



Cat[®] 301.5

MINI EXCAVATOR

FEATURES:

The Cat[®] 301.5 Mini Excavator delivers power and performance in a compact size to help you work in a wide range of applications.

ALL DAY COMFORT

- Adjustable wrist rests and a suspension seat option help keep you working comfortably all day long.

EASY TO OPERATE

- Controls are easy to use and the intuitive Next Generation LCD monitor provides 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 COMPACT DESIGN

- Strong lift and dig performance helps you get the job done faster. The retractable undercarriage lets you access and work in the tightest areas. Dig-to-blade and dozer float features allow 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. Courtesy work lights and a fluorescent retractable seat belt are just a couple 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 through the side doors. The unique tilt up canopy lets you reach additional service areas when needed.

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 | C1.1 | |
| Rated Net Power @ 2,400 rpm | | |
| ISO 9249/EEC 80/1269 | 14.3 kW | 19.2 hp |
| Gross Power | | |
| ISO 14396 | 16.1 kW | 21.6 hp |
| Bore | 77.0 mm | 3.0 in |
| Stroke | 81.0 mm | 3.2 in |
| Displacement | 1.1 L | 69.0 in ³ |

Weights

| | | |
|--|---------|----------|
| Minimum Operating Weight with Canopy* | 1575 kg | 3,472 lb |
| Maximum Operating Weight with Canopy** | 1768 kg | 3,898 lb |

*Minimum Weight is based on rubber tracks, canopy, operator, fixed undercarriage and full fuel tank.

**Maximum Weight is based on steel tracks, canopy, operator, expandable undercarriage and full fuel tank.

Weight Increase from Minimum Configuration

| | | |
|--------------------------|--------|--------|
| Long Stick | 7 kg | 15 lb |
| Steel Tracks | 57 kg | 126 lb |
| Expandable Undercarriage | 129 kg | 284 lb |



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Travel System

| | | |
|-------------------------------------|------------|-------------|
| Travel Speed – High | 4.4 km/h | 2.7 mph |
| Travel Speed – Low | 2.9 km/h | 1.8 mph |
| Maximum Traction Force – High Speed | 10.3 kN | 2,315.5 lbf |
| Maximum Traction Force – Low Speed | 16.0 kN | 3,597.0 lbf |
| Ground Pressure – Minimum Weight | 27.3 kPa | 4.0 psi |
| Ground Pressure – Maximum Weight | 30.6 kPa | 4.4 psi |
| Gradeability (maximum) | 30 degrees | |

Service Refill Capacities

| | | |
|------------------|--------|---------|
| Cooling System | 3.9 L | 1.0 gal |
| Engine Oil | 4.4 L | 1.2 gal |
| Fuel Tank | 22.0 L | 5.8 gal |
| Hydraulic Tank | 18.0 L | 4.8 gal |
| Hydraulic System | 26.0 L | 6.9 gal |

Hydraulic System

| | | |
|--|----------|--------------|
| Load Sensing Hydraulics with Variable Displacement Piston Pump | | |
| Pump Flow @ 2,400 rpm | 66 L/min | 17.4 gal/min |
| Operating Pressure – Equipment | 213 bar | 3,089.3 psi |
| Operating Pressure – Travel | 213 bar | 3,089.3 psi |
| Operating Pressure – Swing | 103 bar | 1,493.9 psi |
| Auxiliary Circuit – Primary | | |
| Flow | 33 L/min | 8.7 gal/min |
| Pressure | 213 bar | 3,089.3 psi |
| Auxiliary Circuit – Secondary | | |
| Flow | 14 L/min | 3.7 gal/min |
| Pressure | 213 bar | 3,089.3 psi |
| Digging Force – Stick (standard) | 8.2 kN | 1,843.4 lbf |
| Digging Force – Stick (long) | 7.2 kN | 1,616.4 lbf |
| Digging Force – Bucket | 14.1 kN | 3,169.8 lbf |

Swing System

| | |
|---------------------|---------|
| Machine Swing Speed | 9.8 rpm |
|---------------------|---------|

Blade

| | | |
|--------|--------|---------|
| Width* | 990 mm | 39.0 in |
| Height | 225 mm | 8.9 in |

*Expanded – 1300 mm (51 in)

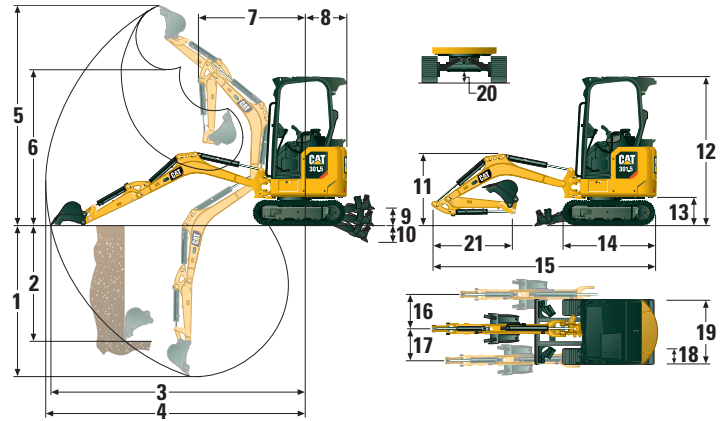
Certification – Canopy

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

Sound

| | |
|---|----------|
| Average Exterior Sound Pressure (ISO 6395:2008) | 93 dB(A) |
|---|----------|

• European Union Directive “2000/14/EC”



Dimensions

| | Standard Stick | Long Stick |
|---|--------------------|--------------------|
| 1 Dig Depth | 2340 mm (92.1 in) | 2540 mm (100.0 in) |
| 2 Vertical Wall | 1800 mm (70.9 in) | 1890 mm (74.4 in) |
| 3 Maximum Reach at Ground Level | 3730 mm (146.9 in) | 3890 mm (153.1 in) |
| 4 Maximum Reach | 3800 mm (149.6 in) | 3960 mm (155.9 in) |
| 5 Maximum Dig Height | 3430 mm (135.0 in) | 3490 mm (137.4 in) |
| 6 Maximum Dump Clearance | 2450 mm (96.5 in) | 2510 mm (98.8 in) |
| 7 Boom in Reach | 1460 mm (57.5 in) | 1450 mm (57.1 in) |
| 8 Tail Swing | 820 mm (32.3 in) | 820 mm (32.3 in) |
| 9 Maximum Blade Height | 275 mm (10.8 in) | 275 mm (10.8 in) |
| 10 Maximum Blade Depth | 260 mm (10.2 in) | 260 mm (10.2 in) |
| 11 Boom Height in Shipping Position | 1090 mm (42.9 in) | 1040 mm (40.9 in) |
| 12 Overall Shipping Height | 2310 mm (90.9 in) | 2310 mm (90.9 in) |
| 13 Swing Bearing Height | 445 mm (17.5 in) | 445 mm (17.5 in) |
| 14 Overall Undercarriage Length | 1460 mm (57.5 in) | 1460 mm (57.5 in) |
| 15 Overall Shipping Length† | 3620 mm (142.5 in) | 3590 mm (141.3 in) |
| 16 Boom Swing Right | 50 degrees | 50 degrees |
| 17 Boom Swing Left | 65 degrees | 65 degrees |
| 18 Track Belt/Shoe Width | 230 mm (9.1 in) | 230 mm (9.1 in) |
| 19 Track Width | | |
| Retracted | 990 mm (39.0 in) | 990 mm (39.0 in) |
| Expanded | 1300 mm (51.18 in) | 1300 mm (51.18 in) |
| 20 Minimum Ground Clearance Below Undercarriage | 155 mm (6.1 in) | 155 mm (6.1 in) |
| 21 Stick Length | 960 mm (37.8 in) | 1160 mm (45.7 in) |

†Overall Shipping Length depends on blade position during shipment.

Lift Capacities – Minimum Configuration*

| Lift Point Height | | | 2 m (6.6 ft) | | | Lift Point Radius (Maximum) | | | |
|-------------------|----------------|---------|--------------|-------------|-----------|-----------------------------|------------|-----------|------------|
| | | | Over Front | | Over Side | Over Front | | Over Side | m (ft) |
| | | | Blade Up | Blade Down | | Blade Up | Blade Down | | |
| 2 m (6.6 ft) | Standard Stick | kg (lb) | | | | 242 (540) | 290 (641) | 182 (407) | 2.9 (9.6) |
| | Long Stick | kg (lb) | | | | 218 (487) | 230 (508) | 164 (365) | 3.1 (10.2) |
| 1.5 m (4.9 ft) | Standard Stick | kg (lb) | 384 (828) | 384 (828) | 324 (699) | 212 (471) | 283 (625) | 159 (353) | 3.2 (10.3) |
| | Long Stick | kg (lb) | | | | 194 (429) | 227 (501) | 144 (319) | 3.3 (10.9) |
| 1 m (3.3 ft) | Standard Stick | kg (lb) | 412 (888) | 584 (1,249) | 303 (655) | 198 (437) | 289 (637) | 147 (325) | 3.3 (10.7) |
| | Long Stick | kg (lb) | 415 (896) | 495 (1,059) | 306 (661) | 181 (399) | 234 (514) | 134 (295) | 3.4 (11.3) |
| 0 m (0 ft) | Standard Stick | kg (lb) | 379 (818) | 704 (1,518) | 273 (590) | 197 (435) | 343 (756) | 146 (322) | 3.2 (10.5) |
| | Long Stick | kg (lb) | 375 (808) | 703 (1,514) | 269 (581) | 179 (395) | 277 (611) | 131 (290) | 3.4 (11.1) |

*Minimum Weight includes rubber tracks, canopy, operator, full fuel tank, expanded undercarriage, and no bucket.

Lift Capacities – Maximum Configuration**

| Lift Point Height | | | 2 m (6.6 ft) | | | Lift Point Radius (Maximum) | | | |
|-------------------|----------------|---------|--------------|-------------|-------------|-----------------------------|------------|-----------|------------|
| | | | Over Front | | Over Side | Over Front | | Over Side | m (ft) |
| | | | Blade Up | Blade Down | | Blade Up | Blade Down | | |
| 2 m (6.6 ft) | Standard Stick | kg (lb) | | | | 269 (601) | 290 (641) | 290 (641) | 2.9 (9.6) |
| | Long Stick | kg (lb) | | | | 230 (508) | 230 (508) | 230 (508) | 3.1 (10.2) |
| 1.5 m (4.9 ft) | Standard Stick | kg (lb) | 384 (828) | 384 (828) | 384 (828) | 237 (526) | 283 (625) | 272 (602) | 3.2 (10.3) |
| | Long Stick | kg (lb) | | | | 217 (480) | 227 (501) | 227 (501) | 3.3 (10.9) |
| 1 m (3.3 ft) | Standard Stick | kg (lb) | 456 (985) | 584 (1,249) | 522 (1,125) | 222 (489) | 289 (637) | 254 (562) | 3.3 (10.7) |
| | Long Stick | kg (lb) | 459 (991) | 495 (1,059) | 495 (1,059) | 203 (448) | 234 (514) | 234 (514) | 3.4 (11.3) |
| 0 m (0 ft) | Standard Stick | kg (lb) | 424 (914) | 704 (1,518) | 489 (1,054) | 222 (489) | 343 (756) | 255 (563) | 3.2 (10.5) |
| | Long Stick | kg (lb) | 419 (903) | 703 (1,514) | 484 (1,043) | 202 (445) | 277 (611) | 233 (515) | 3.4 (11.1) |

**Maximum Weight includes steel tracks, canopy, operator, full fuel tank, expanded undercarriage, and no bucket.

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EQUIPMENT

ENGINE

- Cat C1.1 Engine (U.S. EPA Tier 4 Final/ EU Stage V)
- Automatic Engine Idle
- Automatic Engine Shutdown
- Automatic Two Speed Travel
- Fuel Water Separator
- Power on Demand (not available in all regions)
- Variable Displacement Piston Pump
- Load Sensing/Flow Sharing Hydraulics

HYDRAULICS

- Smart Tech Electronic Pump
- Accumulator
- Automatic Swing Brake
- Auxiliary Hydraulic Lines
- One and Two Way Auxiliary Flow
- Continuous Auxiliary Flow
- Auxiliary Line Quick Disconnects

OPERATOR ENVIRONMENT

- Canopy Only
- ROPS – ISO 12117-2:2008
- TOPS – ISO 12117:1997
- Top Guard – ISO 10262:1998 (Level I)
- Next Generation Standard LCD Monitor
- Machine Security – Standard Key with Pass Code or Push to Start with Fob
- Adjustable Wrist Rests
- Vinyl Seat (with or without suspension)
- Retractable High Visibility Seat Belt (75 mm/3 in)
- Coat Hook
- Cup Holder
- Storage Pocket
- Skylight
- Washable Floor Mat
- Travel Pedals and Levers
- Next Generation Stick Steer
- Hydraulic Lockout – All Controls
- Machine 2-Point Lifting
- Tilt-up Canopy

UNDERCARRIAGE

- Fixed or Expandable Undercarriage
- Rubber Belt or Steel Track (230 mm/9 in wide)
- Dozer Blade with Float
- Tie Downs on Track Frame

BOOM, STICK AND LINKAGES

- One Piece Boom (1780 mm/70 in)
- Standard Stick (960 mm/37.8 in) or Long Stick (1160 mm/45.7 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 Battery
- Software (machine and monitor)
- Maintenance Free Battery
- Warning Horn
- 12 Volt Power Socket
- Boom Light, Halogen
- Pattern Changer

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

- Mirrors Left and Right

ELECTRICAL

- Product Link™
- LED Front Lights
- LED Front and Rear Lights
- LED Boom Light
- Battery Disconnect

OTHER

- Attachments including Buckets, Augers and Hammers
- Travel Alarm (standard in some regions)
- Water Jacket Heater
- Eco Drain
- Guard, Canopy
- Guard, Mesh
- Quick Coupler Lines
- Thumb Bracket (standard in some regions)
- Secondary Auxiliaries
- Bio Oil Capable
- No Travel Pedals and Levers
- Boom Lowering Check Valve
- Stick Lowering Check Valve

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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