



Cat[®] 305.5

Mini Hydraulic Excavator

Technical Specifications

Engine

Engine Model	Cat C2.2
Net Power	
ISO14396	34.1kW
Bore	84mm
Stroke	100mm
Displacement	2.2L

- Comply with China National IV Non-road Emission Standards.
- Rated Power is tested in accordance with the specified standards in effect at the time of manufacture.
- Rated Net Power refers to the power measured at the flywheel when the engine is at the rated speed of 2400 rpm, with the factory-configured fan, intake system, exhaust system, and alternator installed, and the alternator load is at a minimum.

Weight

Operating Weight with Cab	5600 kg
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*Weight includes counterweight, steel tracks, 0.22 m³ bucket, and operator.

Bucket

Bucket Capacity	0.22m ³
Bucket Width	766mm

Blade

Width	1952mm
Height	339mm

Travel System

Travel Speed - High	3.8km/h
Travel Speed - Low	2.6km/h
Maximum Traction Force	41.5kN
Ground Pressure - At Maximum Weight	32.2kPa
Maximum Gradeability	30°

Hydraulic System

Load-sensing hydraulic system with variable displacement piston pump

Type	Cat
Pump Flow at 2400 rpm	147L/min
Working Pressure - Equipment	25200kPa
Working Pressure - Travel	25200kPa
Working Pressure - Swing	21000kPa
Main Auxiliary Circuit	
Pump Flow*	110L/min
Pump Pressure*	252bar
Digging Force - Arm	27.4kN
Digging Force - Bucket	35.3kN

*Flow and pressure are not combinable. When under load, pressure decreases as flow increases.

Swing System

Machine Swing Speed	10.5rpm
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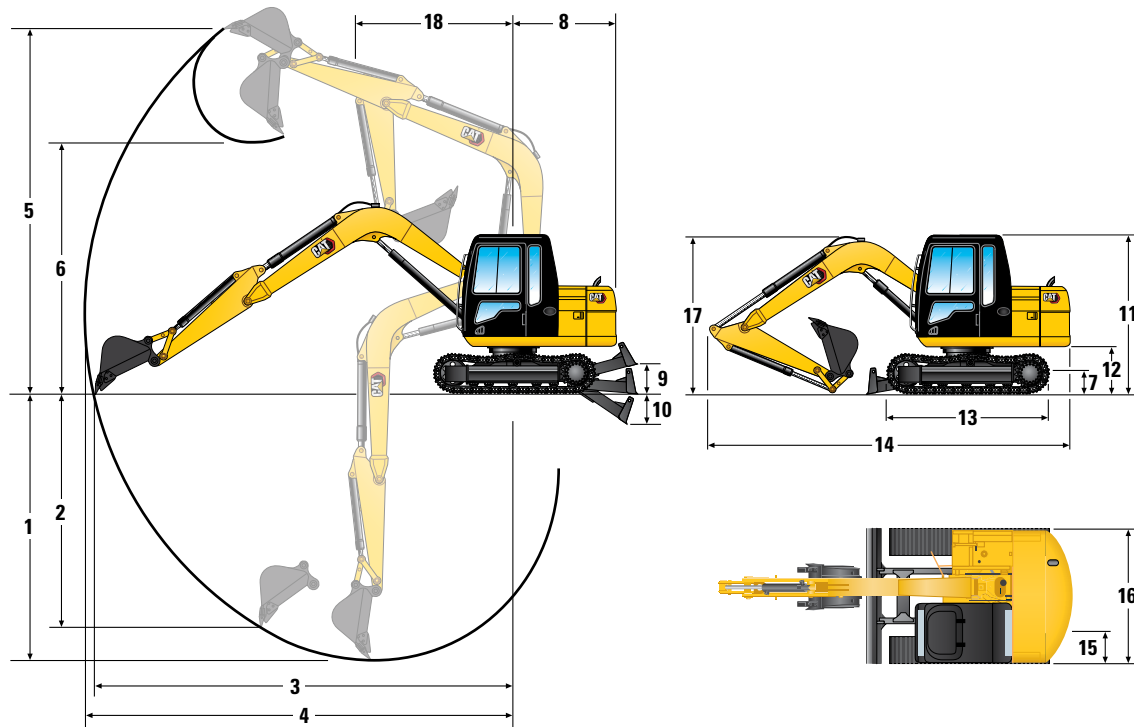
Service Fill Capacities

Cooling System	10.0L
Engine Oil	9.0L
Fuel Tank	165L
Hydraulic Tank	58L
Hydraulic System	94L

Certification--- Cab and Canopy

Roll-over Protective Structure (ROPS)	ISO12117-2:2008
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305.5 Mini Hydraulic Excavator



Dimensions

1 Digging Depth	3722 mm
2 Maximum Vertical Digging Depth	2206 mm
3 Maximum Reach on Ground	5829 mm
4 Maximum Reach	5953 mm
5 Maximum Digging Height	5461 mm
6 Maximum Dumping Clearance	3834 mm
7 Chassis Ground Clearance	312 mm
8 Rear Swing Radius	1580 mm
9 Maximum Blade Height	365 mm
10 Maximum Blade Depth	482 mm
11 Overall Transport Height	2549 mm
12 Swing Bearing Height	628 mm
13 Total Track Length	2440 mm
14 Overall Transport Length	5765 mm
15 Track Shoe Width	400 mm
16 Overall Transport Width	1950 mm
17 Boom Transport Height	1860 mm
18 Boom Retracted Position	2421 mm

*Operating range and dimensions apply to standard arm.

Lifting Capacity

Lifting Capacity ----- Maximum Configuration			Lifting Point Radius(3m)			Lifting Point Radius(4m)			Lifting Point Radius(Max)			
			Front		Side	Front		Side	Front		Side	m
			Blade Down	Blade Up		Blade Down	Blade Up		Blade Down	Blade Up		
3 m	Standard Arm	kg	*1065	*1065	*1065	*944	*944	*944	*905	*905	*905	4.80
2 m	Standard Arm	kg	*1482	*1482	*1482	*1106	*1106	*1106	*716	*716	*716	5.20
1 m	Standard Arm	kg	*1889	*1889	1360	*1281	*1281	872	*958	654	559	5.20
0 m	Standard Arm	kg	*2049	*1857	1295	*1380	980	835	*984	664	565	5.10

Maximum weight includes operator, full fuel tank, standard arm, blade, and bucket (766 mm/0.22 m³).

The above loads comply with the rated standard for lifting capacity of hydraulic excavators ISO 10567:2007, and they do not exceed 87 % of the hydraulic lifting capacity or 75% of the tipping capacity. The weight of the excavator bucket is not included in this table. The lifting capacity applies to the standard arm.

*Hydraulic limit.

Standard and Optional Equipment

	Standard	Optional		Standard	Optional
Engine			Electrical System		
Cat C2.2 Diesel Engine	✓		Maintenance-free 12V Battery	✓	
Variable Displacement Piston Pump	✓		Battery Disconnect Device	✓	
Manual Two-speed Travel Control	✓		Warning Horn	✓	
Fuel/Water Separator	✓		Product Link™ PLCN1	✓	
Muffler with Insulation	✓		Light Group	✓	
Dual-element Radial Seal Air Cleaner	✓		12V Power Outlet	✓	
One-touch Safety System	✓		Undercarriage System		
Hydraulic System			Grease Lubricated Tracks	✓	
Auxiliary Hydraulic Valve (Single/Double Acting)	✓		400 mm Triple Grouser Track Shoes (Provision for Rubber Pads)	✓	
Load Sensing/Flow Sharing Hydraulic System	✓		Blade with Scarifier (1950 mm)	✓	
Accumulator	✓		Chassis Tow Ring	✓	
Auxiliary Hydraulic Lines		✓	Boom, Stick and Linkage		
Operator Environment			Monoboom (3200 mm)	✓	
ROPS – ISO 12117-2:2008	✓		Standard Stick (1500 mm)	✓	
Cab with Air Conditioning	✓		Other		
Hydraulic Lockout – All Controls	✓		Tool Storage Box	✓	
Travel Pedals and Hand Levers	✓		Door Locks and High Frequency	✓	
Monitor	✓		Rearview Mirror	✓	
Hour Meter	✓		Grease Can Holder	✓	
Mechanical Suspension Seat	✓		B6 Hydraulic Hammer		✓
Static Seat Belt (46 mm Wide)	✓				
Opening Front Windshield with Assist	✓				
Removable Lower Windshield	✓				
Windshield Wipers and Washer	✓				
Interior Lighting	✓				
Coat Hook	✓				
Radio	✓				
Two Stereo Speakers	✓				
Antenna	✓				
Cup Holder	✓				
Storage Compartment	✓				
Front and Top Canopy Supports (Mounting Bosses)	✓				
Washable Floor Mat	✓				
Provision for Auxiliary Hydraulic Controls One Additional Pedal		✓			

305.5 Environmental Declaration

The following information applies to machines as finally manufactured, configured, and sold in the regions covered by this document. The content of this declaration is effective from the date of issuance. However, if there are changes to the content related to machine functions and technical specifications, we will not notify you separately. For other information, please refer to the machine's operation and maintenance manual.

Engine

- The Cat® C2.2 diesel engine meets China's National Stage IV non-road emission standards.
 - Cat engines are compatible with mixtures of diesel and the following low-carbon intensity fuels*:
 - ✓Up to 100% biodiesel FAME (Fatty Acid Methyl Ester)*
 - ✓Up to 100% renewable diesel, HVO (Hydrotreated Vegetable Oil), and GTL (Gas-to-Liquid) fuels
- For successful application, refer to the guidelines. For detailed information, please consult your Cat dealer or refer to "Caterpillar Machine Fluid Recommendations" (SEBU6250).

* If you need to use a fuel mixture with a biodiesel proportion higher than 20%, please consult your Cat dealer.

** The greenhouse gas emissions from the exhaust of low-carbon intensity fuels are basically the same as those from traditional fuels.

Air Conditioning System

- The air conditioning system of this machine uses the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). This system contains 0.9 kg (1.98 lb) of refrigerant, and its carbon dioxide equivalent is 1.287 metric tons (1.419 short tons).

Painting

- To the best of our current knowledge, the maximum allowable concentrations of the following heavy metals in the paint (in parts per million (PPM)) are:
 - Barium <0.01%
 - Cadmium <0.01%
 - Chromium <0.01%
 - Lead <0.01%

Noise Performance

Dynamic Operating Sound Pressure <80 dB (A)
(ISO 6396:2008) *
External Sound Power Level <98 dB (A)
(ISO 6395:2008) **

*The dynamic operator sound pressure level measured in accordance with ISO 6396:2008. Measured with the cab doors and windows closed.

**For configurations with the "CE" marking, the declared sound power level measured in accordance with the test procedures and conditions specified in 2000/14/EC.

Oil and Fluids

- Caterpillar factories use ethylene glycol coolant. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) are recyclable. Please contact your local Cat dealer for more information.
- There may be other fluids. Please refer to the operation and maintenance manual or application and installation guide for complete fluid recommendations and maintenance intervals.

Functions and Technologies

- The following functions and technologies may help save fuel and/or reduce carbon emissions. Functions may vary. For detailed information, please consult your Cat dealer.
 - Advanced hydraulic system achieves a balance between power and efficiency
 - Intelligent Power Boost mode provides full-time efficiency and power when needed without operator intervention
 - Automatic idle and engine auto-shutdown
 - Longer maintenance intervals, reducing fluid and filter consumption

Recycling

The materials contained in the machine are classified by approximate weight percentage as follows. Due to changes in product configuration, the following values in the table may vary.

Weight Percentage (%)	Machine Model	
	Material Type	305.5
	Steel	65.52
	Iron	21.19
	Rubber	3.50
	Mixed Metals	2.20
	Other	1.89
	Non-Ferrous Metals	1.81
	Plastic	1.55
	Fluids	1.47
	Mixed Metals and Non-Metals	0.85
	Mixed Non-Metals	0.01
	Unclassified	0.00
	Total	100

- Machines with higher recyclability will ensure more efficient use of precious natural resources and increase the scrap value of products. According to ISO 16714 (Earth-moving machinery – Recyclability and recoverability – Terminology and calculation methods), recyclability is defined as the percentage of mass (expressed as a percentage) of a new machine that can be recycled, reused, or both.

All parts in the bill of materials are first evaluated by component type based on the component list defined by ISO 16714 and Japanese CEMA (Construction Equipment Manufacturers Association) standards. The recyclability of remaining parts is further evaluated by material type.

Due to changes in product configuration, the following values in the table may vary.

Machine Model	
	305.5
Recyclability	96%

- The data provided above is based on the product configuration provided for each product group.