



Cat[®] 303 CR

MINI EXCAVATOR

FEATURES:

The Cat[®] 303 CR 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 which can be equipped with air conditioning, adjustable wrist rests, and a suspension seat 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. An advanced touchscreen monitor can also be equipped.

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 to move the machine and to operate the blade. 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 lets you access and work in the tightest areas. Dozer float allows 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 cab or 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 Turbo
Net Power @ 2,400 rpm	
ISO 9249/EEC 80/1269	17.6 kW
Gross Power @ 2,400 rpm	
ISO 14396	18.4 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 Canopy*	3105 kg
Maximum Operating Weight with Canopy**	3480 kg
Minimum Operating Weight with Cab*	3220 kg
Maximum Operating Weight with Cab**	3600 kg

*Minimum Weight is based on rubber tracks, operator, full fuel tank, standard stick, blade, bucket and no extra counterweight.

**Maximum Weight is based on steel tracks, operator, full fuel tank, standard stick, blade, bucket and extra counterweight.

Weight Increase from Minimum Configuration

Cab	115 kg
Counterweight (extra)	250 kg
Steel Tracks	125 kg

Travel System

Travel Speed – High	4.5 km/h
Travel Speed – Low	2.6 km/h
Maximum Traction Force – High Speed	14.7 kN
Maximum Traction Force – Low Speed	31.4 kN
Ground Pressure – Minimum Weight	28.3 kPa
Ground Pressure – Maximum Weight	32.8 kPa
Gradeability (maximum)	30 degrees

Service Refill Capacities

Cooling System	4.0 L
Engine Oil	4.0 L
Fuel Tank	45.0 L
Hydraulic Tank	18.0 L
Hydraulic System	35.0 L

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump	
Pump Flow @ 2,400 rpm	100 L/min
Operating Pressure – Equipment	245 bar
Operating Pressure – Travel	245 bar
Operating Pressure – Swing	176 bar
Auxiliary Circuit – Primary	
Flow*	65 L/min
Pressure*	245 bar
Digging Force – Stick (standard)	16.6 kN
Digging Force – Bucket	28.4 kN

*Flow and pressure are not combinable. Under load, as flow rises pressure goes down.

Swing System

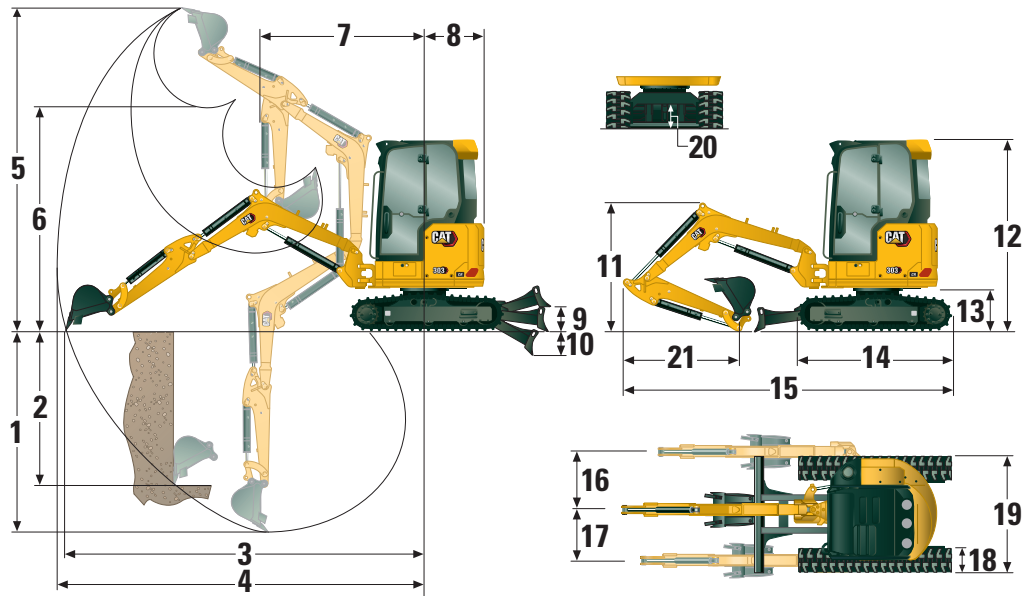
Machine Swing Speed	9.0 rpm
Boom Swing – Left	75 Degrees
Boom Swing – Right	50 Degrees

Blade

Width	1550 mm
Height	350 mm

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)



Dimensions

	Standard Stick
1 Dig Depth	2650 mm
2 Vertical Wall	1820 mm
3 Maximum Reach at Ground Level	4830 mm
4 Maximum Reach	4980 mm
5 Maximum Dig Height	4510 mm
6 Maximum Dump Clearance	3170 mm
7 Boom in Reach	1750 mm
8 Tail Swing	
without Counterweight	775 mm
with Counterweight (extra)	890 mm
9 Maximum Blade Height	385 mm
10 Maximum Blade Depth	535 mm
11 Boom Height in Shipping Position	1600 mm
12 Overall Shipping Height	2480 mm
13 Swing Bearing Height	570 mm
14 Overall Undercarriage Length	2070 mm
15 Overall Shipping Length†	4510 mm
16 Boom Swing Right	870 mm
17 Boom Swing Left	640 mm
18 Track Belt/Shoe Width	300 mm
19 Track Width	1550 mm
20 Ground Clearance	310 mm
21 Stick Length	1260 mm

†Overall Shipping Length depends on blade position during shipment.

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Cab

Lift Capacities – Minimum Configuration			Lift Point Radius – 2 m			Lift Point Radius – 3 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
Lift Point Height			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
3 m	Standard Stick	kg				*792	630	548	*848	441	385	3.67
2 m	Standard Stick	kg				*998	601	520	*864	349	303	4.16
1 m	Standard Stick	kg				*1352	553	475	*903	321	278	4.29
0 m	Standard Stick	kg	*1280	1003	823	*1522	525	448	*955	335	289	4.11

Minimum Weight includes cab, rubber tracks, no extra counterweight, operator, full fuel tank and blade.

Lift Capacities – Maximum Configuration			Lift Point Radius – 2 m			Lift Point Radius – 3 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
Lift Point Height			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
3 m)	Standard Stick	kg				*792	*792	647	*848	573	464	3.67
2 m	Standard Stick	kg				*998	773	620	*864	461	372	4.16
1 m	Standard Stick	kg				*1352	725	576	*903	429	345	4.29
0 m	Standard Stick	kg	*1280	*1280	990	*1522	697	549	*955	449	360	4.11

Maximum Weight includes cab, steel tracks, extra counterweight, operator, full fuel tank and blade.

Canopy

Lift Capacities – Minimum Configuration			Lift Point Radius – 2 m			Lift Point Radius – 3 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
Lift Point Height			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
3 m	Standard Stick	kg				*792	603	526	*848	420	368	3.67
2 m	Standard Stick	kg				*998	574	498	*864	331	289	4.16
1 m	Standard Stick	kg				*1352	526	453	*903	304	264	4.29
0 m	Standard Stick	kg	*1280	952	784	*1522	498	426	*955	317	275	4.11

Minimum Weight includes canopy, rubber tracks, no extra counterweight, operator, full fuel tank and blade.

Lift Capacities – Maximum Configuration			Lift Point Radius – 2 m			Lift Point Radius – 3 m			Lift Point Radius (Maximum)			
			Over Front		Over Side	Over Front		Over Side	Over Front		Over Side	m
Lift Point Height			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
3 m	Standard Stick	kg				*792	774	627	*848	552	449	3.67
2 m	Standard Stick	kg				*998	746	600	*864	443	359	4.16
1 m	Standard Stick	kg				*1352	698	555	*903	412	332	4.29
0 m	Standard Stick	kg	*1280	1269	954	*1522	670	529	*955	431	346	4.11

Maximum Weight includes canopy, steel tracks, extra counterweight, operator, full fuel tank and blade.

*The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

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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 Turbo Engine (China Nonroad IV)	✓		LED Front Lights		✓
Automatic Engine Idle	✓		LED Boom Light	✓	
Automatic Engine Shutdown	✓		Utility Space for Mobile Phone	✓	
Automatic Two Speed Travel	✓		Mirrors Left and Right	✓	
Fuel Water Separator	✓		Radio – Bluetooth®, Auxiliary, Microphone, USB (charging only) (Cab only)		✓
Power on Demand (not available in all regions)	✓		Next Generation Color LCD Monitor (IP66)	✓	
Variable Displacement Piston Pump	✓		– Fuel Level and Coolant Temperature Gauges	✓	
Load Sensing/Flow Sharing Hydraulics	✓		– Maintenance and Machine Monitoring	✓	
HYDRAULICS			– Performance and Machine Adjustments	✓	
Smart Tech Electronic Pump	✓		– Numeric Security Code	✓	
Accumulator	✓		– Multiple Languages	✓	
Automatic Swing Brake	✓		– Hour Meter with Wake Up Switch	✓	
One and Two Way Auxiliary Flow	✓		– Jog Dial (cab only)	✓	
Continuous Auxiliary Flow	✓		Next Generation Advanced Monitor		✓
Auxiliary Hydraulic Lines		✓	– Touch Screen		✓
Auxiliary Line Quick Disconnect		✓	– Site Reference System		✓
OPERATOR ENVIRONMENT			– High Definition Camera Capable (IP68 and IP69K)		✓
Tilt-up Canopy or Tilt-Up Cab	✓		– Numeric Security Code		✓
Cab with Air Conditioning	✓		UNDERCARRIAGE		
Cab with Heater	✓		Rubber Belt (300 mm wide)		✓
Top Guard ISO 10262:1998 Level I	✓		Steel Track (300 mm wide)	✓	
ROPS – ISO 12117-2:2008	✓		Dozer Blade	✓	
TOPS – ISO 12117:1997	✓		Dozer Blade Float	✓	
Stick Steer Mode	✓		Tie Downs on Track Frame	✓	
Travel Cruise Control	✓		BOOM, STICK AND LINKAGES		
Control Pattern Changer (optional in some regions)	✓		One Piece Boom (2200 mm)	✓	
Adjustable Wrist Rests	✓		Standard Stick (1260 mm)	✓	
Washable Floor Mat	✓		ELECTRICAL		
Travel Pedals and Hand Levers	✓		12 Volt Battery	✓	
Machine Security	✓		Software (machine and monitor)	✓	
Standard Key with Pass Code	✓		Maintenance Free Battery	✓	
Fabric Suspension Seat (Cab only)	✓		Battery Disconnect	✓	
Vinyl Suspension Seat (Canopy only)	✓		Signaling/Warning Horn	✓	
Hydraulic Lockout – All Controls	✓		12 Volt Power Socket	✓	
Retractable High Visibility Seat Belt (75 mm)	✓		Product Link™ PL243 (regulations apply)		✓
Coat Hook	✓		OTHER		
Cup Holder	✓		Extra Counterweight (250 kg/551 lb)		✓
Storage Pocket	✓				
Skylight	✓				
Mounting Bosses for Front	✓				
Signaling/Warning Horn	✓				
Interior Light (Cab only)	✓				

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 Diesel 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 (2.20 lb) of refrigerant which has a CO₂ equivalent of 1.430 metric tonnes (1.58 tons).

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 80 dB(A) (GB 25615-2010)

Average Exterior Sound Pressure 95 dB(A) (GB 25614-2010)

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	
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%
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- 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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(China)

