



Cat[®] 302 CR

MINI EXCAVATOR

FEATURES:

The Cat[®] 302 CR Mini Excavator delivers power and performance in a compact size to help you work in a wide range of applications.

ALL DAY COMFORT

- A sealed and pressurized cab equipped with air conditioning, 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 reminder 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 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.



302 CR Mini Excavator

Specifications

Engine

Engine Model	C1.1
Rated 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

- Meets China Nonroad Stage IV emission standards.
- 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.
- Advertised power is tested per the specified standard in effect at the time of manufacture.

Weights

Minimum Operating Weight with Cab*	2042 kg
Maximum Operating Weight with Cab**	2205 kg

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

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

Weight Increase from Minimum Configuration

Long Stick	7 kg
Steel Tracks	60 kg
Expandable Undercarriage	96 kg

Travel System

Travel Speed – High	4.4 km/h
Travel Speed – Low	2.9 km/h
Maximum Traction Force – High Speed	13.2 kN
Maximum Traction Force – Low Speed	20.0 kN
Ground Pressure – Minimum Weight	23.7 kPa
Ground Pressure – Maximum Weight	26.8 kPa
Gradeability (maximum)	30 degrees

Service Refill Capacities

Cooling System	3.9 L
Engine Oil	4.4 L
Fuel Tank	26.0 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)	11.3 kN
Digging Force – Stick (long)	9.8 kN
Digging Force – Bucket	19.6 kN

Swing System

Machine Swing Speed	9.8 rpm
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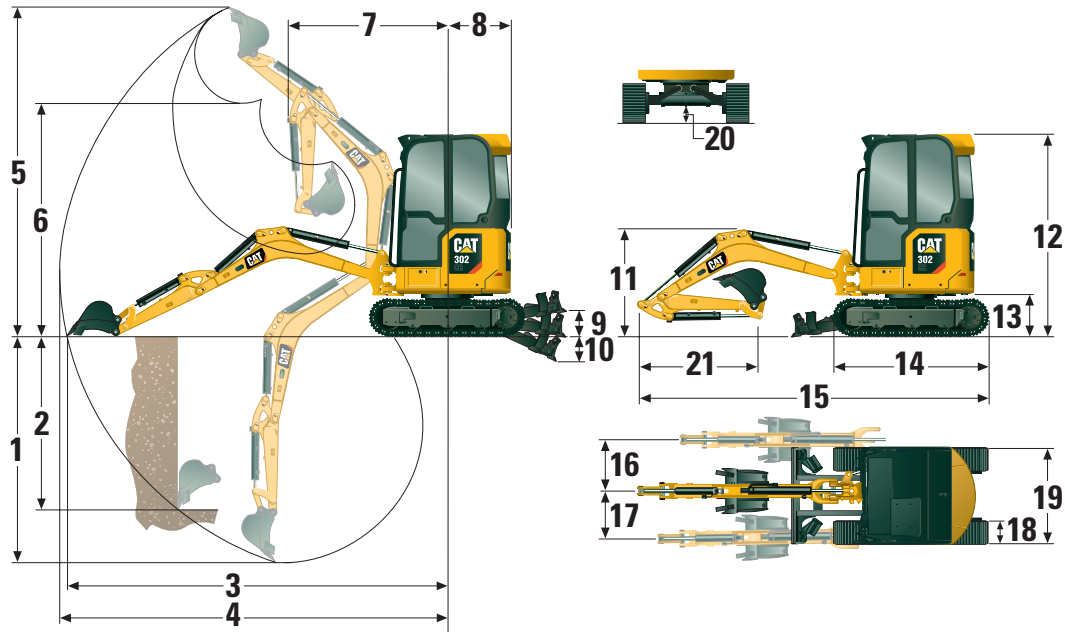
Blade

Width*	1090 mm
Height	225 mm

*Expanded – 1300 mm

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)



Dimensions

	Standard Stick	Long Stick
1 Dig Depth	2370 mm	2570 mm
2 Vertical Wall	1850 mm	1940 mm
3 Maximum Reach at Ground Level	4040 mm	4210 mm
4 Maximum Reach	4110 mm	4270 mm
5 Maximum Dig Height	3550 mm	3620 mm
6 Maximum Dump Clearance	2560 mm	2640 mm
7 Boom in Reach	1660 mm	1660 mm
8 Tail Swing	750 mm	750 mm
9 Maximum Blade Height	285 mm	285 mm
10 Maximum Blade Depth	295 mm	295 mm
11 Boom Height in Shipping Position	1070 mm	1020 mm
12 Overall Shipping Height	2300 mm	2300 mm
13 Swing Bearing Height	442 mm	442 mm
14 Overall Undercarriage Length	1850 mm	1850 mm
15 Overall Shipping Length	3900 mm	3880 mm
16 Boom Swing Right	50 degrees	50 degrees
17 Boom Swing Left	65 degrees	65 degrees
18 Track Belt/Shoe Width	250 mm	250 mm
19 Track Width		
Retracted	1090 mm	1090 mm
Expanded	1400 mm	1400 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 Front			m
			Blade Down	Blade Up		Blade Down	Blade Up	Over Side	Blade Down	Blade Up	Over Side	
2 m	Standard Stick	kg							368	376	313	3.3
	Long Stick	kg							301	301	286	3.5
1.5 m	Standard Stick	kg				549	549	549	311	370	281	3.5
	Long Stick	kg							300	300	260	3.7
1 m	Standard Stick	kg				756	906	622	313	380	266	3.6
	Long Stick	kg				764	771	630	291	309	246	3.8
0 m	Standard Stick	kg				719	959	588	316	388	268	3.5
	Long Stick	kg	608	608	608	713	988	582	292	366	247	3.7

*Minimum Weight includes rubber tracks, cab, operator, full fuel tank, expanded undercarriage, no counterweight 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			m
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up	Over Side	
2 m	Standard Stick	kg							377	377	344	3.3
	Long Stick	kg							302	302	302	3.5
1.5 m	Standard Stick	kg				526	526	526	361	370	309	3.5
	Long Stick	kg							300	300	286	3.7
1 m	Standard Stick	kg				820	890	680	341	379	292	3.6
	Long Stick	kg				749	749	687	308	308	271	3.8
0 m	Standard Stick	kg				781	964	644	343	389	293	3.5
	Long Stick	kg	587	587	587	775	992	638	318	364	271	3.7

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

302 CR Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
ENGINE		
Cat® C1.1 Engine (China Nonroad Stage IV)	✓	
Automatic Engine Idle	✓	
Automatic Engine Shutdown	✓	
Automatic Two Speed Travel	✓	
Fuel Water Separator	✓	
Power on Demand	✓	
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	✓	
OPERATOR ENVIRONMENT		
Cab	✓	
ROPS – ISO 12117-2:2008	✓	
TOPS – ISO 12117:1997	✓	
Top Guard – ISO 10262:1998 (Level I)	✓	
Next Generation Standard LCD Monitor	✓	
Machine Security – Standard Key with Pass Code or Push to Start with Fob	✓	
Adjustable Wrist Rests	✓	
Vinyl Seat (with or without suspension)	✓	
Retractable High Visibility Seat Belt (75 mm)	✓	
Seat Belt Reminder System		✓
Coat Hook	✓	
Cup Holder	✓	
Storage Pocket	✓	
Skylight	✓	
Washable Floor Mat	✓	
Next Generation Stick Steer	✓	
Hydraulic Lockout – All Controls	✓	
Machine 2-Point Lifting	✓	
Tilt-up Cab or Canopy	✓	
Mirrors Left and Right		✓

	Standard	Optional
UNDERCARRIAGE		
Fixed or Expandable Undercarriage	✓	
Rubber Belt or Steel Track (250 mm wide)	✓	
Dozer Blade with Float	✓	
Tie Downs on Track Frame	✓	
BOOM, STICK AND LINKAGES		
One Piece Boom (1850 mm)	✓	
Standard Stick (960 mm) or Long Stick (1160 mm)	✓	
Front Shovel Capable	✓	
ELECTRICAL		
12 Volt Battery	✓	
Software (machine and monitor)	✓	
Maintenance Free Battery	✓	
Warning Horn	✓	
12 Volt Power Socket	✓	
Boom Light, Halogen	✓	
Pattern Changer	✓	
Battery Disconnect	✓	
Product Link™	✓	
LED Front Lights		✓
LED Front and Rear Lights		✓
LED Boom Light		✓
OTHER		
Bluetooth® Capable		✓
Buckets		✓
Travel Alarm		✓
Water Jacket Heater		✓
Eco Drain		✓

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® C1.1 Turbo engine 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 (hydrotreated 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.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

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 CO₂ equivalent of 1.430 metric tonnes.

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

Operator Sound Pressure 73 dB(A) (ISO 6396:2008)

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

- The declared dynamic operator sound pressure levels per ISO 6396:2008. The measurements were conducted with the cab doors and windows closed.
- 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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