



# Cat<sup>®</sup> 310

## MINI HYDRAULIC EXCAVATOR

### FEATURES:

The Cat<sup>®</sup> 310 Mini Excavator delivers maximum power and performance in a mini size to help you work in a wide range of applications.

#### ALL DAY COMFORT

- A sealed and pressurized cab is equipped with an improved air conditioning system, adjustable wrist rests and a suspension seat to help keep you working comfortably all day long.

#### EASY TO OPERATE

- Controls are easy to use and the intuitive Next Generation Monitor provides customizable machine operator preferences and easy to read machine information.

#### STICK STEER TRAVEL MODE

- Moving around the job site is even easier with the Cat Stick Steer option. Easily switch from traditional travel controls with levers and pedals to joystick controls with a push of a button. The benefit of less effort and improved control is in your hands!

#### BIG PERFORMANCE IN A MINI DESIGN

- Increased lifting, swinging, travel and multi-functioning performance helps you get the job done more efficiently, and dig-to-blade allows for easy clean up.

#### SAFETY ON THE JOB SITE

- Your safety is our top priority. The Cat Mini Excavator is designed to help keep you safe on the job. A back-up camera, courtesy work lights and a fluorescent retractable seat belt are just a few of the safety features we've built into the machine.

#### SIMPLE SERVICE FOR LESS DOWNTIME

- Maintenance is quick and easy on the Cat Mini Excavator. Routine check points are easy to access at ground level with grouped service points and robust service panels.

#### LOWER OPERATING COSTS

- Equipped with features such as auto idle, auto engine shutdown, and efficient hydraulics with a variable displacement pump, the Cat Mini Excavator was designed with reducing your operating costs in mind.

#### UNMATCHED DEALER SUPPORT

- Your Cat dealer is here to help you reach your business goals. From providing equipment solutions to operator training to service needs and beyond, your Cat dealer is ready to help.

## Specifications

### Engine

|                                    |           |                     |
|------------------------------------|-----------|---------------------|
| Engine Model                       | Cat C3.3B |                     |
| <b>Rated Net Power @ 2,200 rpm</b> |           |                     |
| U.S. EPA Tier 4 Final              | 52.4 kW   | 70.3 hp             |
| EU Stage V                         | 53.3 kW   | 71.5 hp             |
| ISO 9249/EEC 80/1269               |           |                     |
| <b>Gross Power</b>                 |           |                     |
| ISO 14396                          | 55.4 kW   | 74.3 hp             |
| Bore                               | 94 mm     | 3.7 in              |
| Stroke                             | 120 mm    | 4.7 in              |
| Displacement                       | 3.33 L    | 203 in <sup>3</sup> |

### Weights

|                                     |           |           |
|-------------------------------------|-----------|-----------|
| Minimum Operating Weight with Cab*  | 9601 kg   | 21,166 lb |
| Maximum Operating Weight with Cab** | 10 182 kg | 22,447 lb |

\*Minimum Weight is based on steel tracks, no counterweight, operator, full fuel tank, long stick, blade and no bucket.

\*\*Maximum Weight is based on steel tracks with rubber pads, counterweight, operator, full fuel tank, long stick, blade and no bucket.

### Weight Increase from Minimum Configuration

|                        |        |        |
|------------------------|--------|--------|
| Counterweight          | 250 kg | 552 lb |
| Steel Tracks with Pads | 330 kg | 728 lb |



# 310 Mini Hydraulic Excavator

## Travel System

|                                     |            |           |
|-------------------------------------|------------|-----------|
| Travel Speed – High                 | 4.9 km/h   | 3.1 mph   |
| Travel Speed – Low                  | 2.6 km/h   | 1.6 mph   |
| Maximum Traction Force – High Speed | 28.9 kN    | 6,497 lb  |
| Maximum Traction Force – Low Speed  | 84.8 kN    | 19,064 lb |
| Ground Pressure – Minimum Weight    | 41.68 kPa  | 6 psi     |
| Ground Pressure – Maximum Weight    | 44.2 kPa   | 6 psi     |
| Gradeability (maximum)              | 30 degrees |           |

## Service Refill Capacities

|                  |        |         |
|------------------|--------|---------|
| Cooling System   | 10.0 L | 2.6 gal |
| Engine Oil       | 11.2 L | 3.0 gal |
| Fuel Tank        | 145 L  | 38 gal  |
| Hydraulic Tank   | 53 L   | 14 gal  |
| Hydraulic System | 140 L  | 37 gal  |

## Hydraulic System

|                                                                |           |            |
|----------------------------------------------------------------|-----------|------------|
| Load Sensing Hydraulics with Variable Displacement Piston Pump |           |            |
| Pump Flow @ 2,400 rpm                                          | 233 L/min | 62 gal/min |
| Operating Pressure – Equipment                                 | 285 bar   | 4,134 psi  |
| Operating Pressure – Travel                                    | 285 bar   | 4,134 psi  |
| Operating Pressure – Swing                                     | 230 bar   | 3,336 psi  |
| Auxiliary Circuit – Primary                                    |           |            |
| Flow                                                           | 131 L/min | 35 gal/min |
| Pressure                                                       | 285 bar   | 4,134 psi  |
| Auxiliary Circuit – Secondary                                  |           |            |
| Flow                                                           | 33 L/min  | 9 gal/min  |
| Pressure                                                       | 285 bar   | 4,134 psi  |
| Digging Force – Stick                                          | 49.2 kN   | 11,060 lb  |
| Digging Force – Bucket                                         | 77.7 kN   | 17,459 lb  |

## Swing System

|                     |          |
|---------------------|----------|
| Machine Swing Speed | 10.6 rpm |
|---------------------|----------|

## Blade

|                  |         |        |
|------------------|---------|--------|
| Width (Standard) | 2470 mm | 97 in  |
| Width (Wide)     | 2640 mm | 104 in |
| Height           | 431 mm  | 17 in  |

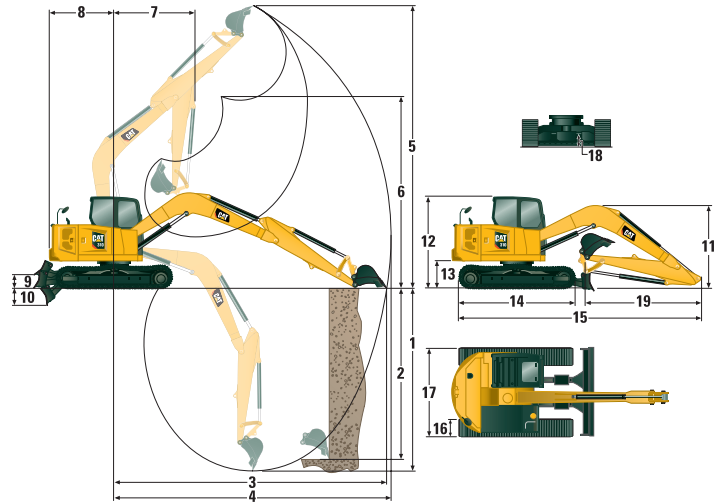
## Certification – Cab

|                                       |                           |
|---------------------------------------|---------------------------|
| Roll Over Protective Structure (ROPS) | ISO 12117-2:2008          |
| Tip Over Protective Structure (TOPS)  | ISO 12117:1997            |
| Top Guard                             | ISO 10262:1998 (Level II) |

## Sound

|                                                    |          |
|----------------------------------------------------|----------|
| Operator Sound Pressure<br>(ISO 6396:2008)         | 72 dB(A) |
| Average Exterior Sound Pressure<br>(ISO 6395:2008) | 99 dB(A) |

• European Union Directive “2000/14/EC”



## Dimensions

|                                  |         |        |
|----------------------------------|---------|--------|
| 1 Dig Depth                      | 5211 mm | 205 in |
| 2 Vertical Wall                  | 4873 mm | 192 in |
| 3 Maximum Reach at Ground Level  | 7518 mm | 296 in |
| 4 Maximum Reach                  | 7644 mm | 301 in |
| 5 Maximum Dig Height             | 7970 mm | 314 in |
| 6 Maximum Dump Clearance         | 5829 mm | 230 in |
| 7 Boom in Reach                  | 2272 mm | 90 in  |
| 8 Tail Swing with Counterweight  | 1995 mm | 79 in  |
| Tail Swing without Counterweight | 1800 mm | 71 in  |
| 9 Maximum Blade Height           | 355 mm  | 14 in  |
| 10 Maximum Blade Depth           | 671 mm  | 26 in  |
| 11 Transport Height              | 2884 mm | 114 in |
| 12 Cab Height                    | 2607 mm | 103 in |
| 13 Swing Bearing Height          | 822 mm  | 32 in  |
| 14 Overall Undercarriage Length  | 3200 mm | 126 in |
| 15 Overall Shipping Length       | 6579 mm | 259 in |
| 16 Track Belt/Shoe Width         | 450 mm  | 18 in  |
| 17 Overall Track Width           | 2470 mm | 97 in  |
| 18 Ground Clearance              | 356 mm  | 14 in  |
| 19 Stick Length                  | 2500 mm | 98 in  |

# 310 Mini Hydraulic Excavator

## Lift Capacities – Minimum Configuration\*

| Lift Point Height |            |         | 3 m (9.8 ft)  |               |               | 4.5 m (14.8 ft) |              |              | Lift Point Radius (Maximum) |              |              |             |
|-------------------|------------|---------|---------------|---------------|---------------|-----------------|--------------|--------------|-----------------------------|--------------|--------------|-------------|
|                   |            |         | Over Front    |               | Over Side     | Over Front      |              | Over Side    | Over Front                  |              | Over Side    | m (ft)      |
|                   |            |         | Blade Down    | Blade Up      |               | Blade Down      | Blade Up     |              | Blade Down                  | Blade Up     |              |             |
| 4.5 m (14.8 ft)   | Long Stick | kg (lb) | 2707 (5,968)  | 2707 (5,968)  | 2694 (5,939)  | 2547 (5,615)    | 2547 (5,615) | 2554 (5,631) | 1364 (3,007)                | 1364 (3,007) | 1364 (3,007) | 6.06 (19.9) |
| 3 m (9.8 ft)      | Long Stick | kg (lb) | 3694 (8,144)  | 3694 (8,144)  | 3735 (8,234)  | 2865 (6,316)    | 2865 (6,316) | 2884 (6,358) | 1361 (3,000)                | 1361 (3,000) | 1361 (3,000) | 6.61 (21.7) |
| 1.5 m (4.9 ft)    | Long Stick | kg (lb) | 4864 (10,723) | 4864 (10,723) | 4952 (10,917) | 3278 (7,227)    | 3278 (7,227) | 2304 (5,079) | 1440 (3,175)                | 1440 (3,175) | 1202 (2,650) | 6.79 (22.3) |
| 0 m (0 ft)        | Long Stick | kg (lb) | 5337 (11,766) | 5337 (11,766) | 3880 (8,554)  | 3502 (7,721)    | 2728 (6,014) | 2136 (4,709) | 1623 (3,578)                | 1623 (3,578) | 1204 (2,654) | 6.64 (21.8) |

\*Minimum Weight includes steel tracks, no counterweight, operator, full fuel tank, long stick, blade and no bucket.

## Lift Capacities – Maximum Configuration\*\*

| Lift Point Height |            |         | 3 m (9.8 ft)  |               |               | 4.5 m (14.8 ft) |              |              | Lift Point Radius (Maximum) |              |              |             |
|-------------------|------------|---------|---------------|---------------|---------------|-----------------|--------------|--------------|-----------------------------|--------------|--------------|-------------|
|                   |            |         | Over Front    |               | Over Side     | Over Front      |              | Over Side    | Over Front                  |              | Over Side    | m (ft)      |
|                   |            |         | Blade Down    | Blade Up      |               | Blade Down      | Blade Up     |              | Blade Down                  | Blade Up     |              |             |
| 4.5 m (14.8 ft)   | Long Stick | kg (lb) | 2709 (5,972)  | 2709 (5,972)  | 2696 (5,944)  | 2548 (5,617)    | 2548 (5,617) | 2556 (5,635) | 1364 (3,007)                | 1364 (3,007) | 1364 (3,007) | 6.06 (19.9) |
| 3 m (9.8 ft)      | Long Stick | kg (lb) | 3702 (8,162)  | 3702 (8,162)  | 3743 (8,252)  | 2868 (6,323)    | 2868 (6,323) | 2887 (6,365) | 1361 (3,000)                | 1361 (3,000) | 1361 (3,000) | 6.61 (21.7) |
| 1.5 m (4.9 ft)    | Long Stick | kg (lb) | 4871 (10,739) | 4871 (10,739) | 4959 (10,933) | 3280 (7,231)    | 3280 (7,231) | 2537 (5,593) | 1441 (3,177)                | 1441 (3,177) | 1441 (3,177) | 6.79 (22.3) |
| 0 m (0 ft)        | Long Stick | kg (lb) | 5337 (11,766) | 5337 (11,766) | 4295 (9,469)  | 3502 (7,721)    | 3014 (6,645) | 2370 (5,225) | 1624 (3,580)                | 1624 (3,580) | 1347 (2,970) | 6.64 (21.8) |

\*\*Maximum Weight includes steel tracks with rubber pads, counterweight, operator, full fuel tank, long stick, blade and no bucket.

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## EQUIPMENT

### ENGINE

- Cat C3.3B Diesel Engine (U.S. EPA Tier 4 Final/EU Stage V) – Electronic Engine, Turbo, Diesel Particulate Filter (DPF)
- Automatic Engine Idle
- Automatic Engine Shutdown
- Automatic Swing Brake
- Automatic Two Speed Travel
- Fuel Water Separator with Indicator
- Radial Seal – Double Element Air Filter
- Extended Life Coolant, –37° C (–35° F)
- Ecology Drain

### HYDRAULICS

- Smart Tech Electronic Pump
- Variable Displacement Piston Pump
- Load Sensing/Flow Sharing Hydraulics
- Power On Demand
- Hydraulic Temperature Monitoring
- Certified Accumulator
- HYDO Advanced Hydraulic Oil

### OPERATOR ENVIRONMENT

- Sealed and Pressurized Cab
- Operator Sound Pressure 72 dB(A) ISO 6396
- Stick Steer Mode
- Travel Cruise Control
- Control Pattern Changer
- Adjustable Wrist Rests
- Molded Footrests
- Removable, Washable Floor Mat

- Travel Pedals and Hand Levers
- Cat Key with Passcode Option
- HVAC with Automatic Temperature Control
- Hydraulic Lockout Controls
- Integrated Lower Front Window
- Assisted Front Window Overhead Storage
- Rear Window Emergency Exit
- Fabric, High Back, Suspension Seat
- Retractable Seat Belt (75 mm/3 in)
- Coat Hook
- Cup Holder
- LED Interior Light
- Literature Holder
- 12V Power Socket
- Radio – Bluetooth®, USB, Auxiliary, Microphone
- Skylight
- Mounting Bosses for Top and Front Guards
- ROPS – ISO 12117-2:2008
- TOPS – ISO 12117:1997
- Top Guard – ISO 10262:1998 (Level II)
- Color LCD Monitor
  - Fuel Level and Coolant Temperature Gauges
  - Maintenance and Machine Monitoring
  - Performance and Machine Adjustments
  - Numeric Security Code
  - Multiple Languages
  - Camera Ready
  - Hour Meter with Wake Up Switch
  - Jog Dial Control Interface

### UNDERCARRIAGE

- Greased and Lubricated Track
- Hydraulic Track Adjusters
- Tie Down Eyes on Track Frame
- Dozer Blade
- Dozer Float
- Bolt-on, Reversible Wear Edge
- Steel Tracks (450 mm/17.7 in wide)

### BOOM, STICK AND LINKAGES

- One Piece Boom (4300 mm/169.3 in)
- Long Stick (2500 mm/98.4 in)
- Front Shovel Capable (Pin-On/Manual Coupler/Hydraulic Coupler – not available in all regions)
- Thumb Ready (not available in all regions)
- Certified Lifting Eye (not available in all regions)

### ELECTRICAL

- 12 Volt Electrical System
- 60 Ampere Alternator
- 900 CCA Maintenance Free Battery
- Battery Disconnect
- Ignition Key Stop Switch
- Signaling/Warning Horn
- Product Link™ Elite Lite (regulations apply)
- Travel Alarm

## OPTIONAL EQUIPMENT

### OPERATOR ENVIRONMENT

- Rain Visor
- Air Suspension Heated Seat

### ELECTRICAL

- Rearview Camera
- Rotating Beacon

### OTHER

- Attachments including Buckets, Augers and Hammers
- Steel Track with Rubber Pads
- Wide Steel Tracks (600 mm/23.6 in)
- 2nd Auxiliary Hydraulic Lines with Case Drain
- Boom and Stick Hose Burst Check Valves
- Bucket Linkage with Lift Eye
- Track Guides
- Water Jacket Heater
- Refueling Pump
- Cab Guarding

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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