

Cat®
305E2 CR

Mini Hydraulic Excavator

Features:

The Cat® 305E2 CR Mini Hydraulic Excavator delivers high performance, durability and versatility in a compact design to help you work in a variety of applications. The 305E2 CR features the following:

QUALITY

- The durable hoods and frame and the compact radius design of the 305E2 let you work comfortably and confidently in confined areas.
- The operator environment includes a high quality suspension seat, easy to adjust armrests and 100% pilot controls which offer consistent and long-lasting controllability.

EFFICIENCY

- High Definition Hydraulic System provides a load sensing and flow sharing capability leading to operational precision, efficient performance and greater controllability.
- Power on Demand provides optimal efficiency and performance the moment you need it. This automatic system ensures fuel efficiency through appropriate engine rating to meet all operational needs as required.

VERSATILITY

- Broad range of Cat Work Tools make the Cat Mini Excavator a versatile machine able to meet the requirements of any job site.
- Over 200 degrees of bucket rotation provides greater material retention during truck loading and easier flat wall digging without having to reposition the machine.

PERFORMANCE

- Front shovel bucket orientation provides the operator with more ways to get the job done faster.
- COMPASS Control Panel is a standard feature that allows the operator to easily adjust auxiliary flows to achieve the optimal work tool performance, activate auto idle for improved fuel efficiency and utilize the security system to ensure protection of valuable assets with the simple touch of a button.
- The Site Reference System included in the COMPASS monitor provides output from pitch and roll sensors to aid in grading and level trenching. This impacts accuracy and productivity for job site finishing.

SERVICEABILITY

- Convenient service and maintenance requirements include ease of access to daily check points, 500 hour engine oil and filter change period, 50 hour grease interval on front implement, S·O·S℠ oil sampling valve and overall long term durability.

SAFETY

- All Cat Mini Excavators from 3.5 metric tons to 10 metric tons are ROPS, TOPS and Top Guard Level 1 certified and include the Cat Interlock (hydraulic lockout) System, a certified accumulator which allows for auxiliary pressure to be released, making connecting and disconnecting work tools safer and easier, and a travel alarm. All of these safety features are standard on the E2 model lineup (travel alarm optional in Europe).

Specifications

Engine

Engine Model*	Cat C2.4	
Rated Net Power @ 2,200 rpm		
ISO 9249/EEC 80/1269	30 kW	40.2 hp
Gross Power		
ISO 14396	31.2 kW	41.8 hp
Bore	87 mm	3.4 in
Stroke	102.4 mm	4 in
Displacement	2.4 L	146 in³

*Meets U.S. EPA Tier 4 Final emission standards for North America, EU Stage V emission standards for Europe and Tier 4 Interim emission standards for all other regions.

Weights*

Weight – Canopy, Standard Stick	4975 kg	10,970 lb
Weight – Canopy, Long Stick	5020 kg	11,069 lb
Weight – Cab, Standard Stick	5140 kg	11,334 lb
Weight – Cab, Long Stick	5185 kg	11,443 lb

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

CAT®

305E2 CR Mini Hydraulic Excavator

Swing System

Machine Swing Speed	10 rpm
Boom Swing – Left* (without stop)	80°
Boom Swing – Left* (with stop)	60°
Boom Swing – Right	50°

*Automatic swing brake, spring applied, hydraulic release.

Travel System

Travel Speed – High	4.4 km/h	2.7 mph
Travel Speed – Low	2.8 km/h	1.7 mph
Max Traction Force – High Speed	24.1 kN	5,418 lb
Max Traction Force – Low Speed	45.2 kN	10,161 lb
Ground Pressure – Canopy	29.5 kPa	4.3 psi
Ground Pressure – Cab	30.5 kPa	4.4 psi
Gradeability (maximum)	30°	

Service Refill Capacities

Cooling System	10.5 L	2.8 gal
Engine Oil	9.5 L	2.5 gal
Fuel Tank	63 L	16.6 gal
Hydraulic Tank	68.3 L	18 gal
Hydraulic System	78 L	20.6 gal

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow at 2,400 rpm	150 L/min	39.6 gal/min
Operating Pressure – Equipment	245 bar	3,553 psi
Operating Pressure – Travel	245 bar	3,553 psi
Operating Pressure – Swing	216 bar	3,132 psi
Maximum Auxiliary Circuit – Primary		
Flow at Pump*	80 L/min	21.1 gal/min
Pressure at Pump*	24 500 kPa	3,553 psi
Maximum Auxiliary Circuit – Secondary		
Flow at Pump*	25 L/min	6.6 gal/min
Pressure at Pump*	24 500 kPa	3,553 psi

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

Digging Force – Stick (standard)	24.7 kN	5,550 lb
Digging Force – Stick (long)	21.3 kN	4,788 lb
Digging Force – Bucket	44.7 kN	10,050 lb

Blade

Width	1980 mm	78.0 in
Height	375 mm	14.8 in
Dig Depth	555 mm	21.9 in
Lift Height	405 mm	15.9 in

Cab

Dynamic Operator Sound Pressure Level (ISO 6396:2008)	81 dB(A)
Exterior Sound Power Level (ISO 6395:2008)*	96 dB(A)

*European Union Directive "2000/14/EC"

Certification – Cab and Canopy

Roll Over Protective Structure (ROPS)	ISO 12117-2
TIp Over Protective Structure (TOPS)	ISO 12117
Top Guard	ISO 10262 (Level I)

Operating Specifications

Stick Length – Standard	1350 mm	52 in
Stick Length – Long	1750 mm	67 in

Undercarriage

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

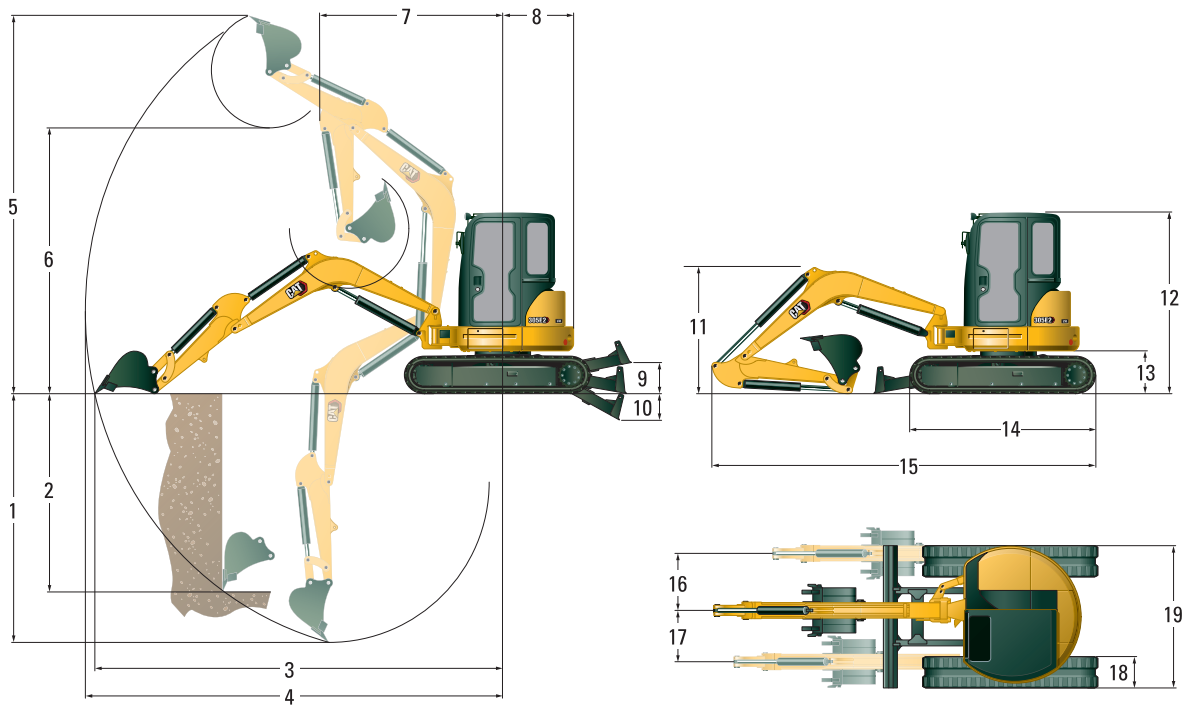
Lift Capacities at Ground Level*

Lift Point Radius		3000 mm (9'8")		4000 mm (13'1")	
		Front	Side	Front	Side
Blade Down	kg	2340	1200	1260	640
	(lb)	(5,159)	(2,646)	(2,778)	(1,411)
Blade Up	kg	1450	1070	760	570
	(lb)	(3,197)	(2,359)	(1,676)	(1,257)

*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.

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 of refrigerant which has a CO_2 equivalent of 1.4 metric tonnes.



Dimensions

		Standard Stick		Long Stick	
1	Dig Depth	3280 mm	129 in	3670 mm	144 in
2	Vertical Wall	2320 mm	91 in	2630 mm	104 in
3	Maximum Reach at Ground Level	5330 mm	210 in	5810 mm	229 in
4	Maximum Reach	5600 mm	220 in	5960 mm	235 in
5	Maximum Dig Height	5250 mm	207 in	5440 mm	214 in
6	Maximum Dump Clearance	3720 mm	129 in	3920 mm	154 in
7	Boom In Reach	2350 mm	93 in	2530 mm	100 in
8	Tail Swing	1100 mm	43 in	1100 mm	43 in
9	Maximum Blade Height	405 mm	16 in	405 mm	16 in
10	Maximum Blade Depth	555 mm	22 in	555 mm	22 in
11	Boom Height in Shipping Position	1750 mm	69 in	2150 mm	85 in
12	O/A Shipping Height	2550 mm	100 in	2550 mm	100 in
13	Swing Bearing Height	615 mm	24 in	615 mm	24 in
14	O/A Undercarriage Length	2580 mm	102 in	2580 mm	102 in
15	O/A Shipping Length	5180 mm	204 in	5290 mm	208 in
16	Boom Swing Right	785 mm	31 in	785 mm	31 in
17	Boom Swing Left	695 mm	27 in	695 mm	27 in
18	Track Belt/Shoe Width	400 mm	16 in	400 mm	16 in
19	O/A Track Width	1980 mm	78 in	1980 mm	78 in

305E2 CR Mini Hydraulic Excavator

STANDARD EQUIPMENT

ENGINE
- Cat C2.4 diesel engine (meets U.S. EPA Tier 4 Final emission standards for North America, EU Stage V emission standards for Europe and Tier 4 Interim emission standards for all other regions)
- Automatic engine idle
- Automatic engine shut-off
- Automatic two speed travel
- Diesel Particulate Filter (North America only)
- Diesel Oxidation Catalyst (North America only)
- Fuel and water separator
- Power on demand

HYDRAULIC SYSTEM
- 1-way and 2-way (combined function)
- Accumulator
- Automatic swing parking brake
- Auxiliary hydraulic lines
- Adjustable auxiliary relief
- Auxiliary line quick disconnects
- Cat interlock system: hydraulic lockout
- Continuous auxiliary flow
- Ecology drain
- Hydraulic oil cooler
- High definition hydraulics
- Load sensing/flow sharing

OPERATOR ENVIRONMENT
- 100% pilot control ergonomic joysticks
- Adjustable armrests
- COMPASS: complete, operation, maintenance, performance and security system
  - Multiple languages
- Cup holder
- Hydraulic neutral lockout bar
- Literature holder
- Pattern changer (optional in Europe)
- Site reference system: leveling
- Tool storage area
- Travel control pedals with hand levers
- Washable floor mat

UNDERCARRIAGE
- Dozer blade with float function
- Track, rubber belt, 400 mm (16 in) width
- Tie down eyes on track frame
- Towing eye on base frame

FRONT LINKAGE
- 200 degree bucket rotation
- Certified lifting eye on bucket linkage (optional in Europe)
- Front shovel capable
- Thumb ready stick

ELECTRICAL
- 12 volt electrical system
- 60 ampere alternator
- 650 CCA maintenance free battery
- Fuse box
- Ignition key start/stop switch
- Slow blow fuse
- Warning horn

LIGHTS AND MIRRORS
- Boom light with time delay capability

SAFETY AND SECURITY
- Anti-theft system (COMPASS)
- Caterpillar Corporate “One Key” System
- Door locks
- Lockable fuel cap
- Retractable seat belt
- Roll Over Protective Structure (ROPS) (ISO 12117-2)
- Tip Over Protective Structure (TOPS) (ISO 12117)
- Top guard – ISO 10262 (Level 1)
- Travel alarm (optional in Europe)

TECHNOLOGY
- Product Link™

OPTIONAL EQUIPMENT

ENGINE
- Engine block heater

HYDRAULIC SYSTEM
- Quick coupler lines
- Boom lowering check valve
- Stick lowering check valve
- Secondary auxiliary hydraulic lines

OPERATOR ENVIRONMENT
- Cab:
  - Air conditioning
  - Heat
  - High back suspension seat
  - Interior light
  - Interlocking front window system
  - Radio
  - Windshield wiper

UNDERCARRIAGE
- Power angle blade
- Track, double grouser (steel), 400 mm (16 in)
- Track, double grouser (steel) with rubber pad, 400 mm (16 in)

FRONT LINKAGE
- Quick coupler: manual or hydraulic
- Thumb
- Buckets
- Full range of performance matched work tools
  - Auger, hammer, ripper

LIGHTS AND MIRRORS
- Light, cab with time delay capability
- Mirror, canopy right
- Mirror, canopy left
- Mirror, cab rear

SAFETY AND SECURITY
- Battery disconnect
- Beacon socket
- Front wire mesh guard
- Rearview camera
- Vandal guard

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

© 2020 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 Corporate 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.

AEHQ7738-02 (06-2020)
Replaces AEHQ7738-01
(Global excluding
China and Japan)