



Cat[®] 301.8

MINI EXCAVATOR

FEATURES:

The Cat[®] 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	
Rated Net Power @ 2,400 rpm		
ISO 9249/EEC 80/1269	14.3 kW	19.2 hp
Gross Power		
ISO 14396	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 ³

Weights

Minimum Operating Weight with Canopy*	1718 kg	3,788 lb
Maximum Operating Weight with Canopy**	1898 kg	4,184 lb
Minimum Operating Weight with Cab	1835 kg	4,045 lb
Maximum Operating Weight with Cab	2015 kg	4,442 lb

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

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

Weight Increase from Minimum Configuration

Long Stick	7 kg	15 lb
Steel Tracks	50 kg	110 lb
Expandable Undercarriage	123 kg	271 lb



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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
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Blade

Width*	990 mm	39.0 in
Height	225 mm	8.9 in

*Expanded – 1300 mm (51 in)

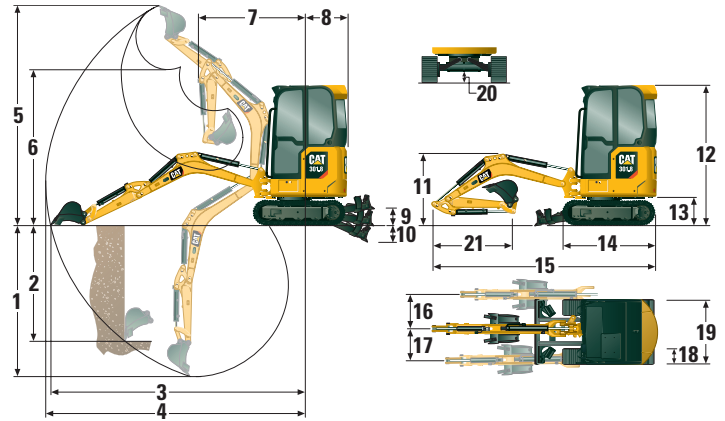
Certification – Cab and Canopy

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	4110 mm (161.8 in)	4270 mm (168.1 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.

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EQUIPMENT

ENGINE

- Cat C1.1 Engine (U.S. EPA Tier 4 Final/ EU Stage V)
- Automatic Engine Idle
- Automatic Engine Shutdown
- Automatic Two Speed Travel
- Fuel Water Separator
- Power on Demand (not available in all regions)
- Variable Displacement Piston Pump
- Load Sensing/Flow Sharing Hydraulics

HYDRAULICS

- Smart Tech Electronic Pump
- Accumulator
- Automatic Swing Brake
- Auxiliary Hydraulic Lines
- One and Two Way Auxiliary Flow
- Continuous Auxiliary Flow
- Auxiliary Line Quick Disconnects

OPERATOR ENVIRONMENT

- Cab or Canopy
- ROPS – ISO 12117-2:2008
- TOPS – ISO 12117:1997
- Top Guard – ISO 10262:1998 (Level I)
- Cab HVAC or Heat Only
- Next Generation Standard LCD Monitor
- Machine Security – Standard Key with Pass Code or Push to Start with Fob
- Adjustable Wrist Rests
- Fabric or Vinyl Seat
- Retractable High Visibility Seat Belt (75 mm/3 in)
- Coat Hook
- Cup Holder
- Cab Interior Light
- Storage Pocket
- Skylight
- Washable Floor Mat
- Travel Pedals and Levers
- Next Generation Stick Steer
- Hydraulic Lockout – All Controls
- Machine 2-Point Lifting
- Tilt-up Cab or Canopy
- Bluetooth® Capable (Cab only)

UNDERCARRIAGE

- Fixed or Expandable Undercarriage
- Rubber Belt or Steel Track (250 mm/9.8 in wide)
- Dozer Blade with Float
- Tie Downs on Track Frame

BOOM, STICK AND LINKAGES

- One Piece Boom (1850 mm/73 in)
- Standard Stick (960 mm/37.8 in) or Long Stick (1160 mm/45.7 in)
- Front Shovel Capable (Pin-On/ Manual Coupler/Hydraulic Coupler – not available in all regions)
- Thumb Ready (not available in all regions)
- Certified Lifting Eye (not available in all regions)

ELECTRICAL

- 12 Volt Battery
- Software (machine and monitor)
- Maintenance Free Battery
- Warning Horn
- 12 Volt Power Socket
- Boom Light, Halogen
- Pattern Changer

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

- Cab Radio
- Mirrors Left and Right

ELECTRICAL

- Product Link™
- LED Front Lights
- LED Front and Rear Lights
- LED Boom Light
- Battery Disconnect

OTHER

- Attachments including Buckets, Augers and Hammers
- Travel Alarm (standard in some regions)
- Water Jacket Heater
- Eco Drain
- Guard, Canopy
- Guard, Mesh
- Quick Coupler Lines
- Thumb Bracket (standard in some regions)
- Secondary Auxiliaries
- Bio Oil Capable
- No Travel Pedals and Levers
- Boom Lowering Check Valve
- Stick Lowering Check Valve

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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