

303E CR

Mini Hydraulic Excavator



Engine

Gross Power	18.5 kW	24.8 hp
Net Power	17.5 kW	23.5 hp

Weight

Operating Weight with Canopy	3048 kg	6,721 lb
Operating Weight with Cab	3267 kg	7,204 lb

***The Cat® 303E CR
Mini Hydraulic
Excavator delivers
high performance,
durability and
versatility in a
compact design
to help you work
in a variety of
applications.***

Contents

Solid Performance in a Small Package.....	4
Productivity and Durability.....	5
Superior Operating Experience.....	6
Simple Service and Maintenance Access.....	7
Unmatched Support and Solutions.....	8
Specifications.....	9
Standard and Optional Equipment.....	11







Solid Performance in a Small Package

Compact and efficient design provides superior power.



Compact Radius

The 303E allows you to easily reposition within a confined space and increase your overall productivity. Proficient movement is enhanced as a result of the limited tailswing and swing boom design.



Transport

With an operating weight of 3048 kg (6,721 lb) and width of 1550 mm (60 in) the 303E is simple to load and position on a trailer with tie down points – getting you to the job site quicker.



Fuel Economy

Powered by the C1.3 engine, the 303E offers the performance and power required for your job with minimal fuel consumption.

Productivity and Durability

Designed for reliability.



Auxiliary Hydraulics

The 303E is ready to work. Hammer and two way lines with quick disconnect fittings are standard on every machine.

The quick disconnects are located close to the tool to reduce hose length and decrease owning and operating costs associated with hose replacement.

Hose routings provide superior protection and cylinder guards decrease opportunity for machine damage.

Thumb Ready Stick

The machine is configured with brackets and relief valves for simple and cost effective mounting of a hydraulic thumb.

Dozer Blade

The durable blade and dozer float function provide the required design and capability to increase overall efficiency.

Ground leveling and finishing applications are fast and easy with a single lever controlling all blade operation – up, down and float.

Spacious and Ergonomic Working Environment

Your safety and comfort is incorporated into the design of every Cat® machine.

The adjustable suspension seat, retractable seat belt and adjustable wrist rests allow you to customize the operating station to meet your needs. Ergonomically designed joystick control and travel levers reduce fatigue and improve productivity.

An easy to use pattern control selector and informative gauge panel ensure optimal operation.

Cat Interlock System aids in job site safety. When the hydraulic lockout lever is in the up position no operational function is possible – including travel.

Travel alarm as standard safety offering. An audible alarm alerts job site operators of machine travel (optional in Europe).

ROPS/TOPS/TOP GUARD certification ensures the machine is prepared to protect you.

**Cab unit includes sliding door and openable front window/removable lower window.*



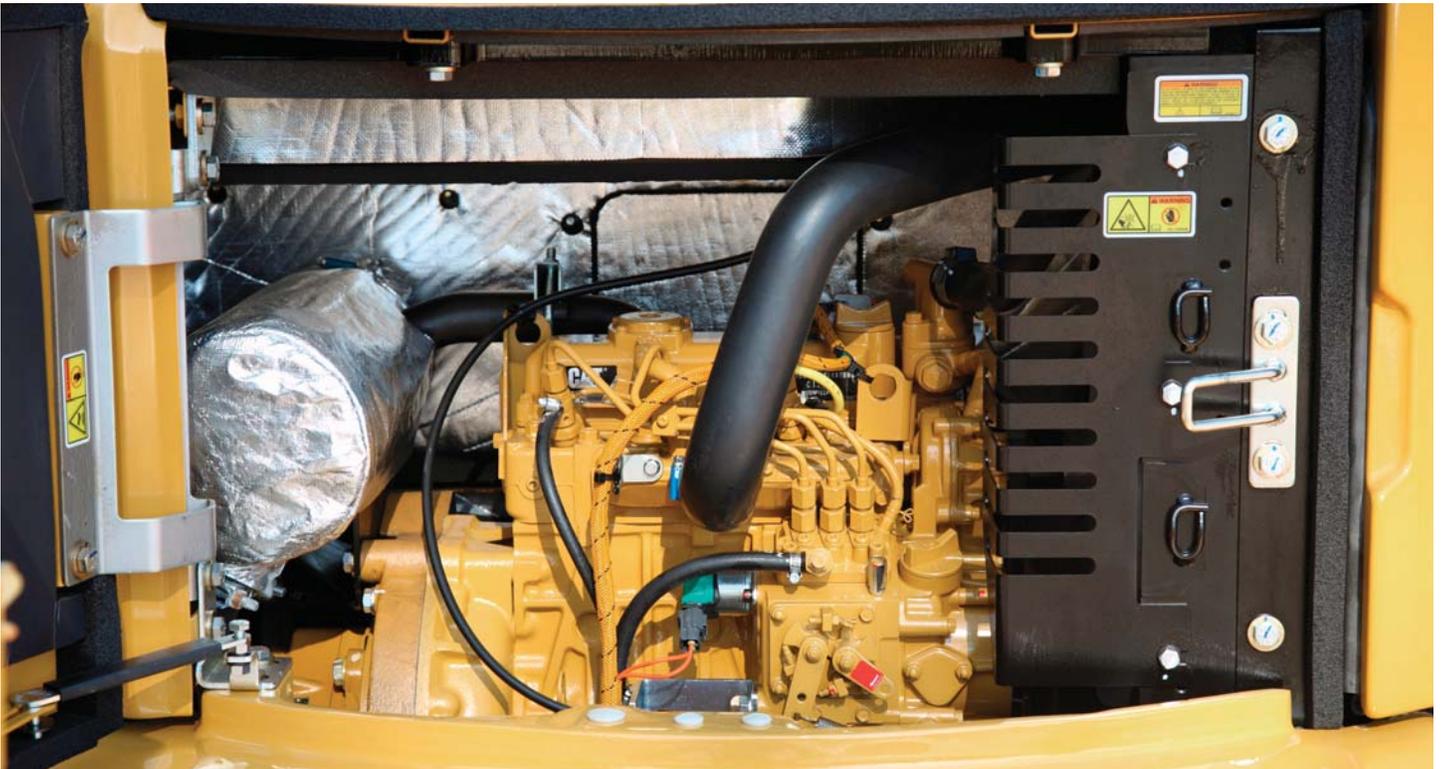
Superior Operating Experience

Safety and comfort all day.



Simple Service and Maintenance Access

Low cost of ownership.



Easy Maintenance Access and Extended Service Intervals

Ease of access to daily maintenance check points ensures your machine is in prime condition to complete any task.

Engine and hydraulic hoods are simple to open and offer outstanding visibility and convenience to check points.

500 hour engine oil and filter change period reduces operating costs and machine downtime.

Easy access to the engine oil check and fill, vertically mounted engine oil filter, starter motor and alternator, as well as the radiator and oil cooler all result in simplified cleaning and reduced maintenance times.

Unmatched Support and Solutions

Equipment, service and attachments to meet your needs.



Customized Solutions for Any Application

A range of tools is available to take advantage of the machine's versatility. All tools are matched to the machine to optimize performance and deliver excellent value through high productivity and long life.



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.

Superior parts availability keeps you working.



303E CR Mini Hydraulic Excavator Specifications

Engine

Engine Model	Cat C1.3*	
Rated Net Power @ 2,400 rpm		
ISO 9249/EEC 80/1269	17.5 kW	23.5 hp
Gross Power		
ISO 14396	18.5 kW	24.8 hp
Bore	78 mm	3.1 in
Stroke	88 mm	3.5 in
Displacement	1.3 L	77 in ³

*Engine meets U.S. EPA Tier 4 Final/EU Stage V emission standards.

Weights*

Operating Weight with Canopy		
Standard Stick	3048 kg	6,721 lb
Long Stick	3090 kg	6,813 lb
Standard Stick, Optional Counterweight	3314 kg	7,307 lb
Long Stick, Optional Counterweight	3356 kg	7,400 lb
Operating Weight with Cab		
Standard Stick	3267 kg	7,204 lb
Long Stick	3309 kg	7,296 lb
Standard Stick, Optional Counterweight	3533 kg	7,790 lb
Long Stick, Optional Counterweight	3575 kg	7,883 lb

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

Travel System

Travel Speed – High	4.5 km/h	2.8 mph
Travel Speed – Low	2.4 km/h	1.5 mph
Max Traction Force – High Speed	15.2 kN	3,417 lbf
Max Traction Force – Low Speed	30.9 kN	6,947 lbf
Ground Pressure with Canopy		
Standard Stick	30.4 kPa	4.4 psi
Long Stick	30.8 kPa	4.5 psi
Standard Stick, Optional Counterweight	33.0 kPa	4.8 psi
Long Stick, Optional Counterweight	33.5 kPa	4.9 psi
Ground Pressure with Cab		
Standard Stick	32.6 kPa	4.7 psi
Long Stick	33.0 kPa	4.8 psi
Standard Stick, Optional Counterweight	35.2 kPa	5.1 psi
Long Stick, Optional Counterweight	35.6 kPa	5.2 psi
Gradeability (Continuous Operation)	20°	
Gradeability (< 10 minutes Operation)	30°	

Service Refill Capacities

Cooling System	4.7 L	1.2 gal
Engine Oil	5.7 L	1.5 gal
Fuel Tank	45 L	11.9 gal
Hydraulic Tank	47 L	12.4 gal
Hydraulic System	65 L	17.2 gal

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow at 2,400 rpm	88 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/2,697 psi)	60 L/min	15.9 gal/min
Auxiliary Circuit – Secondary (174 bar/2,523 psi)	27 L/min	7.1 gal/min
Digging Force – Stick (Standard)	16.6 kN	3,732 lbf
Digging Force – Stick (Long)	14.8 kN	3,327 lbf
Digging Force – Bucket	28.4 kN	6,385 lbf

Operating Specifications

Stick Length – Standard	1260 mm	50 in
Stick Length – Long	1560 mm	61 in
Machine Overhang	0 mm	0 in
Machine Overhang with Extra Counterweight	115 mm	5 in

Swing System

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

*Automatic swing brake, spring applied, hydraulic release.

Blade

Width	1550 mm	60 in
Height	335 mm	13 in
Dig Depth	472 mm	19 in
Lift Height	402 mm	16 in

303E CR Mini Hydraulic Excavator Specifications

Undercarriage

Number of Carrier Rollers	1
Number of Track Rollers	4
Track Roller Type	Center Flange

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)

Lift Capacities at Ground Level*

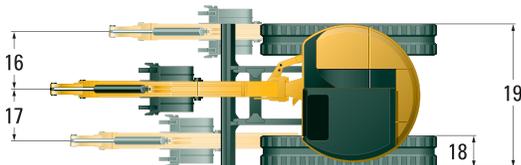
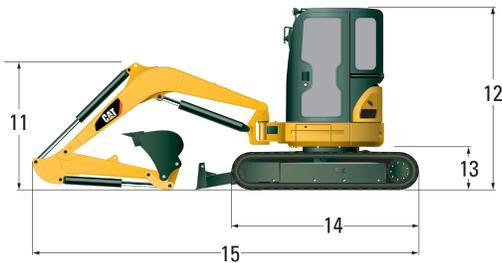
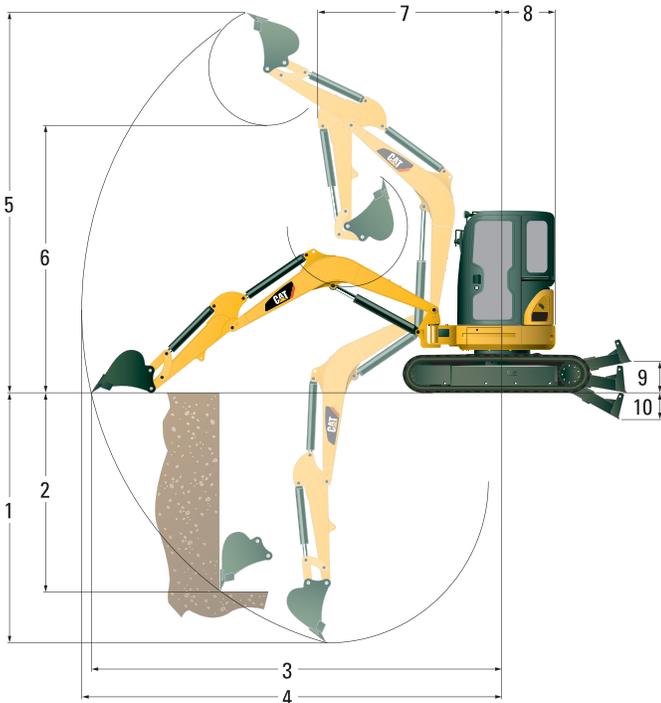
Lift Point Radius	3000 mm (9'8")		4000 mm (13'1")		
	Front	Side	Front	Side	
Blade Down	kg (lb)	1170 (2,580)	540 (1,191)	740 (1,632)	340 (750)
Blade Up	kg (lb)	650 (1,433)	490 (1,080)	410 (904)	300 (662)

*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 machine with cab, optional counterweight and standard stick.

Dimensions

All dimensions are approximate.

	Standard Stick		Long Stick	
	mm	in	mm	in
1 Dig Depth	2750	108	2980	117
2 Vertical Wall	1960	77	1750	69
3 Maximum Reach at Ground Level	4810	189	4910	193
4 Maximum Reach	4950	195	5040	198
5 Maximum Dig Height	4530	178	4250	167
6 Maximum Dump Clearance	3150	124	2970	117
7 Boom In Reach	2110	83	2000	79
8 Tail Swing	775	31	775	31
Tail Swing with Extra Counterweight	890	35	890	35
9 Maximum Blade Height	402	16	400	16
10 Maximum Blade Depth	472	19	470	19
11 Boom Height in Shipping Position	1590	63	1600	63
12 Overall Shipping Height	2500	98	2500	98
13 Swing Bearing Height	565	22	565	22
14 Overall Undercarriage Length	2080	82	2080	82
15 Overall Shipping Length	4470	176	5030	198
16 Boom Swing Right	825	32	825	32
17 Boom Swing Left	610	24	610	24
18 Track Belt/Shoe Width	300	12	300	12
19 Overall Track Width	1550	60	1550	61



Standard Equipment

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

- 1-way and 2-way (combined function) auxiliary hydraulic lines
- Adjustable armrests
- Alternator
- Automatic swing park brake
- Automatic two speed travel
- Auxiliary line quick disconnects
- Boom cylinder guard
- Cab mounted work light
- Canopy with Top Guard ISO 10262:1998 (Level 1), ROPS ISO 12117-2:2008 and TOPS ISO 12117:1997
- Coat hook
- Cup holder
- Control pattern changer
- Dozer blade with float function
- 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
- Lifting eye on bucket linkage (standard equipment for all regions except Europe)
- Lockable storage box
- Low maintenance linkage pin joints
- Maintenance free battery
- Product Link™
- Rubber track
- Retractable seatbelt
- Standard stick
- Suspension seat, vinyl covered
- “Thumb ready” sticks
- Travel alarm (optional in Europe)

Optional Equipment

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

- Beacon socket for canopy machines
- Boom mounted light
- Cab, Top Guard ISO 10262:1998 (Level 1), ROPS ISO 12117-2:2008 and TOPS ISO 12117:1997
- High back suspension seat, fabric covered
- Mechanical quick coupler
- Mirrors for cab and canopy
- Steel track

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

© 2019 Caterpillar
All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEHQ7477-02 (06-2019)
Replaces AEHQ7477-01
(Americas North and South,
EAME, ANZ)

