

303.5

Mini Hydraulic
Excavator



Cat® 3013 Naturally Aspirated Diesel Engine

Flywheel Power	19 kW	25 hp
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Operating Weight:

With cab	3550 kg	7810 lb
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With canopy	3430 kg	7546 lb
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303.5 Mini Hydraulic Excavator

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

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.

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**

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**

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.



Work Tools

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

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**

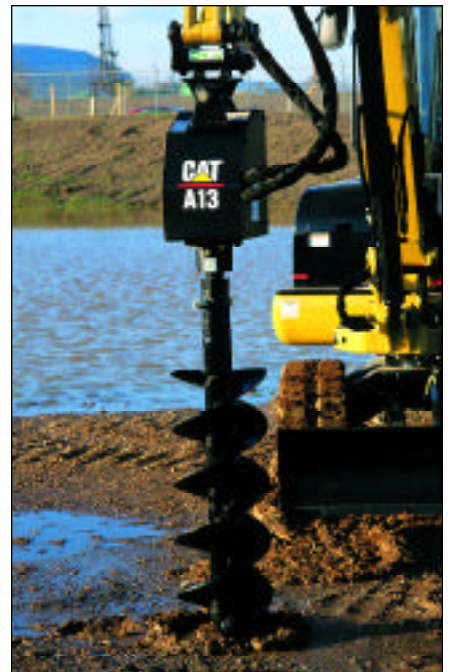
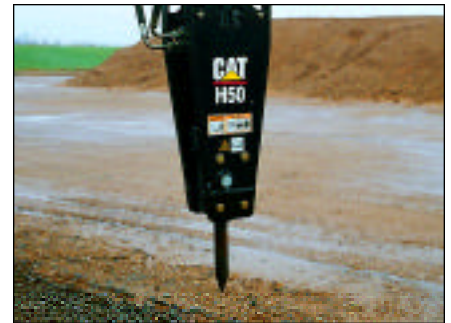
Work Tools

Caterpillar 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.



Operator's Station

Comfortable, world class cab and unmatched ease of operation.



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:

Gross power	kW	hp
SAE J1995	20	27
Net power	kW	hp
Caterpillar	19	25
ISO 9249	19	25
SAE J1349	19	25

Dimensions

Bore	84 mm	3.31"
Stroke	90 mm	3.54"
Displacement	1496 cm ³	91.3 in ³

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

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.

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

Electrical System

12-volt system.

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

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)

Piston	2 x 37.9 lpm	2 x 9.9 gpm
Gear	29 lpm	7.54 gpm

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:

Stick (standard)	1870 kgf	4114 lb
Stick (long)	1400 kgf	3080 lb
Bucket	2610 kgf	5742 lb

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°

Service Refill Capacities

	liters	gallons
Cooling system TAG	5.1	1.3
Engine oil	5.7	1.5
Fuel tank	55	14.3
Hydraulic tank	46	12
Hydraulic system	70	18.2

Blade

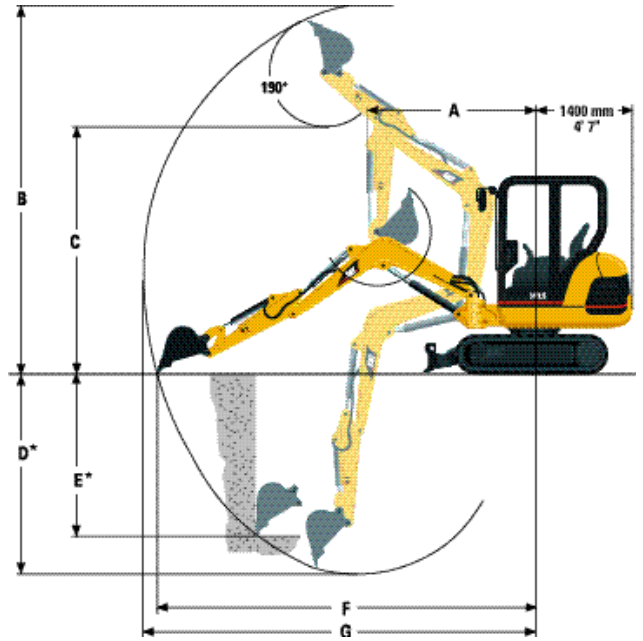
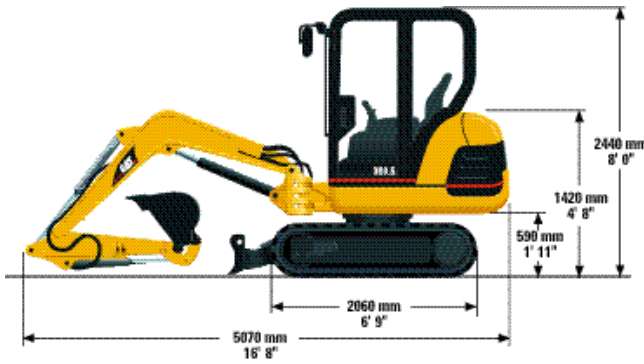
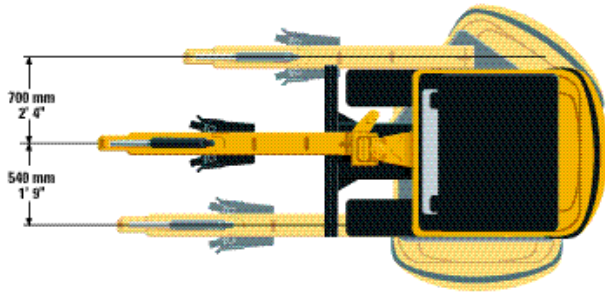
Blade is full width of the machine.

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

Dimensions

(approximate)

Track and blade width	1550 mm	61.1"
Gauge width	1250 mm	49.2"
Shoe width	300 mm	11.8"



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

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Materials and specifications are subject to change without notice.
Featured machines in photos may include additional equipment.
See your Caterpillar dealer for available options.

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