



Cat[®] 305.5E2 CR

MINI HYDRAULIC EXCAVATOR WITH SWING BOOM

FEATURES:

The Cat[®] 305.5E2 CR Mini Hydraulic Excavator delivers high performance, durability and versatility in a compact design to help you work in a variety of applications. The 305.5E2 CR features the following:

QUALITY

- The durable hoods and frame and the compact radius design of the 305.5E2 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, 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	32.9 kW	44.1 hp
Gross Power ISO 14396	34.1 kW	45.7 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	5217 kg	11,503 lb
Weight – Canopy, Long Stick	5259 kg	11,596 lb
Weight – Cab, Standard Stick	5380 kg	11,863 lb
Weight – Cab, Long Stick	5423 kg	11,958 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)	80°
Boom Swing – Left* (with stop)	60°
Boom Swing – Right	50°

*Automatic swing brake, spring applied, hydraulic release.

Travel System

Travel Speed – High	4.5 km/h	2.8 mph
Travel Speed – Low	2.8 km/h	1.7 mph
Max Traction Force – High Speed	26.8 kN	6,025 lb
Max Traction Force – Low Speed	47.8 kN	10,746 lb
Ground Pressure – Canopy	31 kPa	4.5 psi
Ground Pressure – Cab	31.9 kPa	4.6 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	80 L/min	21.1 gal/min
Pressure	24 500 kPa	3,553 psi
Maximum Auxiliary Circuit – Secondary		
Flow	25 L/min	6.6 gal/min
Pressure	24 500 kPa	3,553 psi
Digging Force – Stick (standard)	28.9 kN	6,500 lb
Digging Force – Stick (long)	24.8 kN	5,575 lb
Digging Force – Bucket	50.9 kN	11,445 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)*	97 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	1420 mm	55 in
Stick Length – Long	1820 mm	70 in
Counterweight	165.3 kg	364.4 lb

Undercarriage

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

Lift Capacities at Ground Level*

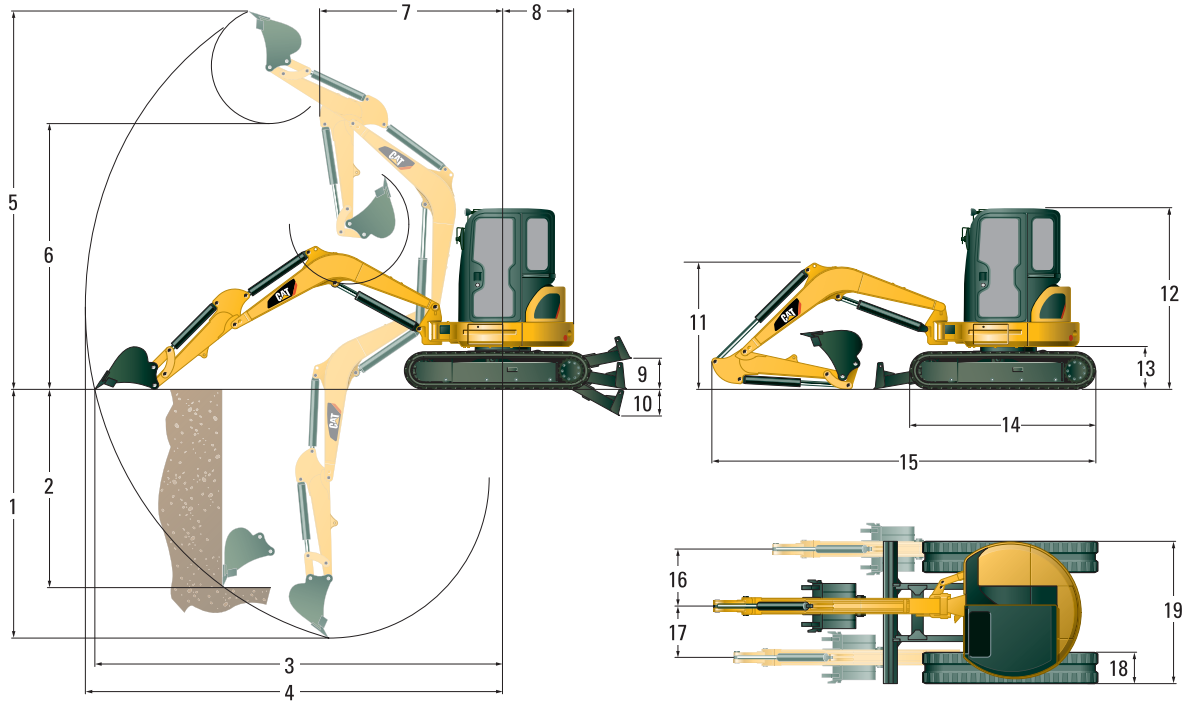
Lift Point Radius		3000 mm (9'8")		4500 mm (14'9")	
		Front	Side	Front	Side
Blade Down	kg	2590	1290	1380	690
	(lb)	(5,710)	(2,844)	(3,042)	(1,521)
Blade Up	kg	1550	1150	820	620
	(lb)	(3,417)	(2,535)	(1,808)	(1,367)

*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 CO₂ equivalent of 1.4 metric tonnes.

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Dimensions

	Standard Stick		Long Stick	
1 Dig Depth	3470 mm	137 in	3870 mm	152 in
2 Vertical Wall	2330 mm	92 in	2730 mm	107 in
3 Maximum Reach at Ground Level	5630 mm	222 in	6020 mm	237 in
4 Maximum Reach	5790 mm	228 in	6170 mm	243 in
5 Maximum Dig Height	5330 mm	210 in	5590 mm	220 in
6 Maximum Dump Clearance	3820 mm	150 in	4080 mm	161 in
7 Boom In Reach	2400 mm	94 in	2530 mm	100 in
8 Tail Swing	1130 mm	44 in	1130 mm	44 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	1740 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	5330 mm	210 in	5460 mm	215 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

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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

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

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™

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

OTHER ATTACHMENTS

- Counterweight, extra

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