

# Cat<sup>®</sup> 305E2 CR

MINI HYDRAULIC EXCAVATOR WITH SWING BOOM

### **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, 500 hour grease interval on front implement, S·O·S<sup>SM</sup> 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**

9		
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 <sup>3</sup>

<sup>\*</sup>Meets U.S. EPA Tier 4 Final/EU Stage IIIA emission standards.

# 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 ka	11.443 lb	

<sup>\*</sup>Weight includes counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines.



# **305E2 CR Mini Hydraulic Excavator with Swing Boom**

# **Swing System**

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

<sup>\*</sup>Automatic swing brake, spring applied, hydraulic release.

# **Travel System**

Traver e jetem		
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**

10.5 L	2.8 gal
9.5 L	2.5 gal
63 L	16.6 gal
68.3 L	18 gal
78 L	20.6 gal
	9.5 L 63 L 68.3 L

# **Hydraulic System**

Load Sensing Hydraulics with Variable Displacement Piston Pump			
Pump Flow at 2,400 rpm 15	50 L/min	39.6 gal/min	
Operating Pressure – Equipment 24	45 bar	3,553 psi	
Operating Pressure – Travel 24	45 bar	3,553 psi	
Operating Pressure – Swing 21	16 bar	3,132 psi	
Auxiliary Circuit – Primary			
(186 bar/2,734 psi) 80	0 L/min	21.1 gal/min	
Auxiliary Circuit – Secondary			
(174 bar/2,524 psi) 25	5 L/min	6.6 gal/min	
Digging Force – Stick (standard) 24	4.7 kN	5,550 lb	
Digging Force – Stick (long) 21	1.3 kN	4,788 lb	
Digging Force – Bucket 44	4.7 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	81 dB(A)	
(ISO 6396:2008)		
Exterior Sound Power Level	96 dB(A)	
(ISO 6395:2008)*		

<sup>\*</sup>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**

<u>- p</u>			
Stick Length – Standard	1350 mm	52 in	
Stick Length – Long	1750 mm	67 in	

# **Undercarriage**

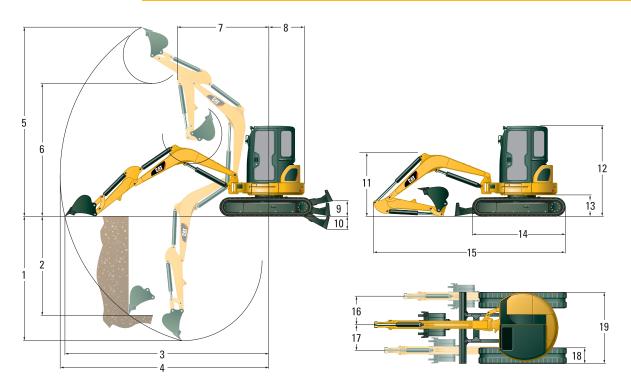
Number of Carrier Rollers	3
Number of Track Rollers	3
Track Roller Type	Triple Flange

# Lift Capacities at Ground Level\*

Lift Point Radius		3000 mm (9'8") 4000 mm (13'1		n (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)

<sup>\*</sup>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.

# **305E2 CR Mini Hydraulic Excavator with Swing Boom**



# **Dimensions**

Standard Stick		Long Stick	
3280 mm	129 in	3670 mm	144 in
2320 mm	91 in	2630 mm	104 in
5330 mm	210 in	5810 mm	229 in
5600 mm	220 in	5960 mm	235 in
5250 mm	207 in	5440 mm	214 in
3720 mm	129 in	3920 mm	154 in
2350 mm	93 in	2530 mm	100 in
1100 mm	43 in	1100 mm	43 in
405 mm	16 in	405 mm	16 in
555 mm	22 in	555 mm	22 in
1750 mm	69 in	2150 mm	85 in
2550 mm	100 in	2550 mm	100 in
615 mm	24 in	615 mm	24 in
2580 mm	102 in	2580 mm	102 in
5180 mm	204 in	5290 mm	208 in
785 mm	31 in	785 mm	31 in
695 mm	27 in	695 mm	27 in
400 mm	16 in	400 mm	16 in
1980 mm	78 in	1980 mm	78 in
	3280 mm 2320 mm 5330 mm 5600 mm 5250 mm 3720 mm 2350 mm 1100 mm 405 mm 555 mm 1750 mm 2550 mm 615 mm 2580 mm 5180 mm 785 mm 400 mm	3280 mm       129 in         2320 mm       91 in         5330 mm       210 in         5600 mm       220 in         5250 mm       207 in         3720 mm       129 in         2350 mm       93 in         1100 mm       43 in         405 mm       16 in         555 mm       22 in         1750 mm       69 in         2550 mm       100 in         615 mm       24 in         2580 mm       102 in         5180 mm       204 in         785 mm       31 in         695 mm       27 in         400 mm       16 in	3280 mm       129 in       3670 mm         2320 mm       91 in       2630 mm         5330 mm       210 in       5810 mm         5600 mm       220 in       5960 mm         5250 mm       207 in       5440 mm         3720 mm       129 in       3920 mm         2350 mm       93 in       2530 mm         1100 mm       43 in       1100 mm         405 mm       16 in       405 mm         555 mm       22 in       555 mm         1750 mm       69 in       2150 mm         2550 mm       100 in       2550 mm         615 mm       24 in       615 mm         2580 mm       102 in       2580 mm         5180 mm       204 in       5290 mm         785 mm       31 in       785 mm         695 mm       27 in       695 mm         400 mm       16 in       400 mm

# 305E2 CR Mini Hydraulic Excavator with Swing Boom

# 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, 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)

# **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**

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  - 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

# **TECHNOLOGY**

■ Product Link™

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

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