

301.6C 301.8C

Mini Hydraulic Excavators



Engine

Rated net power (ISO9249)	13.5 kW	18.1 hp
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Weights

	301.6C		301.8C	
Operating weight with canopy	1610 kg	3,549 lb	1680 kg	3,704 lb
Operating weight with cab	1720 kg	3,792 lb	1785 kg	3,936 lb

- Weight calculated with bucket, operator, full fuel tank and auxiliary lines.
- Weight depends on machine configuration.

301.6C/301.8C Mini Hydraulic Excavators

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

Comfort and Ease of Operation

Cab or canopy, the 301.6C and 301.8C offer spacious and comfortable work areas with expansive legroom. Features like automatic swing lock, power socket, suspension seat, ergonomic controls and well-positioned air vents add to a productive work environment. **pg. 4**

Performance and Versatility

High dig forces, fast cycle times and high bucket rotation angles deliver the productivity that customers demand. A choice of stick lengths, Cat® Work Tools and dozer float function make the 301.6C and 301.8C Mini Hydraulic Excavators even more versatile. **pg. 5**

Low Operating Costs

Protected front linkage lines, extra thick side panels and protective counterweight help reduce impact damage and costly repairs. Service points are easily accessed through a large, rear door and a 500-hour engine oil change period lowers operating costs. **pg. 6**

Engineered Durability –

The heavy-duty structures and clean lines of the Cat 301.6C and 301.8C ensure long life and reduce maintenance costs in tough, demanding applications.



Customer Support

Cat dealers offer unmatched customer support with excellent equipment management services, equipment maintenance and fast parts availability, resulting in optimized performance, reliability and profit. **pg. 7**



Comfort and Ease of Operation

The spacious cab and easy operating controls are designed for comfort and productivity.



Operator Station. The large, spacious cab offers superior leg room, air circulation and an expansive viewing area with flat glass throughout for easy and inexpensive replacement.

Suspension Seat and Wrist Supports.

A suspension seat is standard and coupled with adjustable wrist supports, help increase operator comfort and reduce fatigue.



Low Effort Controls. Ergonomic, low effort controls offer greater operator comfort for increased productivity. Dozer lever mounted, two-speed travel control provides easy operation and increases foot room.

Line of Sight Instrumentation.

The operator has a clear view of the machine's monitoring system, ensuring fuel level, water temperature and warning lights are easily seen.

Optional Fan and Sun Visor.

Operator comfort can be further enhanced with the optional fan and sun visor package.

Performance and Versatility

A wide range of buckets and hydraulically powered work tools optimize machine performance.

Digging Forces and Cycle Times.

High digging forces and fast cycle times ensure that the Cat C-Series Mini Excavators deliver the productivity that customers demand.

Stick Options. A choice of standard or long stick enables matching of machine to application.



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

Dozer Blade Float Function. The dozer float enables easy ground leveling for landscaping and finishing applications, as well as more efficient clean-up.



Work Tools. Caterpillar® offers a wide range of work tools to increase the machine's versatility. The work tools are designed to optimize performance and deliver excellent value through high productivity and long life.

Work tools include:

- Augers
- Buckets – digging, ditch cleaning, tilt ditch
- Hydraulic hammers
- Vibratory compactors



Auxiliary Lines and Connectors.

The auxiliary lines and connectors are fitted as standard, meaning the Cat 301.6C and 301.8C come ready to work. Hammer (one-way) auxiliary lines are also fitted as standard.



Mechanical Quick Coupler. The Cat Quick Coupler makes frequent tool changes fast and easy. Compatible with all Cat Mini Hydraulic Work Tools, it features a strong, lightweight, low profile design with no debris traps for years of secure work tool changes.

Low Operating Costs

Downtime is kept to a minimum with easy access to convenient daily check points.



Front Linkage. Protected front linkage lines are routed above the boom and stick to help reduce damage and downtime.



Service Access. A large, swing-out rear door allows access to major components and service points within the engine enclosure, including:

- 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 fluid tank

Sight Gauge. A hydraulic oil sight gauge makes fluid level checks fast and easy.

S-O-SSM Valve. The S-O-S oil sampling valve allows easy sampling of hydraulic fluid for preventive maintenance.

500-Hour Oil Change. The 500-hour oil and filter change period helps keep operating costs down.

Automatic Engine Idle. Automatically lowers engine revs when not in use to conserve fuel and lower environmental noise/emissions.

Customer Support

Industry-leading customer support provided by the Cat dealer network.

Selection. Make detailed comparisons before you buy. Your Cat dealer can give you precise answers to your questions.

Purchase. Consider all the flexible financing options your Cat dealer offers, as well as day-to-day operating costs. Your dealer can provide a financing package to meet your needs.

Operation. Improving operating techniques can boost your profits. Your Cat dealer has training literature, classes and other ideas to help increase your productivity.

Equipment Maintenance Services. Services that help optimize machine performance include:

- Customer Support Agreements
- S-O-SSM and Coolant Sampling and Technical Analysis
- Maintenance contracts
- Scheduled technical inspections

Unmatched Product Support. Nearly all parts are found at our dealer parts counter. A world-wide computer network finds in-stock parts and usually delivers within 24 hours to minimize machine downtime. Additionally, Caterpillar offers a line of genuine remanufactured components which can help lower repair costs.

SAFETY.CAT.COM™.



Engine

Model	Mitsubishi L3E NA Diesel	
Rated net power (ISO 9249)	13.5 kW	18.1 hp
Gross power	14 kW	19 hp

- Meets U.S. EPA Interim Tier 4 emissions requirements.

Engine Dimensions

Bore	76 mm	3.0 in
Stroke	70 mm	2.8 in
Displacement	0.95 L	58.1 in ³

Weights

	301.6C		301.8C	
Operating weight with canopy	1610 kg	3,549 lb	1680 kg	3,704 lb
Operating weight with cab	1720 kg	3,792 lb	1785 kg	3,936 lb

- Weight calculated with bucket, operator, full fuel tank and auxiliary lines.
- Weight depends on machine configuration.

Travel System

Travel speed – high	4.5 km/h	2.8 mph
Travel speed – low	2 km/h	1.24 mph
Max traction force – high speed	7 kN	1,574 lbf
Max traction force – low speed	15 kN	3,372 lbf
Gradeability (max)	30°	

Hydraulic System

Pump – gear (tandem)	19.8 L/min	5.23 gal/min
Pump – gear (single)	14.6 L/min	3.86 gal/min
Operating pressures – equipment	206 bar	2,988 psi
Operating pressure – travel	206 bar	2,988 psi
Operating pressure – swing	174 bar	2,524 psi
Auxiliary circuits – Primary (174 bar/2,524 psi)	34.4 L/min	9.09 gal/min
Auxiliary circuits – Secondary (174 bar/2,524 psi)	14.6 L/min	3.86 gal/min
Digging force – Stick, standard	9.9 kN	2,226 lbf
Digging force – Stick, long	8.8 kN	1,978 lbf
Digging force – Bucket	15.4 kN	3,462 lbf

Swing System

Machine swing speed	10.5 rpm
Boom swing – left (without stop)	90°
Boom swing – left (with stop)	54°
Boom swing – right	50°

Sound Levels

Canopy	83 dB(A)
Cab	83 dB(A)

- Operator sound pressure levels measured per ISO 6396 (dynamic).

Electrical System

Type	12-volt system, 500 CCA, 35 amp/h maintenance free battery
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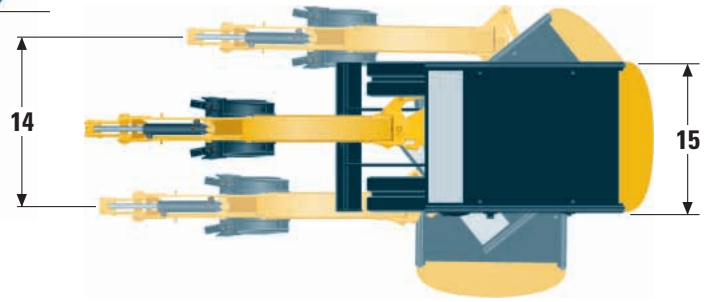
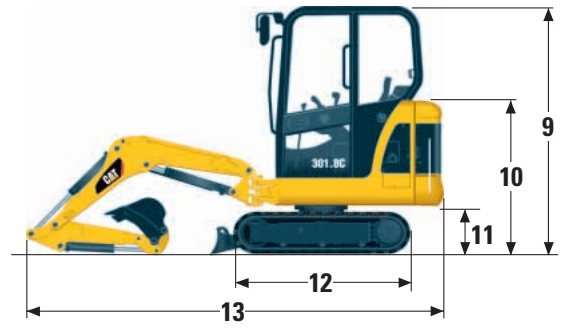
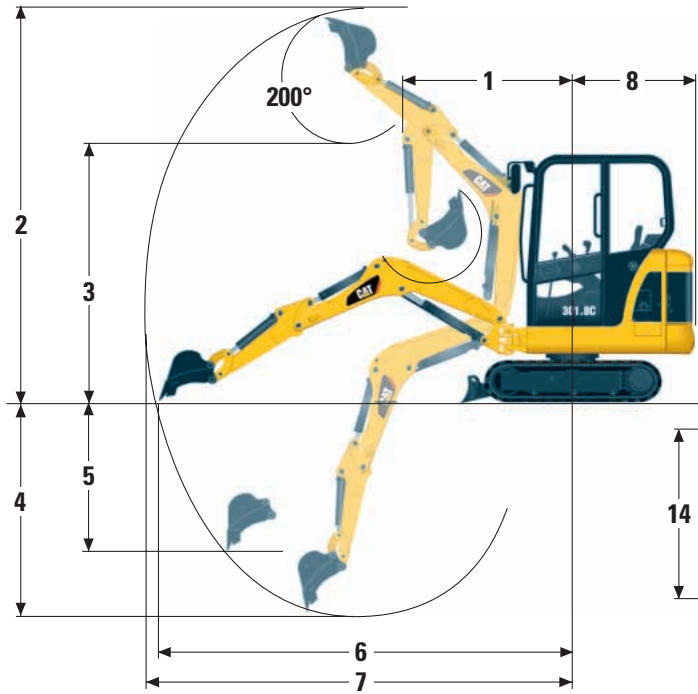
Blade

	301.6C		301.8C	
Width – Standard	980 mm	38.6 in	980 mm	38.6 in
Width – Extended			1340 mm	52.8 in
Height	225 mm	8.9 in	255 mm	10.0 in
Dig depth	230 mm	9.1 in	250 mm	9.8 in
Lift height	180 mm	7.1 in	195 mm	7.7 in

Service Refill Capacities

Cooling system	4 L	1.06 gal
Engine oil	4.1 L	1.08 gal
Fuel tank	22 L	5.8 gal
Hydraulic tank	24 L	6.3 gal
Hydraulic system	37 L	9.8 gal

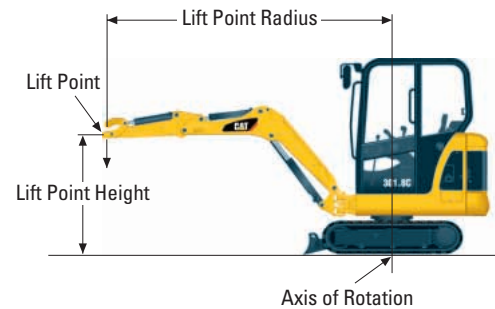
Dimensions and Lift Capacities



	Standard Stick		Long Stick	
1	1550 mm	5'1"	1560 mm	5'1"
2	3350 mm	11'	3460 mm	11'4"
3	2360 mm	7'9"	2480 mm	8'2"
4	2080 mm	6'10"	2320 mm	7'7"
5	1620 mm	5'4"	1810 mm	5'11"
6	3610 mm	11'10"	3800 mm	12'6"
7	3700 mm	12'2"	3890 mm	12'9"
8	1090 mm	3'7"	1090 mm	3'7"
9	2190 mm	7'2"	2190 mm	7'2"
10	1365 mm	4'6"	1365 mm	4'6"
11	435 mm	1'5"	435 mm	1'5"
12	1575 mm	5'2"	1575 mm	5'2"
13	3695 mm	12'1"	3695 mm	12'1"
14	975 mm	3'2"	975 mm	3'2"
15	980 mm	3'3"	980 mm	3'3"

	Standard Undercarriage	301.8C Extended Undercarriage
Track and blade width	980 mm 3'3"	1340 mm 4'5"
Gauge width	750 mm 2'6"	1110 mm 3'8"
Shoe width	230 mm 9"	230 mm 9"

With tracks level on the ground.



Lift Capacities at Ground Level	Over Front		Over Side		Over Front		Over Side	
	2000 mm	6'7"	2000 mm	6'7"	3000 mm	9'10"	3000 mm	9'10"
Standard track								
Blade down	787 kg*	1,735 lb*	362 kg	798 lb	450 kg*	992 lb*	219 kg	483 lb
Blade up	515 kg	1,135 lb	329 kg	725 lb	300 kg	661 lb	201 kg	443 lb
Extended track (301.8 only)								
Blade down	782 kg*	1,724 lb*	580 kg	1,278 lb	445 kg*	981 lb*	334 kg	736 lb
Blade up	524 kg	1,155 lb	536 kg	1,181 lb	303 kg	668 lb	311 kg	686 lb

* 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 do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

Excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

Standard Equipment

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

Alternator	Gauges or indicators for fuel level, engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs, service interval
Automatic engine idle	Horn
Automatic swing parking brake	Hydraulic oil cooler
Auxiliary hydraulic circuit valve, controls and on way (hammer) lines to the stick	Linkage pin joints, low maintenance
Auxiliary line to quick coupler	Mobile phone holder and power socket
Battery, maintenance-free	Rubber track, 230 mm (9 in) wide
Boom cylinder guard	Seat, suspension, vinyl covered
Canopy, FOPS ISO 10262 (Level I) and TOPS ISO 12117	Seatbelt, 50 mm (2 in)
Coat hook	Stick, standard
Control pattern changer	Storage box, lockable
Cup holder	Travel alarm
Dozer blade with float function	Travel pedals
Floor mat	Two-speed travel (dozer lever mounted)
	Work light, cab-mounted
	Wristrest, adjustable

Optional Equipment

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

Biodegradable hydraulic oil

Boom check valve

Cab – fully glazed with FOPS per ISO 10262 (Level I),

TOPS per ISO 12177, heater/defroster, interior light,
windshield wiper and washer

Ecology drain valve for hydraulic tank

Fan and sun visor installation

Front screen guard for cab and canopy

Immobilizer system

Mechanical quick coupler

Mirrors for cab and canopy

Radio/CD player

Radio installation kit

Seat, suspension, fabric covered

Seat, high back suspension, fabric covered

Seatbelt, 75 mm (3 in)

Stick, long

Tool kit

Two way (auger) auxiliary lines to the stick

Work tools

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AEHQ5673-02 (12-07)
Replaces AEHQ5673-01

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