



Cat[®] 307

MINI HYDRAULIC EXCAVATOR

FEATURES:

The Cat[®] 307 Mini Excavator with standard tail and fixed boom design delivers high performance with low fuel consumption. The durable and reliable structure helps you work in applications with high productivity but low operating cost.

ALL DAY COMFORT

The sealed cab is equipped with an improved air conditioning system and radio. An upgraded air suspension seat keeps you working comfortably all day long. The touch screen monitor provides easy control and visibility to machine performance data.

EASY TO OPERATE

Controls are easy to use with an ergonomic joystick. 100% pilot controls and a load sensing hydraulic system deliver smooth, powerful performance.

BIG PERFORMANCE IN A MINI DESIGN

- Increased lifting, swinging, travel and multi-functioning performance help you get the job done more efficiently.
- Heavy duty structural design ensures machine durability and reliability.
- Counterweight extends to both sides of the machine and provides improved stability.

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 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. All machines are equipped with GPS for easy remote on-site management.

LOWER OPERATING COSTS

- Cat[®] C2.4T engine and hydraulics with a variable displacement electronic pump deliver fuel efficiency.
- Equipped with greased and lubricated tracks for significantly increased track life, the Cat mini excavator is 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 and much more.



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Specifications

Engine

Engine Model	Cat C2.4	
Net Power		
ISO 14396	36.0 kW	48.9 hp
Engine Power		
SAE J1995	36.5 kW	49.6 hp
Bore	87 mm	
Stroke	102.4 mm	
Displacement	2.4 L	

- Meets China Nonroad Stage IV emission standards.
- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is at the rated speed of 2,200 rpm and the engine is installed with the factory configured fan, air intake system, exhaust system and alternator with a minimum alternator load.

Weights

Maximum Operating Weight with Cab	7500 kg
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- Maximum weight is based on operator, full fuel tank, standard stick, bucket (854 mm/0.33 m³) and blade.

Bucket

With Standard Stick:	
Bucket Capacity	0.33 m ³
Bucket Width	854 mm

Swing System

Machine Swing Speed	10.5 rpm
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Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump

Pump Flow at 2,400 rpm	147 L/min
Operating Pressure – Equipment	28 500 kPa
Operating Pressure – Travel	28 500 kPa
Operating Pressure – Swing	24 000 kPa
Auxiliary Circuit – Primary	
Flow at Pump*	115 L/min
Pressure at Pump*	285 bar
Digging Force – Stick (standard)	36.3 kN
Digging Force – Bucket	53.2 kN

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

Blade

Width	2300 mm
Height	364 mm

Travel System

Travel Speed – High	4.9 km/h
Travel Speed – Low	3.4 km/h
Maximum Traction Force – Low Speed	51.0 kN
Ground Pressure – Maximum Weight	34.3 kPa
Gradeability (maximum)	30°

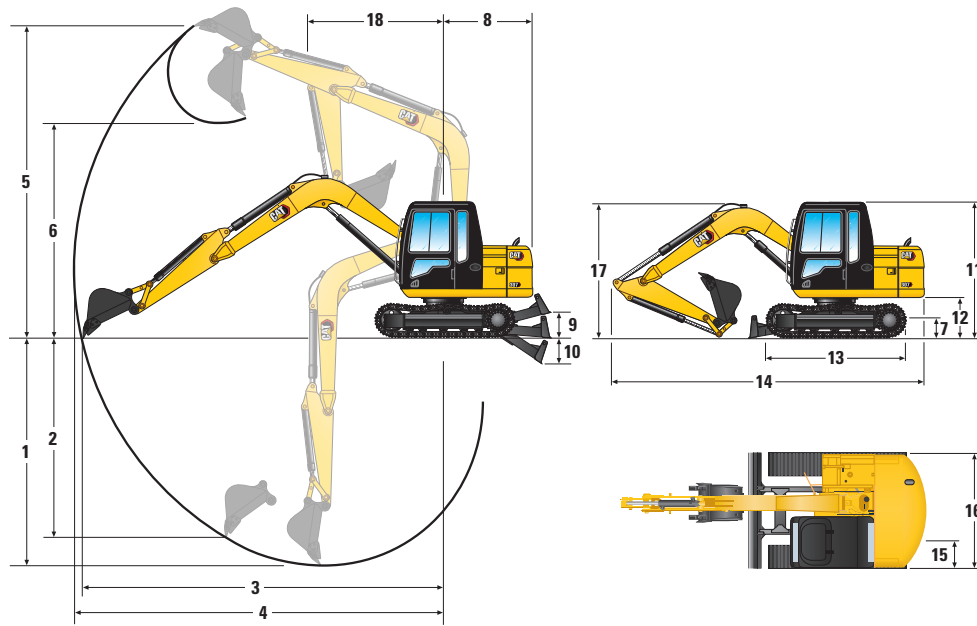
Service Refill Capacities

Cooling System	10.0 L
Engine Oil	10.2 L
Fuel Tank	165 L
Hydraulic Tank	51 L
Hydraulic System	102 L

Certification – Cab and Canopy

Roll Over Protective Structure (ROPS)	ISO 12117-2:2008
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Dimensions*

1 Dig Depth	4067 mm
2 Vertical Wall	3490 mm
3 Maximum Reach at Ground Level	6159 mm
4 Maximum Reach	6297 mm
5 Maximum Dig Height	7240 mm
6 Maximum Dump Clearance	5195 mm
7 Ground Clearance	372 mm
8 Tail Swing Radius	1750 mm
9 Maximum Blade Height	413 mm
10 Maximum Blade Depth	326 mm
11 Cab Height	2540 mm
12 Swing Bearing Height	774 mm
13 Overall Track Length	2760 mm
14 Overall Shipping Length	6076 mm
15 Track Shoe Width	450 mm
16 Overall Shipping Width	2200 mm
17 Boom Height in Shipping Position	2634 mm
18 Boom in Reach	1713 mm

*Working range and dimensions are for standard stick.

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Lift Capacities – Maximum Configuration

Lift Capacities – Maximum Configuration			Lift Point radius (3 m)			Lift Point radius (4.5 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		
Lift Point Height												
4.5 m	Standard Stick	kg	*1776	*1776	*1776				*1033	*1033	*1033	4.3
3 m	Standard Stick	kg	*2281	*2281	*2281	*1794	*1761	1320	*946	*946	*946	5.1
1.5 m	Standard Stick	kg	*3099	*3042	*2736	*2040	1400	1229	*1305	*1305	915	5.3
0 m	Standard Stick	kg	*3190	3190	2178	*2185	1316	1147	*1302	*1302	901	5.2

Maximum Weight: Cab, steel tracks, extra counterweight, operator, full fuel tank, standard stick, blade and bucket (0.33 m³).

The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 (GB/T 13331-2014) and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Lifting capacities are for machine with standard stick, 0.33 m³ bucket, blade and steel track.
*Hydraulic limit.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			ELECTRICAL		
Cat C2.4T Diesel Engine (China Nonroad Stage IV)	✓		Maintenance Free 12 Volt Battery	✓	
Variable Displacement Piston Pump	✓		Battery Disconnect	✓	
One Touch Low Idle	✓		Travel Alarm	✓	
Two Speed Travel with Manual Shift	✓		Warning Horn	✓	
Fuel Water Separator	✓		Product Link™ (monitors machine hours and location)	✓	
Muffler with Cover	✓		Light Group	✓	
Radial Seal Air Filter, Double Element	✓		12V Power Socket	✓	
One Key Security System	✓		UNDERCARRIAGE		
HYDRAULICS			Grease and Lubricated Track	✓	
Auxiliary Hydraulic Valve (1 way/2 way)	✓		450 mm Triple Grouser Track Shoes with Holes (For Rubber Pad)	✓	
Load Sensing/Flow Sharing Hydraulics	✓		Blade with Cutting Edge (2300 mm)	✓	
Accumulator	✓		Towing Eye on Baseframe	✓	
Auxiliary Hydraulic Lines	✓		BOOM, STICK AND LINKAGES		
OPERATOR ENVIRONMENT			One Piece Boom (3700 mm)	✓	
ROPS – ISO 12117-2:2008	✓		Standard Stick (1665 mm)	✓	
Cab with Air Conditioning	✓		OTHER		
Hydraulic Lockout – All Controls	✓		Tool Storage Box	✓	
Travel Pedals and Hand Levers	✓		Door Locks and Cap Locks	✓	
Monitor	✓		Rearview Mirror	✓	
Hour Meter	✓		Grease Can Holder	✓	
Mechanical Suspension Seat	✓				
Static Seat Belt (46 mm width)	✓				
Openable Front Windshield with Assist Device	✓				
Removable Lower Windshield	✓				
Windshield Wiper and Washer	✓				
Interior Lighting	✓				
Coat Hook	✓				
Radio	✓				
Two Stereo Speakers	✓				
Antenna	✓				
Cup Holder	✓				
Storage Pocket	✓				
Mounting for Front and Top Guard (Mounting Boss)	✓				
Washable Floor mat	✓				

307 Environmental Declaration

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® C2.4 Engine meets China Nonroad Stage IV emission standards.
- Cat engines are compatible with diesel fuel blended with the following lower-carbon intensity fuels** up to:
 - ✓ 100% 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.

**For use of blends higher than 20% biodiesel, consult your Cat dealer.*

***Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.9 kg (1.98 lb) of refrigerant which has a CO₂ equivalent of 1.287 metric tonnes (1.419 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

Dynamic Operating Sound Pressure <80 dB(A) (ISO 6396:2008)*

Exterior Sound Power Level <90 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.
- 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

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	Machine Model
		307
Weight Percentage (%)	Steel	65.52
	Iron	21.19
	Rubber	3.50
	Mixed Metal	2.20
	Other	1.89
	Nonferrous Metal	1.81
	Plastic	1.55
	Fluid	1.47
	Mixed-Metal and Nonmetal	0.85
	Mixed Nonmetallic	0.01
	Uncategorized	0.00
	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	96%
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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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