

302.5C

Mini Hydraulic Excavator



Naturally Aspirated Diesel Engine

Net Power (ISO 9249) at 2300 rpm

18.6 kW/25.3 hp

Operating Weight

With canopy

2745 kg

With cab

2850 kg

Caterpillar® 302.5C Mini Hydraulic Excavator

Designed to deliver reliable performance, versatility and ease of operation.

Performance and Versatility

High digging forces and fast cycle times, ensure that the Cat® C-Series machines deliver the productivity that customers demand.

Auxiliary lines and connectors fitted as standard, mean that the Cat 302.5C comes 'ready to work', enabling both one-way (hammer) and two-way (auger) tool operation.

The dozer blade float function enables more efficient clean up and landscaping operations.

Choice of standard or long stick enables matching of machine to application.

High rotation bucket angle combines good spoil retention and flat back trench characteristics.

Long reach dozer blade assists effective site clean up.

Engineered Durability

The heavy-duty bodywork and clean lines of the Caterpillar 302.5C ensure long life and reduce maintenance cost in tough, demanding applications.

Comfort and Ease of Operation

Cab and canopy options are available. The C-Series cab provides a very spacious and comfortable work area with a high feature level as standard.

Impressive legroom, air circulation and well positioned, low effort controls give even greater operator comfort.

Clear, flat floor offers easy cleaning and maximizes foot space.

Suspension seat as standard.

Lever mounted auxiliary and boom swing controls.

Automatically applied swing lock aids machine transportation.

Optional air conditioning, or fan and sun blind packages offer further comfort features.



Low Operating Costs

Robust, reliable and easily serviced, are key attributes of the C-Series design.

Protected front linkage lines are routed out of harms way, above the boom and stick.

A tough counterweight and extra thick side panels protect against impact damage.

Large rear doors enable excellent serviceability, whilst low maintenance front linkage pivot joints and well placed grease points reduce time taken for daily checks.

The Cat S•O•S points assist easy oil sampling for preventative maintenance checks.

500 hour engine oil change period helps to keep operating costs down.

Main implement valve located beneath hinged side cover for easy access.

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.



Operator Station

Class leading space and high feature levels lead to a comfortable and productive environment.

The large, spacious cab of the Caterpillar C-Series offers excellent all round visibility and flat glass throughout for easy and inexpensive replacement.

Superior operator legroom, with a clear flat floor and a wide door opening, offers even greater comfort and ease of use.

'Eye line' instrumentation provides the operator with a clear view of the machines monitoring system, ensuring fuel level, water temperature, and warning lights are easily seen. A service interval indicator is also included.

Dozer lever mounted two speed travel control provides easy operation and increased foot room.

Dozer float enables easy ground levelling for landscaping or finishing.

Adjustable wrist supports increase operator comfort and reduce fatigue.

Lever mounted auxiliary and boom swing control enhance machine controllability and increases operator foot room.

Automatically applied swing park brake which aids machine transportation.



Work Tools

Caterpillar's range of buckets and hydraulically powered tools, matched to optimize machine performance.

Caterpillar offers a wide range of work tools to increase the machines versatility even further. These tools are designed to get the best out of the machine and deliver excellent value through high productivity and long life.

Tools on offer include:

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

Mechanical Quick Coupler.

The Caterpillar Quick Coupler makes tool changes fast and easy. Maximizing performance and compatible with all standard work tools.



Serviceability

Designed to keep 'down-time' to a minimum, with easy access and convenient locations for all daily checks.

Large 'swing out' rear doors allow access to major components and service points within the engine enclosure.

- Air filter
- Engine oil check and fill
- Engine oil filter element
- Radiator reservoir tank, check and fill
- Vertically mounted, spin-on fuel filter/water separator
- Windshield washer tank

Access to implement valve and hydraulic tank is via a lift up side cover

A sight gauge for hydraulic oil makes fluid level checks convenient.

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

500 hour oil and filter change period reduces operating costs and machine down time.

Clean side front linkage with concealed hosing reduces damage and machine down time.



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

For a complete explanation of these services please call your local Caterpillar dealer.



Engine

Mitsubishi S3L2 naturally aspirated, watercooled, 4 stroke, 3 cylinder diesel engine.

Ratings at 2300 rpm

Gross power	19.9 kW	27.1 hp
Net power	18.6 kW	25.3 hp

Dimensions

Bore	78 mm
Stroke	92 mm
Displacement	1318 cm ³

- All engine horsepower (hp) are metric including front page.
- Net power rating per ISO 9249 and EEC 80/1269
- Meets EU Stage II emission requirements

Sound Levels

Operator sound pressure level is 81 dB(A) for cab and 81 dB(A) for canopy builds when measured per ISO 6396 (dynamic).

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 for both standard rubber and optional steel shoes
- Ground clearance is 265 mm

Hydraulic System

Pumps/Pressures/Circuits

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

Tandem	2 x 32.9 lpm
Single	1 x 19.5 lpm

Operating pressures

Equipment	221 bar
Travel	221 bar
Swing	174 bar

Auxiliary circuits

Primary	52.4 lpm at 174 bar
Secondary	19.5 lpm at 174 bar

Digging Forces

Stick, standard	15.3 kN
Stick, long	13.1 kN
Bucket	25.0 kN

- One and two-way auxiliary lines for work tools such as hammers, augers and Tilt ditch bucket are standard

Electrical System

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

Blade

Blade is full width of the machine.

Width	1450 mm
Height of blade	320 mm
Dig depth	420 mm
Lift height	285 mm

- Blade flotation function provides easier operation
- Replaceable, hardened, wear resistant cutting edge

Swing System

Machine swing speed	9.5 rpm
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Boom swing system with cast swing post

Left (without stop)	90°
Left (with stop)	54°
Right	48°

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

Service Refill Capacities

	Liters
Cooling system	4.5
Engine oil	6.4
Fuel tank	38
Hydraulic tank	36
Hydraulic system	50

Weights*

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

Canopy	2745 kg
Cab	2850 kg

* Weight varies depending on machine configuration.

Travel System

Travel speed	
High	5.0 km/h
Low	2.5 km/h

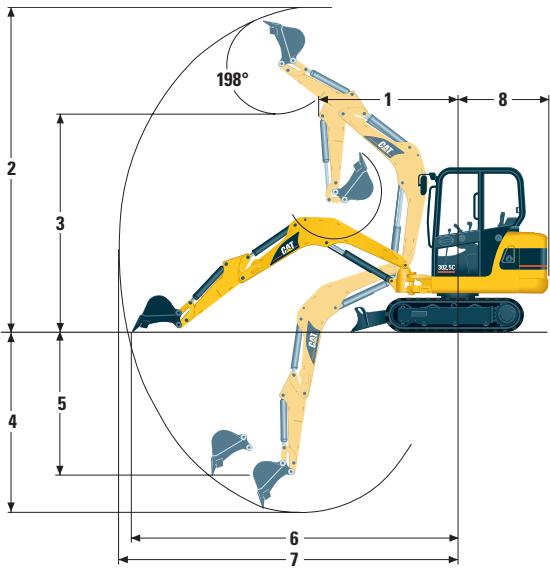
Traction force (max.)

High Speed	14.3 kN
Low Speed	23.6 kN

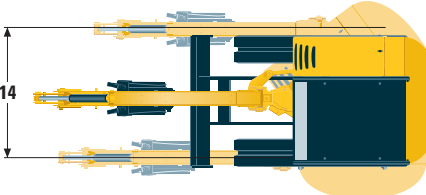
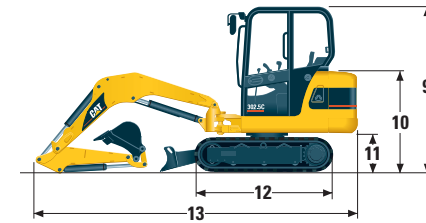
Gradeability (max.)	30°
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- Each track is driven by one independent 2-speed motor
- Drive modules are integrated into the roller frame for total protection
- Straight line travel when tracking and operating the front linkage simultaneously

Dimensions and Lift Capacities



Track and blade width	1450 mm
Gauge width	1150 mm
Shoe width	300 mm



	Standard Stick mm	Long mm
1	1875	1890
2	4355	4530
3	3110	3280
4	2640	2930
5	1920	2180
6	4545	4810
7	4670	4930
8	1280	1280
9	2300	2300
10	1405	1405
11	545	545
12	1925	1925
13	4515	4515
14	1110	1110

With tracks level on the ground

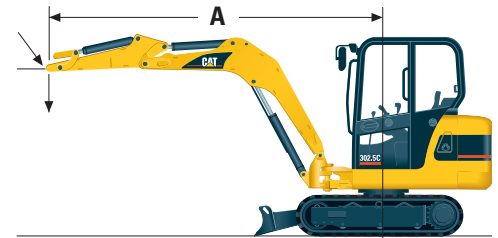
Lift Capacities at Ground Level

	Over front	Over side	Over front	Over side
A Lift Point Radius (mm)	2500		3500	
Blade down (kg)	*1285	1090	*816	671
Blade up (kg)	791	635	499	413

* Limited by hydraulic capacity rather than tipping load.

The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard SAE J1097 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

The excavator bucket weight is not included on this chart. Lifting capacities for standard stick.



Standard Equipment

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

- Adjustable wrist rests
- Alternator
- Automatic swing parking brake
- Auxiliary lines circuit valve, controls, 'one way' (hammer) and 'two way' (auger) auxiliary lines to the stick
- Auxiliary line quick couplers
- Boom cylinder guard
- Cab mounted work light
- Canopy with FOPS per ISO 10262 (Level I) and TOPS per ISO 12117
- Coat hook and cup holder
- 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, service interval
- Horn
- Hydraulic oil cooler
- Joystick mounted aux. control switch
- Joystick mounted boom swing control
- Lockable storage box
- Lockable tank cover
- Low maintenance linkage pin joints
- Maintenance-free battery
- Mobile phone holder and power point
- Rubber tracks, 300 mm
- Seatbelt, 50 mm
- Standard stick
- Suspension seat, vinyl covered
- Travel pedals
- Two-speed travel

Optional Equipment

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

- Air conditioning
- Biodegradable hydraulic oil
- Boom check valve
- Boom mounted light
- Cab, fully glazed with FOPS per ISO 10262 (Level I), TOPS per ISO 12117, heater/defroster, interior light, and windshield wiper/washer
- Control pattern changer
- Ecology drain valve for hydraulic tank
- Ecology drain valve for engine oil
- Fan and sun blind installation
- Front screen guard for cab and canopy
- Immobilizer system
- Joystick mounted proportional aux. control
- Long stick
- Mechanical quick coupler
- Mirrors, for cab and canopy
- Radio/CD player
- Radio installation kit
- Seatbelt, 75 mm
- Steel tracks, 300 mm
- Suspension seat, fabric covered
 - Standard
 - High back
- 'Thumb ready' sticks
- Tool kit
- Travel alarm
- Work tools

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HEHH3292 (06/2005) hr

Featured photos of machines may not always include standard equipment.
See your Caterpillar Dealer for available options.
Materials and specifications are subject to change without notice.

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