi
Auxiliary Circuit – Secondary		
Flow	14 L/min	3.7 gal/min
Pressure	245 bar	3,553.4 psi
Digging Force – Stick (standard)	11.3 kN	2,540.3 lbf
Digging Force – Stick (long)	9.8 kN	2,203.1 lbf
Digging Force – Bucket	19.6 kN	4,406.3 lbf

## Swing System

Machine Swing Speed	9.8 rpm
---------------------	---------

## Blade

Width*	990 mm	39.0 in
Height	225 mm	8.9 in

\*Expanded – 1300 mm (51 in)

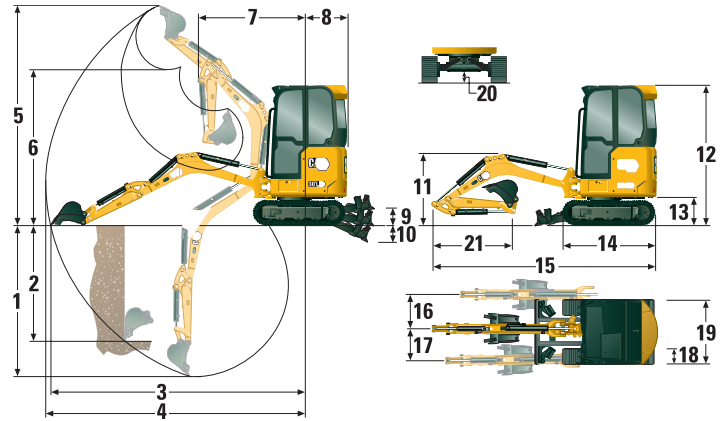
## Certification – Cab and Canopy

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)	73 dB(A)
Average Exterior Sound Pressure (ISO 6395:2008)	93 dB(A)

• European Union Directive “2000/14/EC”



## Dimensions

	Standard Stick	Long Stick
1 Dig Depth	2370 mm (93.3 in)	2570 mm (101.2 in)
2 Vertical Wall	1850 mm (72.8 in)	1940 mm (76.4 in)
3 Maximum Reach at Ground Level	3800 mm (149.6 in)	3960 mm (155.9 in)
4 Maximum Reach	3870 mm (152.4 in)	4030 mm (158.7 in)
5 Maximum Dig Height	3550 mm (139.8 in)	3620 mm (142.5 in)
6 Maximum Dump Clearance	2560 mm (100.8 in)	2640 mm (103.9 in)
7 Boom in Reach	1420 mm (55.9 in)	1420 mm (55.9 in)
8 Tail Swing	995 mm (39.2 in)	995 mm (39.2 in)
9 Maximum Blade Height	270 mm (10.6 in)	270 mm (10.6 in)
10 Maximum Blade Depth	265 mm (10.4 in)	265 mm (10.4 in)
11 Boom Height in Shipping Position	1070 mm (42.1 in)	1020 mm (40.2 in)
12 Overall Shipping Height	2300 mm (90.6 in)	2300 mm (90.6 in)
13 Swing Bearing Height	442 mm (17.4 in)	442 mm (17.4 in)
14 Overall Undercarriage Length	1590 mm (62.6 in)	1590 mm (62.6 in)
15 Overall Shipping Length†	3720 mm (146.5 in)	3710 mm (146.1 in)
16 Boom Swing Right	50 degrees	50 degrees
17 Boom Swing Left	65 degrees	65 degrees
18 Track Belt/Shoe Width	230 mm (9.1 in)	230 mm (9.1 in)
19 Track Width		
Retracted	990 mm (39.0 in)	990 mm (39.0 in)
Expanded	1300 mm (51.18 in)	1300 mm (51.18 in)
20 Minimum Ground Clearance Below Undercarriage	150 mm (5.9 in)	150 mm (5.9 in)
21 Stick Length	960 mm (37.8 in)	1160 mm (45.7 in)

†Overall Shipping Length depends on blade position during shipment.

## Lift Capacities – Minimum Configuration\*

Lift Point Height			2 m (6.6 ft)			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Up	Blade Down		Blade Up	Blade Down		
2 m (6.6 ft)	Standard Stick	kg (lb)				320 (712)	377 (833)	230 (512)	3.0 (10.0)
	Long Stick	kg (lb)				291 (647)	302 (667)	208 (463)	3.2 (10.8)
1.5 m (4.9 ft)	Standard Stick	kg (lb)	502 (1,078)	502 (1,078)	417 (900)	284 (628)	370 (816)	203 (450)	3.2 (10.8)
	Long Stick	kg (lb)	379 (820)	379 (820)	379 (820)	261 (577)	300 (660)	186 (411)	3.4 (11.7)
1 m (3.3 ft)	Standard Stick	kg (lb)	568 (1,224)	718 (1,536)	393 (850)	266 (587)	379 (834)	190 (419)	3.3 (11.7)
	Long Stick	kg (lb)	573 (1,234)	627 (1,342)	397 (857)	245 (542)	308 (678)	174 (384)	3.5 (11.7)
0 m (0 ft)	Standard Stick	kg (lb)	533 (1,148)	811 (1,750)	362 (782)	267 (588)	389 (857)	189 (417)	3.3 (10.8)
	Long Stick	kg (lb)	528 (1,138)	818 (1,762)	357 (772)	245 (539)	364 (802)	172 (379)	3.5 (11.7)

\*Minimum Weight includes rubber tracks, canopy, operator, full fuel tank, fixed undercarriage, and no bucket.

## Lift Capacities – Maximum Configuration\*\*

Lift Point Height			2 m (6.6 ft)			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Up	Blade Down		Blade Up	Blade Down		
2 m (6.6 ft)	Standard Stick	kg (lb)				377 (833)	377 (833)	377 (833)	3.0 (10.0)
	Long Stick	kg (lb)				302 (667)	302 (667)	302 (667)	3.2 (10.8)
1.5 m (4.9 ft)	Standard Stick	kg (lb)	502 (1,078)	502 (1,078)	502 (1,078)	341 (754)	370 (816)	354 (783)	3.2 (10.8)
	Long Stick	kg (lb)	379 (820)	379 (820)	379 (820)	300 (660)	300 (660)	300 (660)	3.4 (11.7)
1 m (3.3 ft)	Standard Stick	kg (lb)	675 (1,456)	718 (1,536)	696 (1,501)	321 (708)	379 (834)	333 (736)	3.3 (11.7)
	Long Stick	kg (lb)	627 (1,342)	627 (1,342)	627 (1,342)	297 (655)	308 (678)	308 (678)	3.5 (11.7)
0 m (0 ft)	Standard Stick	kg (lb)	640 (1,379)	811 (1,750)	662 (1,426)	323 (711)	389 (857)	335 (739)	3.3 (10.8)
	Long Stick	kg (lb)	636 (1,370)	818 (1,762)	657 (1,416)	297 (655)	364 (802)	309 (682)	3.5 (11.7)

\*\*Maximum Weight includes steel tracks, canopy, operator, full fuel tank, expanded undercarriage, and no bucket.

# 301.8 Mini 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 C1.1 Engine (U.S. EPA Tier 4 Final/EU Stage V)	✓		Radio – Bluetooth®, Auxiliary, Microphone, USB (charging only) (Cab only)		✓
Automatic Engine Idle	✓		Next Generation Color LCD Monitor (IP66)	✓	
Automatic Engine Shutdown	✓		– Fuel Level and Coolant Temperature Gauges	✓	
Automatic Two Speed Travel	✓		– Maintenance and Machine Monitoring	✓	
Fuel Water Separator	✓		– Performance and Machine Adjustments	✓	
Power on Demand (not available in all regions)	✓		– Numeric Security Code	✓	
Variable Displacement Piston Pump	✓		– Multiple Languages	✓	
Load Sensing/Flow Sharing Hydraulics	✓		– Hour Meter with Wake Up Switch	✓	
<b>HYDRAULICS</b>			<b>UNDERCARRIAGE</b>		
Smart Tech Electronic Pump	✓		Expandable Undercarriage	✓	
Accumulator	✓		Rubber Belt (250 mm/10 in wide)	✓	
Automatic Swing Brake	✓		Steel Track (250 mm/10 in wide)		✓
Auxiliary Hydraulic Lines	✓		Dozer Blade	✓	
One and Two Way Auxiliary Flow	✓		Dozer Blade Float	✓	
Continuous Auxiliary Flow	✓		Hydraulic Track Adjusters	✓	
Auxiliary Line Quick Disconnects	✓		Tie Downs on Track Frame	✓	
<b>OPERATOR ENVIRONMENT</b>			<b>BOOM, STICK AND LINKAGES</b>		
Tilt-up Canopy or Tilt-Up Cab	✓		One Piece Boom (1850 mm/73 in)	✓	
Cab with Air Conditioning		✓	Standard Stick (960 mm/37.8 in)	✓	
Cab with Heater		✓	Long Stick (1160 mm/45.7 in)		✓
Top Guard ISO 10262:1998 Level I	✓		Front Shovel Capable	✓	
ROPS – ISO 12117-2:2008	✓		Pin-On	✓	
TOPS – ISO 12117:1997	✓		Dual Lock Manual Coupler		✓
Machine 2-Point Lifting	✓		Thumb Ready (not available in all regions)	✓	
Stick Steer Mode	✓		Certified Lifting Eye (optional in some regions)	✓	
Travel Cruise Control	✓		Attachments including Couplers, Thumbs, Buckets, Augers and Hammers		✓
Control Pattern Changer (optional in some regions)	✓	✓	2nd Auxiliary Hydraulic Lines		✓
Adjustable Wrist Rests	✓		Boom Lowering Check Valve		✓
Washable Floor Mat	✓		Stick Lowering Check Valve		✓
Travel Pedals and Hand Levers	✓		Hydraulic Quick Coupler Lines (not available in all regions)		✓
No Travel Pedals and Hand Levers		✓	<b>ELECTRICAL</b>		
Machine Security	✓		12 Volt Battery	✓	
Standard Key with Pass Code	✓		Software (machine and monitor)	✓	
Push to Start with Key Fob/Pass Code		✓	Maintenance Free Battery	✓	
Vinyl Non-Suspension Seat	✓		Battery Disconnect		✓
Fabric Suspension Seat (Cab only)	✓		Signaling/Warning Horn	✓	
Vinyl Suspension Seat (Canopy only)		✓	12 Volt Power Socket	✓	
Hydraulic Lockout – All Controls	✓		Product Link PL243 (regulations apply)		✓
Retractable High Visibility Seat Belt (75 mm/3 in)	✓		Product Link PLE643 (regulations apply)		✓
Coat Hook	✓		Travel Alarm (standard in some regions)		✓
Cup Holder	✓		<b>GUARDING</b>		
Storage Pocket	✓		Guard, Canopy		✓
Skylight	✓		Guard, Mesh		✓
Mounting Bosses for Front	✓		<b>OTHER</b>		
Signaling/Warning Horn	✓		Bio Oil Capable		✓
Interior Light (Cab only)	✓		Eco Drain		✓
Boom Light, Halogen	✓		Water Jacket Heater		✓
LED Front Lights		✓			
LED Front and Rear Lights		✓			
LED Boom Light		✓			
Utility Space for Mobile Phone	✓				
Mirrors Left and Right		✓			

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)

© 2020 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.

AEHQ8148-03 (08-2020)  
Replaces AEHQ7811-02  
Build Number: 05A  
(North America, EU, ANZ)

