<table>
<thead>
<tr>
<th>Cat® 3013 Naturally Aspirated Diesel Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flywheel Power</strong></td>
</tr>
<tr>
<td>19 kW</td>
</tr>
<tr>
<td>25 hp</td>
</tr>
<tr>
<td><strong>Operating Weight:</strong></td>
</tr>
<tr>
<td>With cab</td>
</tr>
<tr>
<td>3550 kg</td>
</tr>
<tr>
<td>7810 lb</td>
</tr>
<tr>
<td>With canopy</td>
</tr>
<tr>
<td>3430 kg</td>
</tr>
<tr>
<td>7546 lb</td>
</tr>
</tbody>
</table>
**303.5 Mini Hydraulic Excavator**

*Designed, built and backed by Caterpillar to deliver exceptional performance and versatility, ease of operation, serviceability and customer support.*

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**Performance and Versatility**

A wide range of work tools gives the 303.5 Mini Hydraulic Excavator versatility in applications such as building construction, landscaping and demolition. Both standard and long sticks are available. Auxiliary hydraulic lines can be installed at the factory or in the field. The control pedal, auxiliary valve and lines up to the swing post are standard. The blade has a float function, allowing the 303.5 to more efficiently perform cleanup operations, particularly on finished surfaces. The two-speed hydrostatic power train provides fast travel speeds between work areas.

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**Ease of Operation**

Equipped with cab or canopy, the 303.5 provides an excellent view to the work area. The optional cab is easy to enter and is equipped with many convenience features. Low effort controls are ergonomically designed for maximum operator comfort. **pg. 4**

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**Serviceability**

Tilt-up hood gives access to all major components and service points, making daily maintenance easy. The front linkage has low maintenance pivot joints, which require less time for routine maintenance, and all grease fittings can be easily reached. The S•O•S oil sampling valve provides easy sampling of hydraulic oil for preventive maintenance. **pg. 5**

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**Built for tough work**

The 303.5 Mini Hydraulic Excavator is built to the same high standards as larger Caterpillar® excavators. Stylish design, high quality finish and impact resistant non-metallic corner protectors help maintain the machine’s high value.
Customer Support
Caterpillar dealers offer unmatched customer support with excellent equipment management services and fast parts availability, resulting in maximum uptime and minimum repair costs. Equipment maintenance and management services help optimize performance, reliability and profit. pg. 5

Work Tools
*Caterpillar buckets and hydraulic powered tools, matched to fit the 303.5 Mini Hydraulic Excavator.*

Work Tools
Caterpillar designed work tools extend the versatility of the 303.5 Mini Hydraulic Excavator. Built for performance and durability, the full range of mini hydraulic excavator work tools delivers high productivity, long service life and excellent value.

- Digging Buckets
- Ditch Cleaning Buckets
- Hydraulic Hammers
- Augers
- Shears
- Crusher

Mechanical Quick Coupler
This feature allows the operator to make fast, easy work tool changes. The Caterpillar Quick Coupler maximizes performance while allowing use of standard buckets and work tools.
Excellent viewing to the work tool is possible with large windows and offset swing post. The curved hood and large rear glass give superior viewing to the rear. The easy-to-open front window, removable lower-front window and sliding right-side window offer excellent ventilation.

Low effort pilot hydraulics and ergonomically designed controls minimize fatigue and maximize comfort for the operator. There is a control pattern changer available as an option. The automatic swing lock helps ensure that the superstructure is held in a secure position while transporting the machine.

Straight line travel is provided to help maintain a straight course while tracking and operating the front linkage simultaneously. The console serves as a hydraulic system lockout when raised, preventing use of all hydraulic functions.

Operator's station is easy to enter and exit, and the flat floor is easy to clean. The spacious cab is equipped with many convenience features:
- Heater and defroster
- Interior light
- Mounting blocks for mirrors, lights and front guards
- Windshield wiper and washer

Other features in the cab and canopy include:
- Coat hook
- Gauges and indicators
- Storage space
- Suspension seat, vinyl or fabric covered
Serviceability
Quick access and superior design make the 303.5 Mini Hydraulic Excavator easy to maintain.

**Easy access** to major components and service points is provided by the large opening tilt-up engine enclosure.
- Air filter (filter blockage indicator on gauge panel)
- Engine oil check and fill
- Engine oil filter element
- Maintenance-free battery
- Radiator reservoir tank check and fill
- Vertically mounted, spin-on fuel filter/water separator element
- windshield washer tank

**Sight gauges** for hydraulic oil and fuel make fluid level checks convenient. Lockable tank cover uses the same key as all other locks.

**Low maintenance bushings** in front linkage pin joints and blade mechanism extend greasing intervals. All grease fittings are easy to access.

**S•O•S oil sampling valve** allows easy sampling of the hydraulic fluid for preventive maintenance.

**Cost effective replacement parts** are available through a service exchange program. Many parts are interchangeable with other Cat machines.

Customer Support
Complete services provided by the world’s largest dealer network.

**Unmatched dealer support** with excellent equipment management services and fast parts availability — most within 24 hours — provide maximum uptime and minimum repair costs.

**Equipment maintenance services** to help optimize machine performance and reliability. Services include:
- Customer Support Agreements
- S•O•S oil analysis
- Maintenance contracts
- Scheduled technical inspections

**Equipment management services** to help optimize profits. Services include:
- Machine and work tool selection
- Rental and leasing
- Purchasing and financing
- Owning and operating cost management
- Extended warranties

Note: For a complete explanation of these services please call your local Caterpillar dealer.
**Engine**

Caterpillar 3013 naturally aspirated, watercooled, 4-stroke, 3-cylinder diesel engine.

The following ratings apply at 2300 rpm when tested under the specific standard conditions for the specified standard:

<table>
<thead>
<tr>
<th>Engine Details</th>
<th>kW</th>
<th>hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross power: SAE J1995</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Net power: Caterpillar</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>ISO 9249</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>SAE J1349</td>
<td>19</td>
<td>25</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bore</td>
<td>84 mm 3.31&quot;</td>
</tr>
<tr>
<td>Stroke</td>
<td>90 mm 3.54&quot;</td>
</tr>
<tr>
<td>Displacement</td>
<td>1496 cm³ 91.3 in³</td>
</tr>
</tbody>
</table>

**Undercarriage**

- H-shaped, fabricated frame.
- Fabricated design gives high durability
- Tapered roller frame reduces accumulation of material in the tracks
- Track tension adjustment is accomplished through grease-filled cylinders
- Trackshoe width is 300 mm (12") for both standard rubber and optional steel shoes
- Ground clearance is 290 mm (11.4")
- Four bottom rollers and one carrier roller on each side

**Weights**

With rubber tracks, bucket, operator, full fuel and auxiliary lines.

(Weight varies depending on machine configuration).

- Cab: 3550 kg 7810 lb
- Canopy: 3430 kg 7546 lb

**Travel System**

- Travel speed:
  - High: 4.5 km/h 2.8 mph
  - Low: 2.6 km/h 1.6 mph
- Traction force (max.):
  - High: 17 kN 3825 lb
  - Low: 30 kN 6750 lb
- Gradeability (max.): 30°
  - Each track is driven by one independent two-speed motor
  - Drive modules are integrated into the roller frame for total protection
  - Straight line travel when tracking and operating the front linkage simultaneously

**Swing System**

- Hydraulic motor-driven.
  - Automatic swing brake, spring applied, hydraulic release
  - Centralized lubrication

- Machine swing speed: 9.3 rpm
- Boom swing system with cast swing post:
  - Left (without stop): 90°
  - Left (with stop): 55°
  - Right: 50°

**Electrical System**

- 12-volt system.
  - 55-amp alternator
  - 12-volt, 650 CCA, 52 amp/hr maintenance free battery
  - Sealed electrical connectors

**Service Refill Capacities**

<table>
<thead>
<tr>
<th>Component</th>
<th>liters</th>
<th>gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling system TAG</td>
<td>5.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Engine oil</td>
<td>5.7</td>
<td>1.5</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>55</td>
<td>14.3</td>
</tr>
<tr>
<td>Hydraulic tank</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>Hydraulic system</td>
<td>70</td>
<td>18.2</td>
</tr>
</tbody>
</table>

**Blade**

- Blade is full width of the machine.

  - Width: 1550 mm 61.0" |
  - Height of blade: 370 mm 14.6"
  - Dig depth: 350 mm 13.8"
  - Lift height: 420 mm 16.5"

**Sound Levels**

- Operator sound pressure level is 82 dbA for cab and 80 dbA for canopy equipped machines when measured per ISO 6396 (dynamic) or 95/27/EC.

**Hydraulic System**

- Auxiliary valve, lines to the swing post and foot pedal are standard
- Optional auxiliary hydraulic lines are available
- Secondary optional auxiliary line uses the bucket cylinder hydraulic circuit
- Boom, stick, bucket and machine swing are pilot-controlled

Pumps: two piston, one gear-type (max. delivery)

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piston</td>
<td>2 x 37.9 lpm 2 x 9.9 gpm</td>
</tr>
<tr>
<td>Gear</td>
<td>29 lpm 7.54 gpm</td>
</tr>
</tbody>
</table>

- Operating pressures:
  - Equipment: 206 bar 2987 psi
  - Travel: 206 bar 2987 psi
  - Swing: 172 bar 2494 psi
- Auxiliary circuit (max. delivery) 66.9 lpm at 206 bar 17.4 gpm at 2987 psi

**Digging forces:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stick (standard)</td>
<td>1870 kgf 4114 lb</td>
</tr>
<tr>
<td>Stick (long)</td>
<td>1400 kgf 3080 lb</td>
</tr>
<tr>
<td>Bucket</td>
<td>2610 kgf 5742 lb</td>
</tr>
</tbody>
</table>
**Dimensions**
(estimated)

A B C D* E* F G
Standard stick 2030 mm 5040 mm 3570 mm 3160 mm 2370 mm 5170 mm 5290 mm
6' 8" 16' 6" 11' 9" 10' 4" 7' 9" 17" 17' 4"
Long stick 2050 mm 5260 mm 3800 mm 3560 mm 2770 mm 5540 mm 5650 mm
6' 9" 17' 3" 12' 6" 11' 8" 9' 1" 18' 2" 18' 6"

* Dig depth with tracks level on the ground.

**Standard Equipment**
Standard equipment may vary. Consult your Caterpillar dealer for specifics.

- Alternator, 55-amp
- Automatic swing parking brake
- Auxiliary hydraulic circuit with valve, controls and lines to the swing post
- Boom cylinder guard
- Canopy with FOPS per ISO 10262
  - Level I and TOPS per ISO 12117
- Coat hook
- Dozer blade with float function
- Floor mat
- Gauges or indicators for fuel level, engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs
- Horn
- Hydraulic oil cooler
- Lockable tank cover
- Lockable storage box
- Low maintenance linkage pin joints
- Maintenance-free battery
- Rubber track, 300 mm (12 in)
- Seatbelt, 50 mm (2 in) wide
- Standard stick
- Suspension seat, vinyl covered
- Two-speed travel
- Wrist rests

**Optional Equipment**
Optional equipment may vary. Consult your Caterpillar dealer for specifics.

- Auxiliary hydraulic lines, front linkage
- Biodegradable hydraulic oil
- Boom check valve
- Cab, fully glazed with FOPS per ISO 10262 Level 1, TOPS per ISO 12117, heater/defroster, interior light and windshield wiper/washer
- Control pattern changer
- Ecology drain valve for hydraulic tank
- Foot travel pedals
- Front screen for cab and canopy
- Lights, cab mounted and boom mounted
- Long stick
- Mechanical Quick Coupler
- Mirrors, for cab or canopy
- Radio installation kit
- Seatbelt, 75 mm (3 in) wide
- Steel tracks
- Suspension seat, fabric covered
- Tool kit
- Travel alarm
- Work tools

**Track and blade width** 1550 mm 61.1"

**Gauge width** 1250 mm 49.2"

**Shoe width** 300 mm 11.8"