



Cat[®] 307E2

MINI HYDRAULIC EXCAVATOR

FEATURES:

The Cat[®] 307E2 Mini Hydraulic Excavator delivers high performance, durability and versatility in a standard tail swing design to help you work in a variety of applications. The 307E2 features the following:

QUALITY

- The standard tail swing design incorporates a counterweight that extends further back on the machine for greater stability. The standard tail swing paired with a fixed boom on the 307E2 provides superior reach and lift.
- 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.
- 180 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.
- Rearview camera improves operator productivity and efficiency through increased visibility, making work easier to complete.

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 II 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 Turbo*	
Rated Net Power @ 2,200 rpm ISO 9249/EEC 80/1269	37.7 kW	50.6 hp
Gross Power ISO 14396	39.6 kW	53.1 hp
Bore	87 mm	3.4 in
Stroke	102.4 mm	4.0 in
Displacement	2.4 L	146.5 in ³

*Meets U.S. EPA Tier 4 Final and EU Stage IIIB emission standards.

Weights

Operating Weight with Cab	7270 kg	16,028 lb
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- Weight with steel tracks with rubber pads, bucket, operator (75 kg/165 lb), full fuel and auxiliary lines.
- Weight varies depending on machine configuration.



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Swing System

Machine Swing Speed 10.2 rpm

- Automatic swing break, spring applied, hydraulic release.

Travel System

Travel Speed		
High	5.1 km/h	3.17 mph
Low	3.2 km/h	1.99 mph
Maximum Traction Force		
High Speed	33.8 kN	7,599 lbf
Low Speed	59.3 kN	13,331 lbf
Gradeability (maximum)	20°	
Ground Pressure	33.9 kPa	4.92 psi

- Each track is driven by one independent 2-speed motor.
- Drive modules are integrated into the roller frame for total protection.
- Straight line travel when tracking and operating the front linkage simultaneously.

Service Refill Capacities

Fuel Tank	135 L	35.7 gal
Cooling System	14 L	3.7 gal
Engine Oil	11.0 L	2.9 gal
Hydraulic Tank	51 L	13.5 gal
Hydraulic System	78 L	20.6 gal

Hydraulic System

Pump Flow at 2,400 rpm	154 L/min	40.9 gal/min
Operating Pressure – Equipment	28 000 kPa	4,061 psi
Operating Pressure – Travel	28 000 kPa	4,061 psi
Operating Pressure – Swing	28 000 kPa	4,061 psi
Auxiliary Circuit – Primary (280 bar/4,061 psi)	128 L/min	33.8 gal/min
Auxiliary Circuit – Secondary (280 bar/4,061 psi)	33 L/min	8.7 gal/min
Digging Force – Stick (standard)	37.1 kN	8,340 lbf
Digging Force – Bucket	50.6 kN	11,375 lbf

- Load sensing hydraulics with variable displacement piston pump.

Blade

Width	2300 mm	90.6 in
Height	445 mm	17.5 in
Dig Depth	390 mm	15.3 in
Lift Height	350 mm	13.8 in

Cab

Average Exterior Sound Pressure	98 dB(A) ISO 6395 – Dynamic Test
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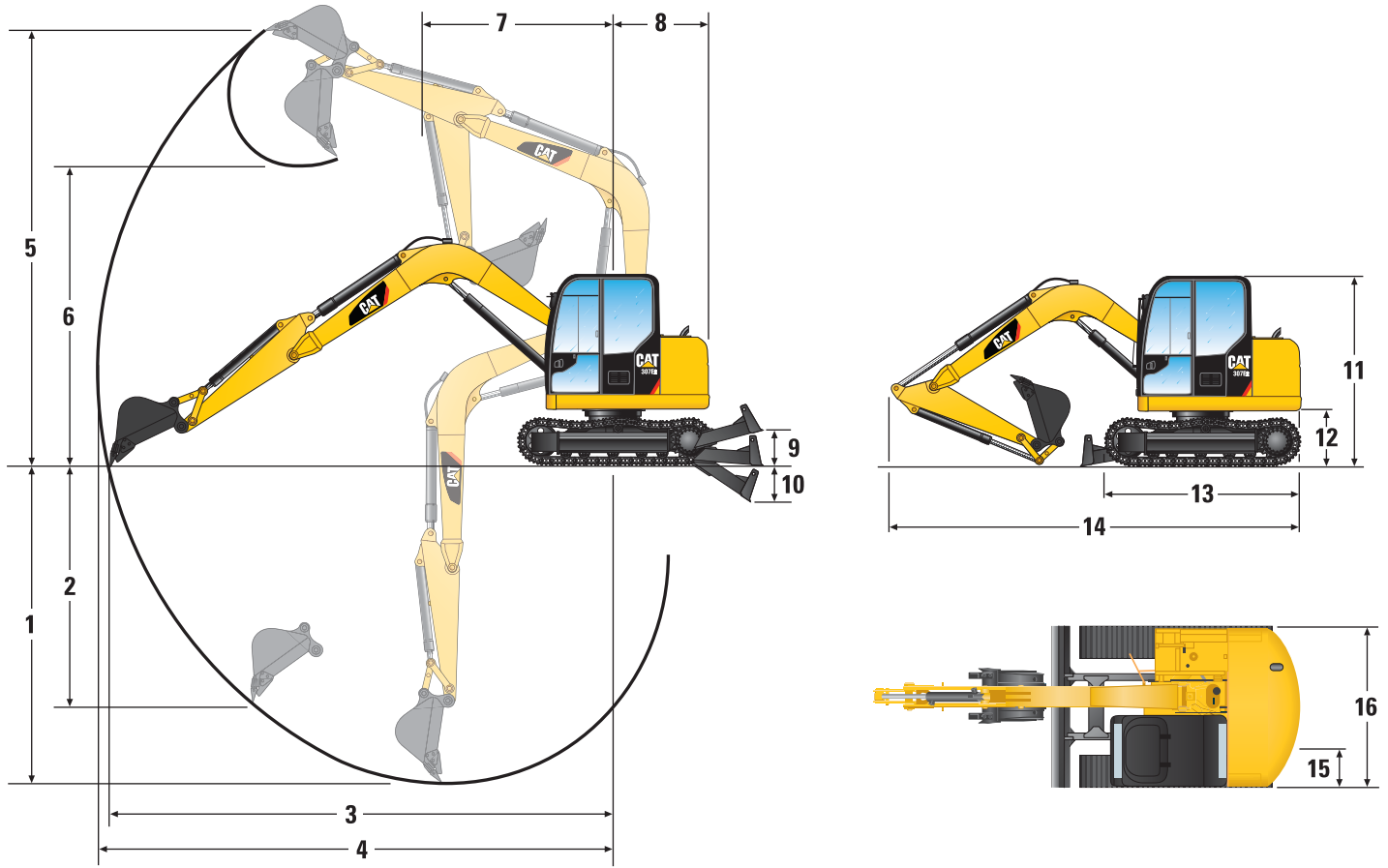
Operating Specifications

Stick Length – Standard	1670 mm	5 ft 6 in
Machine Overhang	358 mm	1 ft 2 in

Undercarriage

Number of Carrier Rollers	1 per side
Number of Track Rollers	5 per side
Track Roller Type	Center flange

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Dimensions

	Standard Stick	
1 Dig Depth	4070 mm	13'4"
2 Vertical Wall	3630 mm	11'11"
3 Maximum Reach at Ground Level	6160 mm	20'3"
4 Maximum Reach	6300 mm	20'8"
5 Maximum Dig Height	7240 mm	23'9"
6 Maximum Dump Clearance	5190 mm	17'3"
7 Boom In Reach	1690 mm	5'7"
8 Tail Swing (standard counterweight)	1750 mm	5'9"
9 Maximum Blade Height	390 mm	1'3"

	Standard Stick	
10 Maximum Blade Depth	350 mm	1'2"
11 Boom Height in Shipping Position	2630 mm	8'8"
O/A Shipping Height	2630 mm	8'8"
12 Swing Bearing Height	775 mm	2'7"
13 O/A Undercarriage Length	2760 mm	8'9"
14 O/A Shipping Length	6080 mm	19'11"
15 Track Belt/Shoe Width	450 mm	1'6"
16 O/A Track Width	2200 mm	7'3"

Lift Capacities at Ground Level (Standard Stick)*

Lift Point Radius		3000 mm (9'8")		4000 mm (13'1")		5000 mm (16'5")		5390 mm (17'8")	
		Front	Side	Front	Side	Front	Side	Front	Side
Blade Down	kg	3560	2410	2600	1520	2070	1120	1010	990
	lb	7,849	5,313	5,732	3,351	4,564	2,469	2,227	2,183
Blade Up	kg	2470	2120	1540	1350	1120	990	990	880
	lb	5,445	4,674	3,395	2,976	2,469	2,183	2,183	1,940

* The above loads are consistent 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.

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STANDARD EQUIPMENT

ENGINE

- Cat C2.4 diesel engine (meets U.S. EPA Tier 4 Final/EU Stage IIIB emission standards)
- 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
- Air conditioning/heat

- COMPASS: complete, operation, maintenance, performance and security system
 - Multiple languages
- Cup holder
- High back suspension seat, heated
- Hydraulic neutral lockout bar
- Interior light
- Literature holder
- Pattern changer (optional in Europe)
- Radio (optional in Europe)
- Site reference system: leveling
- Tool storage area
- Travel control pedals with hand levers
- Washable floor mat
- Windshield wiper

UNDERCARRIAGE

- Dozer blade with float function
- Track, rubber belt, 450 mm (18 in) width
- Tie down eyes on track frame
- Towing eye on base frame

FRONT LINKAGE

- 180 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

- Cab and boom light with time delay capability
- Mirror, rear view, cab left

SAFETY AND SECURITY

- Anti-theft system (COMPASS)
- Caterpillar Corporate "One Key" System
- Door locks
- Lockable fuel cap
- Rearview camera
- Retractable seat belt
- Roll Over Protective Structure (ROPS) (ISO 12117-2)
- Tip Over Protective Structure (TOPS) (ISO 12117)
- Top guard – ISO 10262 (Level II)
- 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

UNDERCARRIAGE

- Blade, weld on
- Track, triple grouser (steel), 450 mm (18 in)
- Track, triple grouser (steel) with rubber pad, 450 mm (18 in)
- Track, triple grouser (steel), 600 mm (24 in)

FRONT LINKAGE

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

LIGHTS AND MIRRORS

- Mirror, cab rear

SAFETY AND SECURITY

- Battery disconnect
- Front wire mesh guard
- Front steel plate guard
- Rain guard

TECHNOLOGY

- Product Link™

OTHER ATTACHMENTS

- Counterweight, extra, 1121 kg (2,493 lb)

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