



Cat[®] 304E2 CR

MINI HYDRAULIC EXCAVATOR WITH SWING BOOM

FEATURES:

The Cat[®] 304E2 CR Mini Hydraulic Excavator delivers efficient performance, durability and versatility in a compact design to help you work in a variety of applications. The 304E2 CR features the following:

QUALITY

- The durable hoods and frame and the compact radius design of the 304E2 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 or economy mode 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, 500 hour grease interval on front implement, S-O-SSM oil sampling valve and overall long term durability.

SAFETY

- All Cat Mini Excavators from 3.5 metric tons to 8 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 in ³

*Meets U.S. EPA Tier 4 Final/EU Stage IIIA emission standards.

Weights*

Weight – Canopy, Standard Stick	3925 kg	8,655 lb
Weight – Canopy, Long Stick	3955 kg	8,721 lb
Weight – Cab, Standard Stick	4050 kg	8,930 lb
Weight – Cab, Long Stick	4080 kg	8,996 lb

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



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Swing System

Machine Swing Speed	10 rpm
Boom Swing – Left (without stop)*	70°
Boom Swing – Left (with stop)*	55°
Boom Swing – Right	50°

*Automatic swing brake, spring applied, hydraulic release.

Travel System

Travel Speed – High	5.2 km/h	3.2 mph
Travel Speed – Low	3.3 km/h	2.1 mph
Maximum Traction Force – High Speed	16.9 kN	3,799 lb
Maximum Traction Force – Low Speed	31.0 kN	6,969 lb
Ground Pressure – Canopy	28.1 kPa	4.1 psi
Ground Pressure – Cab	29.5 kPa	4.3 psi
Gradeability (maximum)	30°	

Service Refill Capacities

Cooling System	5.5 L	1.5 gal
Engine Oil	9.5 L	2.5 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 2,200 rpm	100 L/min	26.4 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
Auxiliary Circuit – Primary (186 bar/2,734 psi)	70 L/min	18.5 gal/min
Auxiliary Circuit – Secondary (174 bar/2,524 psi)	25 L/min	6.6 gal/min
Digging Force – Stick (standard)	21.6 kN	4,856 lb
Digging Force – Stick (long)	19.5 kN	4,384 lb
Digging Force – Bucket	37.8 kN	8,498 lb

Blade

Width	1950 mm	76.8 in
Height	325 mm	12.8 in
Dig Depth	470 mm	18.5 in
Lift Height	400 mm	15.7 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	1315 mm	52 in
Stick Length – Long	1615 mm	64 in
Machine Overhang	0 mm	0 in

Undercarriage

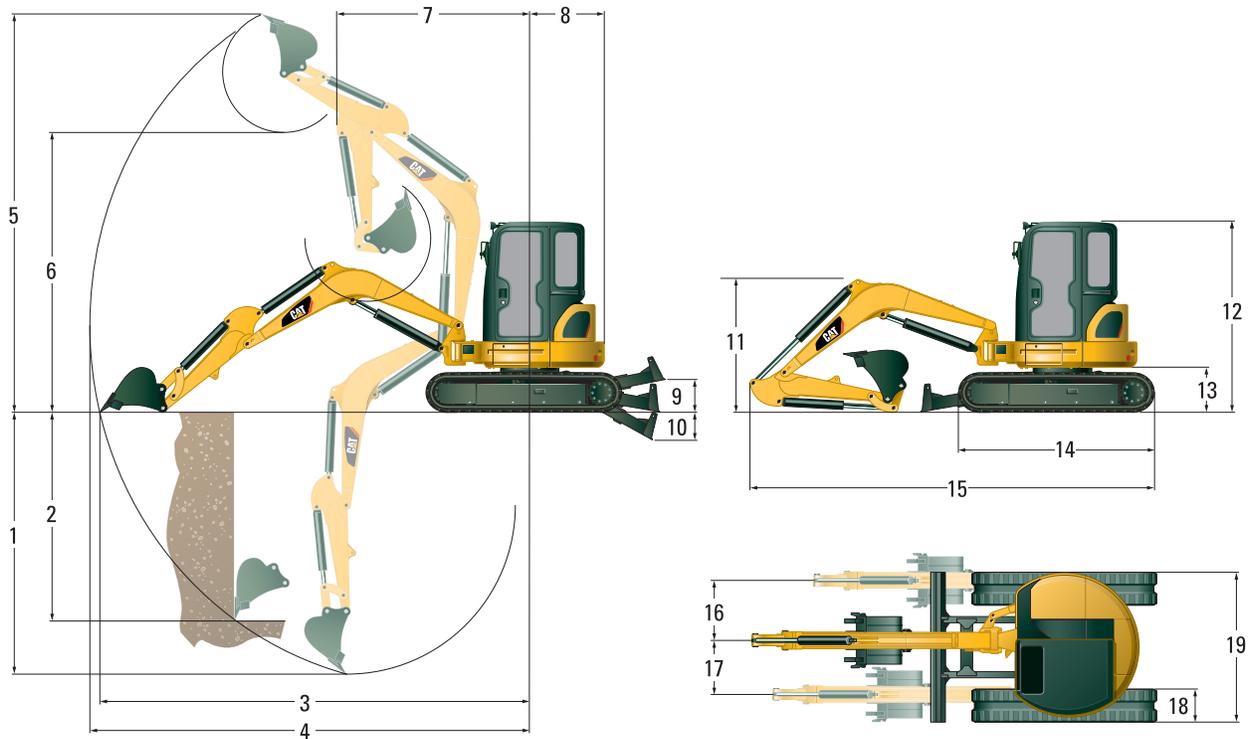
Number of Carrier Rollers	1
Number of Track Rollers	4
Track Roller Type	Center Flange

Lift Capacities at Ground Level*

Lift Point Radius		3000 mm (118 in)		4500 mm (177 in)	
		Front	Side	Front	Side
Blade Down	kg	1570	910	860	480
	(lb)	(3,462)	(2,007)	(1,896)	(1,058)
Blade Up	kg	820	820	430	430
	(lb)	(1,808)	(1,808)	(948)	(948)

*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 long stick.

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Dimensions

	Standard Stick		Long Stick	
1 Dig Depth	3130 mm	123 in	3430 mm	135 in
2 Vertical Wall	2420 mm	95 in	2560 mm	101 in
3 Maximum Reach at Ground Level	5220 mm	206 in	5470 mm	215 in
4 Maximum Reach	5350 mm	211 in	5590 mm	220 in
5 Maximum Dig Height	4980 mm	196 in	5070 mm	200 in
6 Maximum Dump Clearance	3590 mm	141 in	3690 mm	145 in
7 Boom In Reach	2110 mm	83 in	2220 mm	87 in
8 Tail Swing	975 mm	38 in	975 mm	38 in
9 Maximum Blade Height	400 mm	16 in	400 mm	16 in
10 Maximum Blade Depth	470 mm	19 in	470 mm	19 in
11 Boom Height in Shipping Position	1480 mm	58 in	1770 mm	70 in
12 O/A Shipping Height	2500 mm	98 in	2500 mm	98 in
13 Swing Bearing Height	565 mm	22 in	565 mm	22 in
14 O/A Undercarriage Length	2220 mm	87 in	2220 mm	87 in
15 O/A Shipping Length	4820 mm	190 in	4930 mm	194 in
16 Boom Swing Right	735 mm	29 in	735 mm	29 in
17 Boom Swing Left	670 mm	26 in	670 mm	26 in
18 Track Belt/Shoe Width	350 mm	14 in	350 mm	14 in
19 O/A Track Width	1950 mm	77 in	1950 mm	77 in

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STANDARD EQUIPMENT

ENGINE

- Cat C2.4 diesel engine (meets U.S. EPA Tier 4 Final emission standards for North America and EU Stage IIIA/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, 350 mm (14 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)

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), 350 mm (14 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

TECHNOLOGY

- Product Link™

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