

303.5E CR

Mini Hydraulic Excavator



Engine

Engine Model	Cat® C1.8	
Net Power (ISO 9249)	23.6 kW	31.6 hp

Weights

Operating Weight with Canopy	3548 kg	7,822 lb
Operating Weight with Cab	3732 kg	8,227 lb

Operating Specifications

Maximum Dig Depth	2880 mm	9'6"
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**High
performance
in a compact
size to
increase your
productivity in
the tightest of
applications.**



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The Cat E Series Mini Hydraulic Excavators deliver high performance in a compact size to help you work in the tightest applications. The 303.5E CR features a large, integrated counterweight and excellent stability while maintaining a compact radius design. With the COMPASS control panel, the 303.5E CR has standard features like a password protected security system, Eco mode, adjustable auxiliary flow control, and continuous flow. These features make the machine more productive, versatile, and cost effective.

Operator Station

Superior comfort to keep you productive throughout the work day

Comfortable Working Environment

Spacious and comfortable operator station with excellent visibility and legroom keeps the operator comfortable and reduces fatigue. Standard features include:

- Reclining suspension seat with adjustable wrist rests.
- Pilot operated controls on all services including travel levers and dozer functions.
- Ample storage space under the seat that can be locked for added security.



Joystick Controls

The boom swing and auxiliary hydraulic functions are located at your fingertips providing smooth, easy operation. They also eliminate foot pedals and free up the floor for more room for the operator's feet. 100% pilot controls provide consistent flow and pressure throughout the life of the machine. This also allows all controls to be locked out while starting the machine.



Performance

Powerful digging with precise control

Stability

The 303.5E CR features excellent stability while maintaining the compact radius design. This increased stability leads to more productivity and versatility through the use of heavier work tools.

Fast, Powerful Digging with Load Sensing Hydraulics

High digging forces and fast cycle times deliver the productivity that your job demands. Load sensing hydraulics optimize flow for smooth, powerful performance and increased fuel efficiency.

200 Degree Bucket Rotation

Industry leading bucket rotation of over 200 degrees provides greater material retention during truck loading.

It also allows for easier vertical wall digging without having to reposition the machine.



Engine

High performance power train provides optimized engine horsepower and strong performance



Automatic engine idle automatically lowers engine revolutions when not in use to conserve fuel and lower environmental noise and emissions.

Automatic Two Speed

With the standard automatic two speed feature, the machine will automatically balance high speed and torque travel requirements based on the conditions to give the operator the optimum speed and control. The machine can be put in low gear if slower travel is desired while in tight conditions.

COMPASS Control Panel

Complete, Operational, Maintenance, Performance and Security System



The COMPASS control panel on the 303.5E CR was specifically designed by Caterpillar for compact excavators. It adds several new features to the machines increasing the amount of customer value.

Complete – All of the control panel features are standard on the 303.5E CR

Operation – Simple operation of the pattern changer, hydraulic quick coupler and fuel gauge visibility all at the push of a button

Maintenance – Maintenance intervals, diagnostics and work hours

Performance – Save up to 20% fuel while maintaining optimum performance levels

And

Security – Anti theft device with individual user and master passwords

System – Ergonomically designed control panel



Passcode Protected Security System

An anti-theft device comes standard on the 303.5E CR. A five digit alphanumeric password is required to start the machine when the anti-theft feature is enabled. There is a master password and up to five user passwords can be created by the owner if desired.

Keep your machine safe on a busy job site by locking it when you are not around.



Adjustable Auxiliary Work Tool Flow Control

The 303.5E CR features simple adjustability of the flow going down the boom and stick to the work tool. Both the standard main line and optional secondary auxiliary hydraulics can be adjusted on a scale of 1–15 through a few buttons on the control panel.

Adjust the flow to your different tools with a simple push of a button.



UNLOCK the new features and experience the value of the exclusive COMPASS control panel on the 303.5E CR



Economy Mode

This feature allows your machine to be set in a more economical power setting with a simple push of a button. While operating in this mode, the machine will maintain excellent performance levels while saving up to 20% fuel through a slightly lower engine setting.

Save money with the 303.5E CR.

Continuous Flow

Once this feature is enabled through a button on the monitor, the 303.5E CR can run in continuous flow mode. With the auxiliary hydraulics on the right hand joystick, just hold the roller switch at the desired flow rate and direction for 2.5 seconds and the machine will maintain that flow rate until it is turned off.

Maintain hydraulic flow to your tools at any flow and in any direction with the simple push of a button.

Maintenance and Performance Information

Easily keep track of various maintenance and performance parameters of your machine.

Reset the maintenance intervals and ensure the machine is receiving proper care maximizing the life of the machine.



Compact Radius, Zero Tail Swing

Work in the tightest areas



Compact Radius

The compact radius design gives greater machine versatility and the capability to work within confined areas. This allows the operator to concentrate on the work being done without having to worry about damaging the back of the machine or other job site obstacles.

Zero Tail Swing

The 303.5E features a zero tail swing design. The radius of the upper body stays entirely within the width of the undercarriage.

Undercarriage Stability and Durability

Rubber Track – The rubber track lets you work on multiple surfaces such as grass, pavement or stone without damaging the surface or machine.

Steel Track – Steel track is available for harsh conditions such as demolition. The extra weight of the steel tracks generally provides better stability when digging over the side of the machine.



Dozer Blade

Maximize your productivity

Simple Dozer Control with Float Function

The dozer function is pilot controlled from inside the cab, providing smooth, proportional operation. The standard float function is enabled by pushing the lever fully forward into the detent position. Cleanup and backfilling is easier since the operator does not have to adjust the blade height during travel.

Excellent Blade Visibility

Visibility to the blade is excellent in any position, allowing the blade to be positioned behind the operator and away from the front linkage for better access when back dragging and finishing in tight areas.

Serviceability

Simplified service and maintenance save you time and money



- Easy access to the radiator and oil cooler results in simplified cleaning and reduced maintenance times.
- S-O-SSM oil sampling valve allows easy sampling of the hydraulic fluid for preventative maintenance.
- 500 hour engine oil and filter change period reduces operating costs and machine downtime.



Easy Service

Convenient service features make maintenance easy, reducing your downtime:

- Lifting side hood allows access to air filter, main implement valve, 1-way/2-way auxiliary flow selector, accumulator, fuel filter and hydraulic tank. This eliminates the need to lift the cab when maintaining and servicing the machine.
- Swing open door provides access to major components and service points including engine oil check and fill, vertically mounted engine oil filter, starter motor and alternator.

Customer Support You Can Count On

Your Cat dealer is ready to assist you with your purchase decision and everything after.

- Financing packages are flexible to meet your needs.
- Unmatched parts availability keeps you working.
- Make comparisons of machines, with estimates of component life, preventative maintenance and cost of production.
- Your Cat dealer can evaluate the cost to repair, rebuild and replace your machine.
- For more information on Cat products, dealer services and industry solutions, visit www.cat.com.



303.5E CR Mini Hydraulic Excavator Specifications

Engine

Engine Model	Cat C1.8	
Rated Net Power @ 2,400 rpm		
ISO 9249/EEC 80/1269	23.6 kW	31.6 hp
Gross Power		
ISO 14396	24.8 kW	33.3 hp
Bore	87 mm	3.4 in
Stroke	102.4 mm	4 in
Displacement	1.8 L	110 in ³

Weights*

Operating Weight with Canopy	3548 kg	7,822 lb
Operating Weight with Cab	3732 kg	8,227 lb

* Weight includes counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines.

Travel System

Travel Speed – High	4.6 km/h	2.8 mph
Travel Speed – Low	2.6 km/h	1.6 mph
Max Traction Force – High Speed	16.9 kN	3,799 lb
Max Traction Force – Low Speed	31.0 kN	6,969 lb
Ground Pressure	32.1 kPa	4.7 psi
Gradeability (maximum)	30°	

Service Refill Capacities

Cooling System	5.5 L	1.5 gal
Engine Oil	7.0 L	1.8 gal
Fuel Tank	46 L	12.2 gal
Hydraulic Tank	42.3 L	11.2 gal
Hydraulic System	65 L	17.2 gal

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow at 2,400 rpm	87.6 L/min	23.1 gal/min
Operating Pressure – Equipment	245 bar	3,553 psi
Operating Pressure – Travel	245 bar	3,553 psi
Operating Pressure – Swing	181 bar	2,625 psi
Auxiliary Circuit – Primary (186 bar/2,734 psi)	60 L/min	15.9 gal/min
Auxiliary Circuit – Secondary (174 bar/2,524 psi)	27 L/min	7.1 gal/min
Digging Force – Stick (standard)	18.9 kN	4,249 lb
Digging Force – Stick (long)	16.9 kN	3,799 lb
Digging Force – Bucket	33.0 kN	7,419 lb

Swing System

Machine Swing Speed	9 rpm
Boom Swing – Left*	80°
Boom Swing – Right	50°

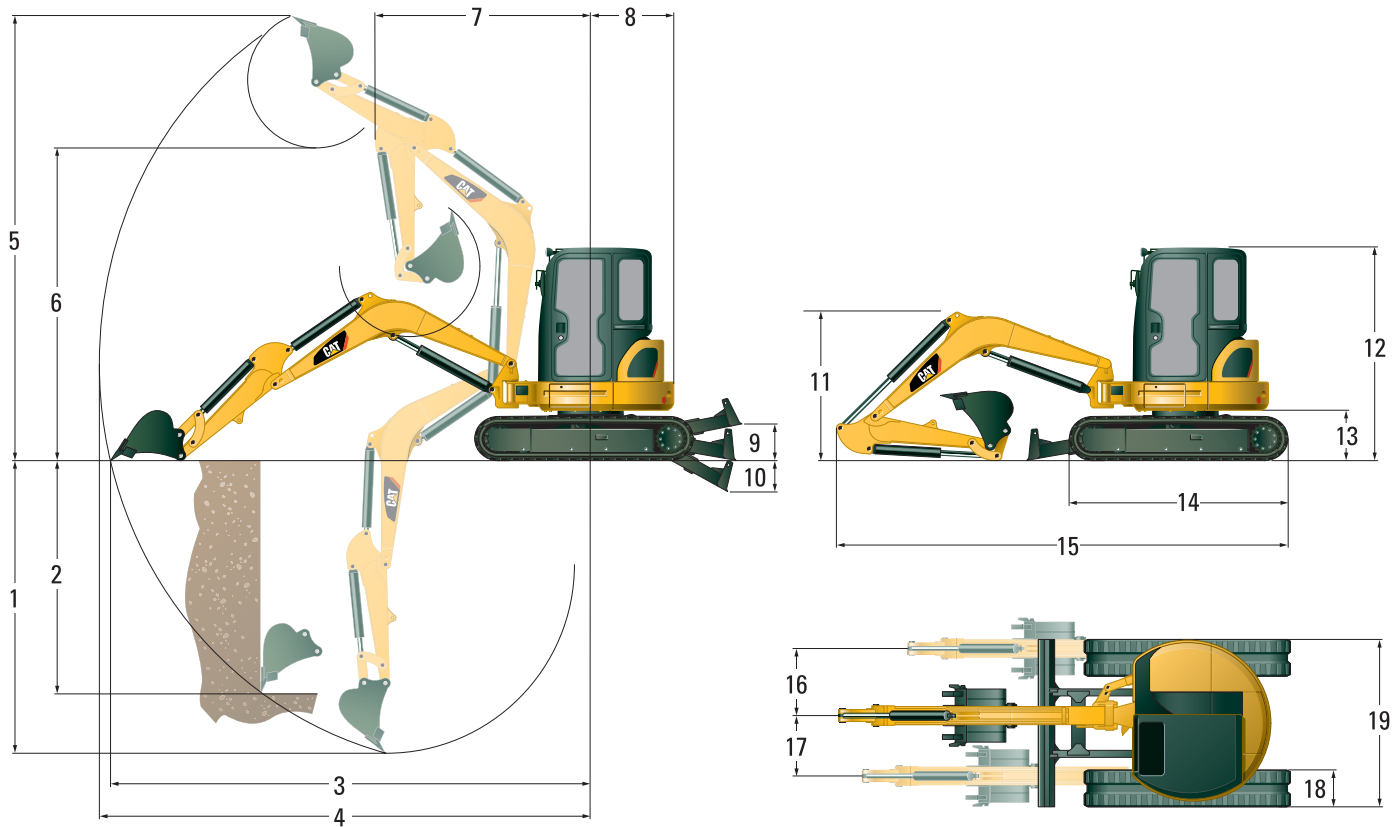
* Automatic swing break, spring applied, hydraulic release.

Blade

Width	1780 mm	70.0 in
Height	325 mm	12.8 in
Dig Depth	470 mm	18.5 in
Lift Height	400 mm	15.7 in

303.5E CR Mini Hydraulic Excavator Specifications

303.5E CR Dimensions



Standard Stick

1 Maximum Digging Depth	2880 mm	9'6"
2 Maximum Vertical Wall	2320 mm	7'8"
3 Maximum Reach at Ground Line	5060 mm	16'8"
4 Maximum Reach	5200 mm	17'1"
5 Maximum Digging Height	4920 mm	16'2"
6 Maximum Dump Height	3520 mm	11'6"
7 Boom in Reach	2060 mm	6'9"
8 Tail Swing Radius	890 mm	2'11"
9 Blade Lift Height	400 mm	1'4"
10 Blade Dig Depth	470 mm	1'7"

Standard Stick

11 Boom Height	1420 mm	4'8"
12 Shipping Height	2500 mm	8'2"
13 Ground Clearance, Counterweight	565 mm	1'10"
14 Track Length	2220 mm	7'3"
15 Shipping Length	4730 mm	15'6"
16 Boom Swing Right	765 mm	2'6"
17 Boom Swing Left	670 mm	2'2"
18 Track Shoe Width	300 mm	1'0"
19 Transport Width	1780 mm	5'10"

303.5E CR Lift Capacities at Ground Level*

Lift Point Radius		3000 mm (9'8")		4000 mm (13'1")	
		Front	Side	Front	Side
Blade Down	kg	1370	740	880	470
	lb	2,940	1,590	1,890	1,010
Blade Up	kg	770	680	490	440
	lb	1,698	1,499	1,080	970

* 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.

303.5E CR Standard Equipment

Standard Equipment

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

- 1-way and 2-way (combined function) auxiliary hydraulic lines
- Accumulator
- Adjustable auxiliary flow control for work tools
- Adjustable wrist rests
- Alternator
- Anti-theft security system
- Automatic engine idle
- Automatic swing park brake
- Automatic two speed travel
- Battery disconnect switch
- Boom cylinder guard
- Bucket, heavy duty
- Canopy with FOPS ISO 10262 (Level 1) and Tip-Over Protection (TOPS) ISO 12117
- Coat hook
- COMPASS display panel
- Cup holder
- Continuous flow
- Dozer blade with float function
- Economy mode setting for up to 20% fuel savings
- Floor mat
- Foot travel pedals
- Gauges or indicators for fuel level engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs, service interval
- Horn
- Hydraulic oil cooler
- Light, canopy
- Lockable storage box
- Low maintenance linkage pin joints
- Maintenance free battery
- Product Link™
- Rubber track
- Retractable seatbelt
- Standard stick
- Suspension seat
- Swing boom

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

- Control arrangement, primary auxiliary
- Cab, radio ready with FOPS ISO 10262 (Level 1) and Tip-Over Protection (TOPS) ISO 12117 with heater/defroster/air conditioning, interior light, windshield wiper/washer, right/left mirror and light (cab)
- Front guard, cab
- Front guard, canopy
- Steel track
- Socket beacon, canopy
- Mirror, cab, rear

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