

302.5

Mini Hydraulic
Excavator



Cat® 3013 Naturally Aspirated Diesel Engine

Flywheel Power	17.1 kW	22.9 hp
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Operating Weight

With canopy	2660 kg	5864 lb
With cab	2783 kg	6135 lb

302.5 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 302.5 Mini Hydraulic Excavator versatility in applications such as building construction, landscaping and demolition. Both standard and long sticks are available. The blade has a float function, allowing the 302.5 to more efficiently perform clean up 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 302.5 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 S•O•SSM oil sampling valve provides easy sampling of hydraulic oil for preventative maintenance. **pg. 5**

Built for tough work

The 302.5 Mini Hydraulic Excavator is built to the same high standards as larger Caterpillar excavators. Stylish design, high quality finish, impact resistant non-metallic corners and built-in hydraulic lines protect from damage and help maintain the machine's high value.



Work Tools

Caterpillar buckets and hydraulic powered tools, matched to fit the 302.5 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 302.5 Mini Hydraulic Excavator. Built for performance and durability, the full range of mini hydraulic excavator work tools deliver high productivity, long service life and excellent value.

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

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 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 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 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
- Optional suspension seat, vinyl or fabric covered

Serviceability

Quick access and superior design make the 302.5 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
- Radiator reservoir tank check and fill
- Vertically mounted, spin-on fuel filter/water separator element
- Windshield washer tank

Maintenance free battery

S•O•SSM oil sampling valve allows easy sampling of the hydraulic fluid for preventative maintenance.



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.

Ratings at 2300 rpm	kW	hp
Gross power	18.0	24.1

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

Net power		
ISO 9249	17.1	22.9
EEC 80/1269	17.1	22.9

Dimensions

Bore	84 mm	3.3 in
Stroke	90 mm	3.5 in
Displacement	1496 cm ³	91 in ³

Sound Levels

Operator sound pressure level is 83 dB(A) for cab and 82 dB(A) for canopy builds 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
- Track shoe width is 300 mm (11.8 in) for both standard rubber and optional steel shoes
- Ground clearance is 310 mm (12.2 in)

Hydraulic System

- Auxiliary lines for hammer operation are standard
- Optional two-way auxiliary lines for work tools such as augers and angling ditch bucket
- 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 × 33.3 lpm	8.8 gpm
Gear	19 lpm	5.0 gpm

Operating pressures

Equipment	20 600 kPa	2988 psi
Travel	20 600 kPa	2988 psi
Swing	17 200 kPa	2495 psi

Auxiliary circuit

(max. delivery) 52 lpm at 17 200 kPa
13.7 gpm at 2495 psi

Digging forces (at cutting edge)

Stick	13.9 kN	3124.8 lb-ft
(standard)		
Stick (long)	11.9 kN	2675.2 lb-ft
Bucket	22.0 kN	4945.8 lb-ft

Electrical System

12-volt system.

- 55-amp alternator
- 12-volt, 560 CCA, 53 amp/h maintenance free battery
- Sealed electrical connectors

Service Refill Capacities

	Liters	Gallons
Cooling system TAG	4.2	1.1
Engine oil	5.7	1.5
Fuel tank	41.5	11.0
Hydraulic tank	36	9.5
Hydraulic system	50	13.2

Swing System

Hydraulic motor-driven.

- Automatic swing brake, spring applied, hydraulic release
- Centralized lubrication

Machine swing speed 9.0 rpm

Boom swing system with cast swing post

Left (without stop)	90°
Left (with stop)	55°
Right	50°

Blade

Blade is full width of the machine.

Width	1450 mm	57.0 in
Height of blade	350 mm	13.8 in
Dig depth	290 mm	11.4 in
Lift height	320 mm	12.6 in

Weights*

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

Canopy	2660 kg	5864 lb
Cab	2783 kg	6135 lb

* Weight varies depending on machine configuration.

Travel System

Travel speed

High	4.5 km/h	2.8 mph
Low	2.5 km/h	1.6 mph

Traction force (max.)

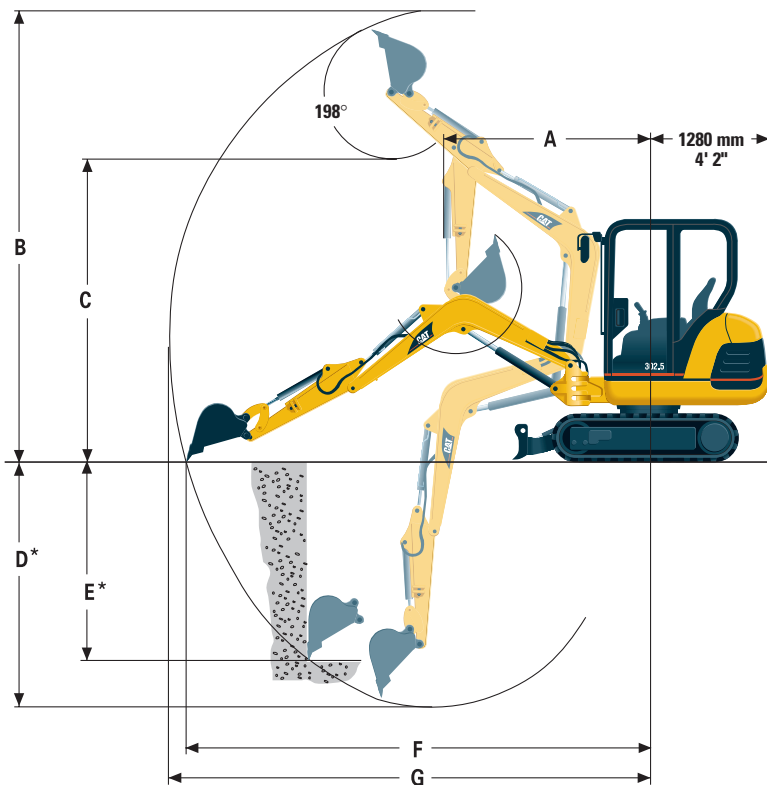
High	11 kN	2473 lb-ft
Low	22 kN	4946 lb-ft

Gradeability (max.) 30°

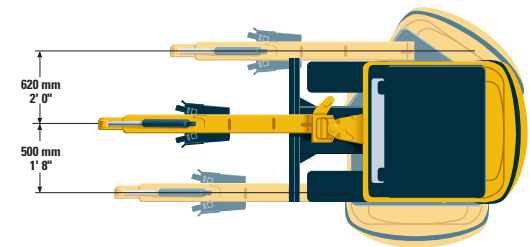
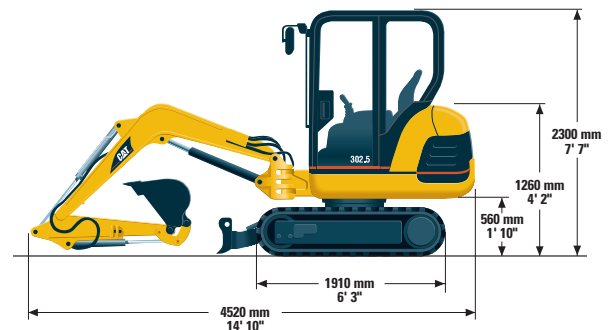
- Each track is driven by one independent 2-speed motor
- Drive modules are integrated into the roller frame for total protection
- Straight line travel when tracking and operating the front linkage simultaneously

Dimensions

(approximate)



Track and blade width	1450 mm	4' 9"
Gauge width	1150 mm	3' 9"
Shoe width	300 mm	1' 0"



	A	B	C	D*	E*	F	G
Standard stick (mm)	1895	4380	3100	2650	1970	4560	4670
(ft/in)	6' 3"	14' 4"	10' 2"	8' 8"	6' 6"	15' 0"	15' 4"
Long stick (mm)	1910	4520	3250	2950	2250	4830	4930
(ft/in)	6' 4"	14' 10"	10' 8"	9' 8"	7' 5"	15' 10"	16' 2"

* With tracks level on the ground.

Standard Equipment

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

Alternator, 55-amp	Gauges or indicators for fuel level, engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs
Automatic swing parking brake	Horn
Auxiliary lines (one-way) for hammer operation	Hydraulic oil cooler
Boom cylinder guard	Lockable storage box
Canopy with FOPS per ISO 10262 Level I and TOPS per ISO 12117	Lockable tank cover
Coat hook	Maintenance-free battery
Control pattern changer	Rubber tracks, 300 mm (1 ft)
Dozer blade	Seatbelt, 50 mm (2 in) wide
(Including float function)	Standard stick
Floor mat	Travel alarm
	Two-speed travel
	Wrist rests

Optional Equipment

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

Auxiliary lines, two-way (e.g. auger)	Long Stick
Boom check valve	Mechanical Quick Coupler
Cab, fully glazed with FOPS per ISO 10262 Level I, TOPS per ISO 12117, heater/defroster, interior light, and windshield wiper/washer	Mirrors, for cab or canopy
Foot travel pedals	Radio installation kit
FOPS per ISO 10262 Level II	Seatbelt, 75 mm (3 in) wide
Front screen for cab and canopy	Secondary auxiliary (e.g. clamshell bucket)
Lights, cab mounted and boom mounted	Steel tracks, 300 mm (1 ft)
	Stick check valve
	Suspension seat, vinyl or fabric
	Thumb-ready sticks
	Tool kit

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AEHQ5586 (4-04)

Replaces AEHQ5364-01

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