



Cat[®] 301.5

MINI EXCAVATOR

FEATURES:

The Cat[®] 301.5 Mini Excavator delivers power and performance in a compact size to help you work in a wide range of applications.

ALL DAY COMFORT

- Adjustable wrist rests and a suspension seat option 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 canopy 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	
Net Power @ 2,400 rpm		
ISO 9249, 80/1269/EEC	15.7 kW	21 hp
Gross Power		
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 ³

- 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*	1580 kg	3,483 lb
Maximum Operating Weight with Canopy**	1775 kg	3,913 lb
EU: CE Plate Weight***	1740 kg	3,836 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	57 kg	126 lb
Expandable Undercarriage	129 kg	284 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	10.3 kN	2,315.5 lbf
Maximum Traction Force – Low Speed	16.0 kN	3,597.0 lbf
Ground Pressure – Minimum Weight	27.3 kPa	4.0 psi
Ground Pressure – Maximum Weight	30.6 kPa	4.4 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	22.0 L	5.8 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	213 bar	3,089.3 psi
Operating Pressure – Travel	213 bar	3,089.3 psi
Operating Pressure – Swing	103 bar	1,493.9 psi
Auxiliary Circuit – Primary		
Flow	33 L/min	8.7 gal/min
Pressure	213 bar	3,089.3 psi
Auxiliary Circuit – Secondary		
Flow	14 L/min	3.7 gal/min
Pressure	213 bar	3,089.3 psi
Digging Force – Stick (standard)	8.2 kN	1,843.4 lbf
Digging Force – Stick (long)	7.2 kN	1,616.4 lbf
Digging Force – Bucket	14.1 kN	3,169.8 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)

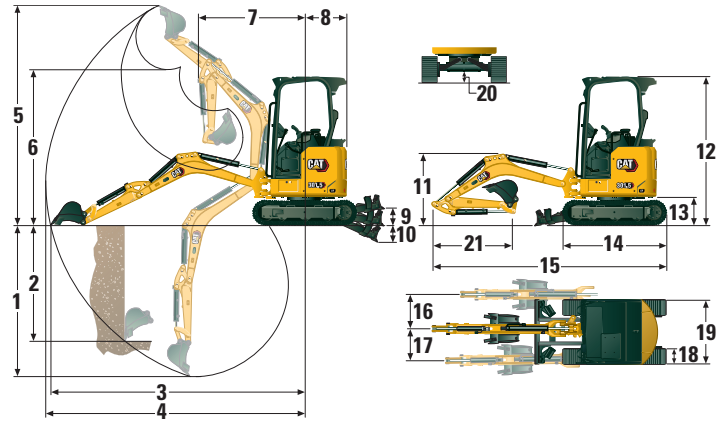
Certification – Canopy

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

Average Exterior Sound Pressure (ISO 6395:2008)	93 dB(A)
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• European Union Directive “2000/14/EC”



Dimensions

	Standard Stick	Long Stick
1 Dig Depth	2340 mm (92.1 in)	2540 mm (100.0 in)
2 Vertical Wall	1800 mm (70.9 in)	1890 mm (74.4 in)
3 Maximum Reach at Ground Level	3730 mm (146.9 in)	3890 mm (153.1 in)
4 Maximum Reach	3800 mm (149.6 in)	3960 mm (155.9 in)
5 Maximum Dig Height	3430 mm (135.0 in)	3490 mm (137.4 in)
6 Maximum Dump Clearance	2450 mm (96.5 in)	2510 mm (98.8 in)
7 Boom in Reach	1460 mm (57.5 in)	1450 mm (57.1 in)
8 Tail Swing	820 mm (32.3 in)	820 mm (32.3 in)
9 Maximum Blade Height	275 mm (10.8 in)	275 mm (10.8 in)
10 Maximum Blade Depth	260 mm (10.2 in)	260 mm (10.2 in)
11 Boom Height in Shipping Position	1090 mm (42.9 in)	1040 mm (40.9 in)
12 Overall Shipping Height	2310 mm (90.9 in)	2310 mm (90.9 in)
13 Swing Bearing Height	445 mm (17.5 in)	445 mm (17.5 in)
14 Overall Undercarriage Length	1460 mm (57.5 in)	1460 mm (57.5 in)
15 Overall Shipping Length†	3620 mm (142.5 in)	3590 mm (141.3 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	155 mm (6.1 in)	155 mm (6.1 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)				242 (540)	290 (641)	182 (407)	2.9 (9.6)
	Long Stick	kg (lb)				218 (487)	230 (508)	164 (365)	3.1 (10.2)
1.5 m (4.9 ft)	Standard Stick	kg (lb)	384 (828)	384 (828)	324 (699)	212 (471)	283 (625)	159 (353)	3.2 (10.3)
	Long Stick	kg (lb)				194 (429)	227 (501)	144 (319)	3.3 (10.9)
1 m (3.3 ft)	Standard Stick	kg (lb)	412 (888)	584 (1,249)	303 (655)	198 (437)	289 (637)	147 (325)	3.3 (10.7)
	Long Stick	kg (lb)	415 (896)	495 (1,059)	306 (661)	181 (399)	234 (514)	134 (295)	3.4 (11.3)
0 m (0 ft)	Standard Stick	kg (lb)	379 (818)	704 (1,518)	273 (590)	197 (435)	343 (756)	146 (322)	3.2 (10.5)
	Long Stick	kg (lb)	375 (808)	703 (1,514)	269 (581)	179 (395)	277 (611)	131 (290)	3.4 (11.1)

*Minimum Weight includes rubber tracks, canopy, operator, full fuel tank, expanded 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)				269 (601)	290 (641)	290 (641)	2.9 (9.6)
	Long Stick	kg (lb)				230 (508)	230 (508)	230 (508)	3.1 (10.2)
1.5 m (4.9 ft)	Standard Stick	kg (lb)	384 (828)	384 (828)	384 (828)	237 (526)	283 (625)	272 (602)	3.2 (10.3)
	Long Stick	kg (lb)				217 (480)	227 (501)	227 (501)	3.3 (10.9)
1 m (3.3 ft)	Standard Stick	kg (lb)	456 (985)	584 (1,249)	522 (1,125)	222 (489)	289 (637)	254 (562)	3.3 (10.7)
	Long Stick	kg (lb)	459 (991)	495 (1,059)	495 (1,059)	203 (448)	234 (514)	234 (514)	3.4 (11.3)
0 m (0 ft)	Standard Stick	kg (lb)	424 (914)	704 (1,518)	489 (1,054)	222 (489)	343 (756)	255 (563)	3.2 (10.5)
	Long Stick	kg (lb)	419 (903)	703 (1,514)	484 (1,043)	202 (445)	277 (611)	233 (515)	3.4 (11.1)

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

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Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			OPERATOR ENVIRONMENT (continued)		
Cat C1.1 Engine (U.S. EPA Tier 4 Final/EU Stage V)	✓		Next Generation Color LCD Monitor (IP66)	✓	
Automatic Engine Idle	✓		– Fuel Level and Coolant Temperature Gauges	✓	
Automatic Engine Shutdown	✓		– Maintenance and Machine Monitoring	✓	
Automatic Two Speed Travel	✓		– Performance and Machine Adjustments	✓	
Fuel Water Separator	✓		– Numeric Security Code	✓	
Power on Demand (not available in all regions)	✓		– Multiple Languages	✓	
Variable Displacement Piston Pump	✓		– Hour Meter with Wake Up Switch	✓	
Load Sensing/Flow Sharing Hydraulics	✓		UNDERCARRIAGE		
HYDRAULICS			Expandable Undercarriage	✓	
Smart Tech Electronic Pump	✓		Rubber Belt (230 mm/9 in wide)	✓	
Accumulator	✓		Steel Track (230 mm/9 in wide)		✓
Automatic Swing Brake	✓		Dozer Blade	✓	
Auxiliary Hydraulic Lines	✓		Dozer Blade Float	✓	
One and Two Way Auxiliary Flow	✓		Hydraulic Track Adjusters	✓	
Continuous Auxiliary Flow	✓		Tie Downs on Track Frame	✓	
Auxiliary Line Quick Disconnects	✓		BOOM, STICK AND LINKAGES		
OPERATOR ENVIRONMENT			One Piece Boom (1780 mm/70 in)	✓	
Tilt-up Canopy	✓		Standard Stick (960 mm/37.8 in)	✓	
Top Guard ISO 10262:1998 Level I	✓		Long Stick (1160 mm/45.7 in)		✓
ROPS – ISO 12117-2:2008	✓		Front Shovel Capable	✓	
TOPS – ISO 12117:1997	✓		Pin-On	✓	
Machine 2-Point Lifting	✓		Dual Lock Manual Coupler		✓
Stick Steer Mode	✓		Thumb Ready (not available in all regions)	✓	
Travel Cruise Control	✓		Certified Lifting Eye (optional in some regions)	✓	
Control Pattern Changer (optional in some regions)	✓	✓	Attachments including Couplers, Thumbs, Buckets, Augers and Hammers		✓
Adjustable Wrist Rests	✓		2nd Auxiliary Hydraulic Lines		✓
Washable Floor Mat	✓		Boom Lowering Check Valve		✓
Travel Pedals and Hand Levers	✓		Stick Lowering Check Valve		✓
No Travel Pedals and Hand Levers		✓	Hydraulic Quick Coupler Lines (not available in all regions)		✓
Machine Security	✓		ELECTRICAL		
Standard Key with Pass Code	✓		12 Volt Battery	✓	
Push to Start with Key Fob/Pass Code		✓	Software (machine and monitor)	✓	
Vinyl Non-Suspension Seat	✓		Maintenance Free Battery	✓	
Vinyl Suspension Seat		✓	Battery Disconnect		✓
Hydraulic Lockout – All Controls	✓		Signaling/Warning Horn	✓	
Retractable High Visibility Seat Belt (75 mm/3 in)	✓		12 Volt Power Socket	✓	
Coat Hook	✓		Product Link PL243 (regulations apply)		✓
Cup Holder	✓		Product Link PLE643 (regulations apply)		✓
Storage Pocket	✓		Travel Alarm (standard in some regions)		✓
Skylight	✓		GUARDING		
Mounting Bosses for Front	✓		Guard, Canopy		✓
Signaling/Warning Horn	✓		Guard, Mesh		✓
Boom Light, Halogen	✓		OTHER		
LED Front Lights		✓	Bio Oil Capable		✓
LED Front and Rear Lights		✓	Eco Drain		✓
LED Boom Light		✓	Water Jacket Heater		✓
Utility Space for Mobile Phone	✓				
Mirrors Left and Right		✓			

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AEHQ8144-05 (08-2020)
Replaces AEHQ8144-04
Build Number: 05A
(Global excluding
China and Japan)

