



Cat[®]

301.7 CR

MINI EXCAVATOR

FEATURES:

The Cat[®] 301.7 CR 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 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 compact radius design and 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 with optional seat belt remind system 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.



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Specifications

Engine

Engine Model	C1.1
Net Power @ 2,400 rpm	
ISO 9249/EEC 80/1269	14.3 kW
Gross Power	
ISO 14396	16.1 kW
Bore	77.0 mm
Stroke	81.0 mm
Displacement	1.1 L

- Net power is tested per ISO 9249:2007 and 80/1269/EEC.
- 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.
- Engine power is tested per ISO 14396:2002.
- Advertised power is tested per the specified standard in effect at the time of manufacture.

Weights

Minimum Operating Weight with Canopy*	1786 kg
Maximum Operating Weight with Canopy**	1843 kg

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

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

Weight Increase from Minimum Configuration

Long Stick	7 kg
Steel Tracks	50 kg
Expandable Undercarriage	Standard
Heavy Counterweight	67 kg

Travel System

Travel Speed – High	4.4 km/h
Travel Speed – Low	2.9 km/h
Maximum Traction Force – High Speed	11.9 kN
Maximum Traction Force – Low Speed	18.4 kN
Ground Pressure – Minimum Weight	27.9 kPa
Ground Pressure – Maximum Weight	28.7 kPa
Gradeability (maximum)	30 degrees

Service Refill Capacities

Cooling System	3.9 L
Engine Oil	4.4 L
Fuel Tank	22.0 L
Hydraulic Tank	18.0 L
Hydraulic System	26.0 L

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump	
Pump Flow @ 2,400 rpm	66 L/min
Operating Pressure – Equipment	245 bar
Operating Pressure – Travel	245 bar
Operating Pressure – Swing	147 bar
Auxiliary Circuit – Primary	
Flow	33 L/min
Pressure	245 bar
Auxiliary Circuit – Secondary	
Flow	14 L/min
Pressure	245 bar
Digging Force – Stick (standard)	9.5 kN
Digging Force – Stick (long)	8.3 kN
Digging Force – Bucket	16.2 kN

Swing System

Machine Swing Speed	9.8 rpm
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Blade

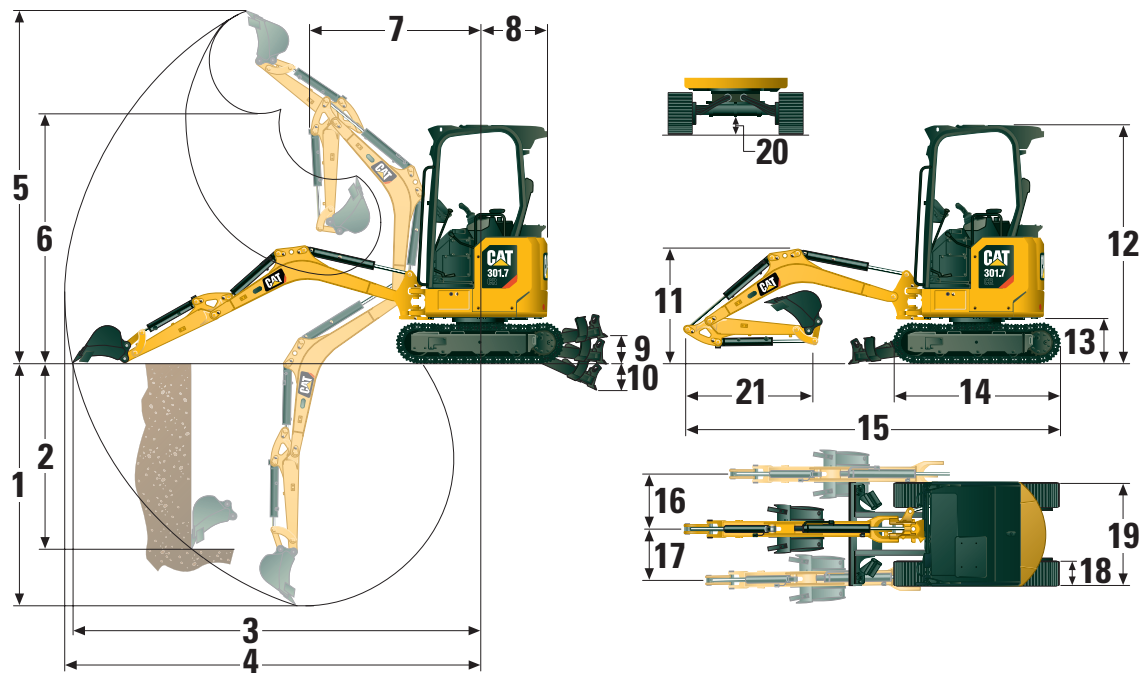
Width*	990 mm
Height	225 mm

*Expanded – 1300 mm

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)

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Dimensions

	Standard Stick	Long Stick
1 Dig Depth	2350 mm	2540 mm
2 Vertical Wall	1800 mm	1890 mm
3 Maximum Reach at Ground Level	3900 mm	4060 mm
4 Maximum Reach	3970 mm	4130 mm
5 Maximum Dig Height	3430 mm	3490 mm
6 Maximum Dump Clearance	2450 mm	2510 mm
7 Boom in Reach	1630 mm	1620 mm
8 Tail Swing	650 mm	650 mm
9 Maximum Blade Height	270 mm	270 mm
10 Maximum Blade Depth	265 mm	265 mm
11 Boom Height in Shipping Position	1090 mm	1040 mm
12 Overall Shipping Height	2300 mm	2300 mm
13 Swing Bearing Height	442 mm	442 mm
14 Overall Undercarriage Length	1590 mm	1590 mm
15 Overall Shipping Length	3620 mm	3590 mm
16 Boom Swing Right	50 degrees	50 degrees
17 Boom Swing Left	65 degrees	65 degrees
18 Track Belt/Shoe Width	230 mm	230 mm
19 Track Width		
Retracted	990 mm	990 mm
Expanded	1300 mm	1300 mm
20 Minimum Ground Clearance Below Undercarriage	150 mm	150 mm
21 Stick Length	960 mm	1160 mm

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Lift Capacities – Minimum Configuration*

Lift Point Height			1.5 m			2 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
2 m	Standard Stick	kg							336	232	246	3.1
	Long Stick	kg							268	210	223	3.3
1.5 m	Standard Stick	kg				442	442	442	329	204	217	3.3
	Long Stick	kg							265	186	199	3.5
1 m	Standard Stick	kg				775	435	458	336	190	203	3.4
	Long Stick	kg				636	441	464	273	174	186	3.6
0 m	Standard Stick	kg				938	398	422	398	189	202	3.4
	Long Stick	kg	613	613	613	946	394	417	323	172	185	3.6

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

Lift Capacities – Maximum Configuration**

Lift Point Height			1.5 m			2 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
2 m	Standard Stick	kg							336	240	255	3.1
	Long Stick	kg							268	217	231	3.3
1.5 m	Standard Stick	kg				442	442	442	329	212	225	3.3
	Long Stick	kg							265	193	206	3.5
1 m	Standard Stick	kg				775	449	474	336	197	211	3.4
	Long Stick	kg				636	455	480	273	181	194	3.6
0 m	Standard Stick	kg				938	413	438	398	197	210	3.4
	Long Stick	kg	613	613	613	946	408	433	323	179	192	3.6

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

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 (China Nonroad Stage IV)	✓		Machine Security	✓	
Automatic Engine Idle	✓		Standard Key with Pass Code	✓	
Automatic Engine Shutdown	✓		Vinyl Suspension Seat	✓	
Automatic Two Speed Travel	✓		Hydraulic Lockout – All Controls	✓	
Fuel Water Separator	✓		Retractable High Visibility Seat Belt (75 mm/3 in)	✓	
Power on Demand (not available in all regions)	✓		Coat Hook	✓	
Variable Displacement Piston Pump	✓		Cup Holder	✓	
Load Sensing/Flow Sharing Hydraulics	✓		Storage Pocket	✓	
HYDRAULICS			Skylight	✓	
Smart Tech Electronic Pump	✓		Mounting Bosses for Front	✓	
Accumulator	✓		Signaling/Warning Horn	✓	
Automatic Swing Brake	✓		Boom Light, Halogen	✓	
Auxiliary Hydraulic Lines	✓		LED Front Lights		✓
One and Two Way Auxiliary Flow	✓		LED Front and Rear Lights		✓
Continuous Auxiliary Flow	✓		LED Boom Light		✓
OPERATOR ENVIRONMENT			Utility Space for Mobile Phone	✓	
Tilt-up Canopy	✓		Mirrors Left and Right		✓
Top Guard ISO 10262:1998 Level I	✓		Next Generation Color LCD Monitor (IP66)	✓	
ROPS – ISO 12117-2:2008	✓		– Fuel Level and Coolant Temperature Gauges	✓	
TOPS – ISO 12117:1997	✓		– Maintenance and Machine Monitoring	✓	
Machine 2-Point Lifting	✓		– Performance and Machine Adjustments	✓	
Stick Steer Mode	✓		– Numeric Security Code	✓	
Travel Cruise Control	✓		– Multiple Languages	✓	
Control Pattern Changer (optional in some regions)		✓	– Hour Meter with Wake Up Switch	✓	
Adjustable Wrist Rests	✓				
Washable Floor Mat	✓				

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Standard and Optional Equipment *(continued)*

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

	Standard	Optional		Standard	Optional
UNDERCARRIAGE			ELECTRICAL		
Expandable Undercarriage	✓		12 Volt Battery	✓	
Rubber Belt (230 mm/9 in wide)	✓		Software (machine and monitor)	✓	
Steel Track (230 mm/9 in wide)		✓	Maintenance Free Battery	✓	
Dozer Blade	✓		Battery Disconnect	✓	
Dozer Blade Float	✓		Signaling/Warning Horn	✓	
Hydraulic Track Adjusters	✓		12 Volt Power Socket	✓	
Tie Downs on Track Frame	✓		Product Link™ PL243 (regulations apply)	✓	
BOOM, STICK AND LINKAGES			Travel Alarm (standard in some regions)		✓
One Piece Boom (1780 mm/70 in)	✓		GUARDING		
Standard Stick (960 mm/37.8 in)	✓		Guard, Canopy		✓
Long Stick (1160 mm/45.7 in)		✓	Guard, Mesh		✓
Front Shovel Capable	✓		OTHER		
Pin-On	✓		Bio Oil Capable		✓
Dual Lock Manual Coupler		✓	Eco Drain		✓
Certified Lifting Eye (optional in some regions)	✓		Water Jacket Heater		✓
Attachments including Couplers, Thumbs, Buckets, Augers and Hammers		✓	Heavy Counterweight		✓
Hydraulic Quick Coupler Lines (not available in all regions)		✓			

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® 301.7 CR meets China Nonroad Stage IV 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 (hydrogenated 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.

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

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

- *The labeled sound power level for the CE marked configurations when measured according to the test procedure and conditions specified in 2000/14/EC.

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
 - Power On Demand provides full time efficiency and power when you need it and is transparent to the operator
 - Auto idle and auto engine shutdown
 - Extended maintenance intervals reduce fluid and filter consumption
 - Remote Flash and Remote Troubleshoot (if equipped)

Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	65.26
Iron	13.07
Rubber	8.59
Other	3.04
Nonferrous Metal	2.93
Plastic	2.67
Fluid	2.35
Uncategorized	0.85
Mixed-Metal and Nonmetal	0.68
Mixed-Metal	0.54
Mixed-Nonmetallic	0.02
Total	100

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714 (Earth-moving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following values in the table may vary.

Recyclability – 95%

The data provided above was based on the product configuration as provided by the individual product group.

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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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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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