

307D

Mini Hydraulic Excavator

CATERPILLAR®



Engine Power

Net power	40 kW/54 hp
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Gross power	43 kW/58 hp
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Weight

Operating weight	7075 kg
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307D Features

Comfortable Operator Station

Experience high levels of operator comfort with joystick mounted proportional control auxiliary functions, air conditioning and a spacious cab.

Performance

Greater performance levels delivered with high digging forces, faster speed of operation and load sensing hydraulics.

Versatility

Outstanding stability and industry leading lift capacity, plus a choice of work tools allows you to better match your requirements.

Work Tools

Wide selection of Cat Work Tools increase job site versatility.

Serviceability

Longer service intervals and easier maintenance result in lower owning and operating costs.



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The Cat 307D Mini Hydraulic Excavator offers industry leading lift capacity and machine stability, with no compromises. Durability is designed into the 307D making it robust and the ease of servicing maximises the machine's reliability. The protected front linkage lines make the operating costs lower for you.

Operator Station

Simple, easy operation allows the operator to focus on production.

A large, spacious cab provides operator comfort and improved visibility. An intuitive cab layout for ease of operation reduces operator fatigue. The 307D features:

- New cab layout emphasizes simplicity and ease of use. Right-hand consoles provide easy access to all switches, dials and controls.
- 12 V point receptacle for charging cell phones.
- A reclining suspension seat and adjustable wrist rests.
- Low effort joystick controls are designed to match the operator's natural wrist and arm positions. Consoles can be adjusted independently of the seat for maximum comfort.
- Overhead skylight improves visibility and can be opened to create air flow.
- Front windshield opens easily and stores in roof space above the operator with an automatic latching mechanism.
- All functions on the 307D are fully pilot operated lowering owning and operating costs, resulting in less down time.
- Air conditioning as an option.

Monitor Display

The LCD monitor is located to give a clear view of the machine's monitoring system, ensuring fuel level, coolant temperature and warning lights are easy to read and understand.



Performance and Control

Powerful digging combined with smooth responsive control.

High digging forces provide power through even the most compacted ground, coupled with direct, smooth control through responsive hydraulics ensuring that the Cat 307D delivers the high productivity that customers demand. Load sensing hydraulics optimise the flow of oil for smooth powerful performance and increased fuel economy.

Controllability

The new 307D front linkage has been perfectly balanced with the hydraulics to deliver the high level of control required for fine grading and landscaping applications.

- Automatic two speed function improves jobsite manoeuvrability by balancing high speed travel requirements and control.
- Joystick integrated auxiliary control enhances machine controllability. The intuitive controls give fine modulation.
- The levers and dozer function ensure that “as new” levels of controllability are maintained throughout the machine life.
- Auxiliary lines, including quick connectors are fitted as standard, meaning the Cat 307D comes ready to work.
- Dozer blade float function enables easy ground levelling for landscaping and finishing applications as well as more efficient site clean-up.
- Optional boom lowering check valve includes integral overload warning device.

Lift Capacity

The new Caterpillar 307D has high level lift capacity matched with outstanding stability all in a Compact Radius package to provide the on-site versatility required to match the increasingly diverse needs of the customer.

Stick

A choice of medium or long stick enables the customer to match the machine to the requirements.



Engine

Clean, quiet operation with superior power.

The new D Series Mini Hydraulic Excavators have a turbocharged engine providing increased power, fuel efficiency, altitude capability and overall performance while meeting EU Stage IIIA regulations.

Economy Mode

This standard feature allows the balance of performance and fuel economy while maintaining breakout forces and lift capacity. Operating in economy mode can help reduce your overall fuel consumption.

Electronic Control Module (ECM)

The ECM responds quickly to operating variables to maximize engine efficiency. Fully integrated with sensors in the engine's fuel, air, coolant and exhaust systems, the ECM stores and relays information on conditions such as rpm, fuel consumption and diagnostics.



Work Tools

Cat Work Tools are matched to meet your application needs.

A wide range of work tools are specifically designed to get the best out of the machine and deliver excellent value through high productivity and long life. Cat Work Tools include:

- Digging Buckets
- Heavy Duty Buckets
- Ditch cleaning buckets
- Tilting Ditch Cleaning Bucket
- Hydraulic hammers
- Augers
- Shears
- Compactors

To maximize performance, Caterpillar mechanical and hydraulic Quick Couplers are compatible with all standard work tools, enabling the operator to simply release one work tool and pick up another, maximizing productivity.

One-way flow (hammer) and two-way flow (auger) auxiliary lines with quick connectors are fitted as standard. This feature allows the machine to adapt to a wide variety of applications without re-configuring the auxiliary lines. Here versatility is further enhanced with the option of a second auxiliary circuit (for grapple rotation).



Undercarriage

Excellent stability.

Depending on the customers application, the Cat 307D has three different track options to choose from, allowing the correct machine configuration to suit the job.

Steel Tracks

Steel tracks are available with 450 or 600 mm triple grouser track shoes.

Segmented Rubber Shoes

This option of track prevents damage to concrete and other road surfaces ideal in urban applications.

Rubber Pads

The 450 mm wide shoe has four holes to attach the rubber pads to the steel track shoes. This option prevents damage to paved road surfaces and minimises noise and vibration during travel.

Blade Widths

Hydraulic Mini Excavator used for backfilling trenches, levelling, landscaping and site clean-up. There are two blade width options available to accommodate the difference in track widths.

Tie down points

Large oval tie down points are located on the blade and undercarriage for easy and safe machine tie down for transportation.



Serviceability

Easy access and minimal maintenance requirements keep your machine on the job.



Robust, reliable and easily serviced are the key attributes of Caterpillar Mini Hydraulic Excavators. Full steel body work panels provide durable protection against damage. All daily service points are easily accessed through the rear hood and side cover and a 500 hour engine oil change period lowers operating costs. The Cat S•O•S. points assist easy oil sampling for preventative maintenance checks.

Cat Product Link

The optional Product Link system simplifies equipment fleet tracking. Using satellite or cellular technology, the system automatically reports information such as location, machine hours, active and logged service codes and security alarms.

Cat Machine Security System

An optional Machine Security System (MSS) that utilizes a programmable key system that deters theft, vandalism and unauthorized usage. MSS uses electronically coded keys selected by the customer to limit usage by individuals or time parameters.

Customer Support

Unmatched support makes the difference

Your Cat dealer is ready to assist you with your purchase decision and everything after.

- Make comparisons of machines, with estimates of component life, preventative maintenance and cost of production.
- Financing packages are flexible to meet your needs.
- Your Cat dealer can evaluate the cost to repair, rebuild and replace your machine, so you can make the right choice.
- A worldwide computer network enables the dealer parts counter to locate nearly all parts.
- For more information on Cat products, dealer services and industry solutions, visit us at www.cat.com.



307D Specifications

Engine

Model	Mitsubishi 4M40-TL
Rated Net Power	40 kW/54 hp
Gross Power	43 kW/58 hp
Rated Speed	2000 rpm
Dimensions	
Bore	95 mm
Stroke	100 mm
Displacement	2.8 l

- All engine horsepower (hp) are metric including front page.
- Net power rating ISO 9249 and 80/1269/EEC
- Meets EU stage IIIA emission regulations

Weights

Operating weight with cab 7075 kg

- Weight with rubber tracks, bucket, operator (80 kg), full fuel and auxiliary lines.
- Weight varies depending on machine configuration

Swing System

Swing Speed	10 rpm
Bucket Rotation Angle	179°
• Automatic swing brake, spring applied, hydraulic release	
• Centralized lubrication	

Travel System

Travel speed	
high	5.0 km/h
low	3.1 km/h
Tractive effort	57 kN
Gradeability	35°
Ground pressure	0.36 bar

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

Service Refill Capacities

	liter
Fuel tank	135
Cooling system	16
Engine crankcase	13
Hydraulic tank	80
Hydraulic system	94

Hydraulic System

Operating pressure	
Implements	280 bar
Travel	320 bar
Swing	244 bar
Auxiliary circuit	
Primary	128 l/min
Secondary	64 l/min
Digging force	
Stick	36 kN
Bucket	49 kN
Hydraulic pump	
Piston	150 l/min
Pilot	19 l/min
Variable displacement	77 l/min

Sound Levels

Operator Sound

- The operator sound pressure level measured according to the procedures specified in ISO 6396:1992 is 79 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.

Exterior Sound*

- The European Union 2000/14/EC labeled exterior sound power level is 98 dB(A) for the machines certified to that requirement.

* The exterior sound power level for the high ambient temperature cooling package equipped non-European Union configured machine when measured according to the procedures specified in ISO 6395:1988 is 100 dB(A).

Electrical System

- 35 A alternator
- 24 V system with two 12 V, 750 CCA maintenance-free batteries
- Sealed electrical connectors

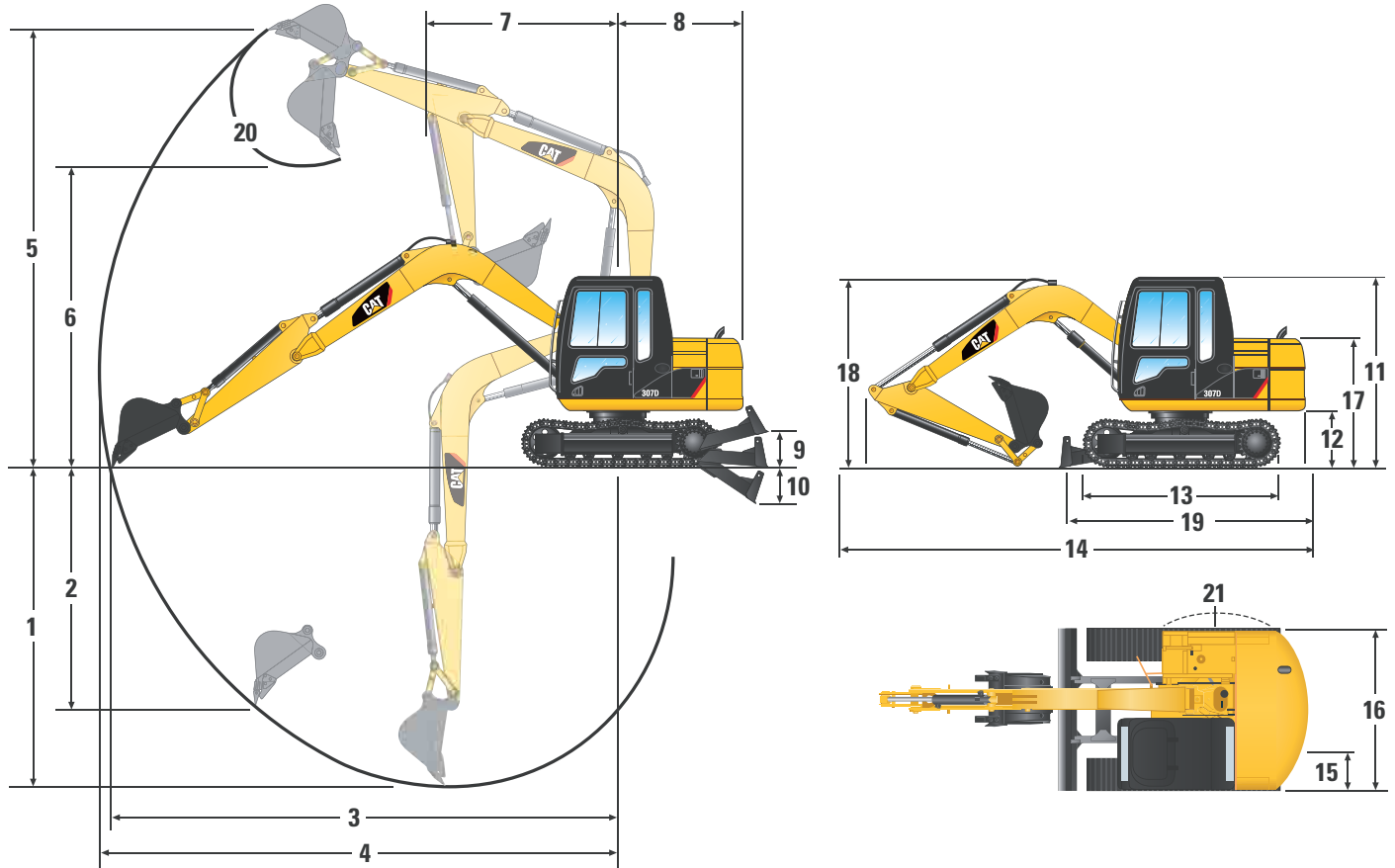
Blade

Width	2300 mm
Height	450 mm
Digging depth	350 mm
Lift height	390 mm

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

Dimensions

All dimensions are approximate.



	Medium Stick mm	Long Stick mm		Medium Stick mm	Long Stick mm
1	4050	4600	12	760	760
2	3640	4170	13	2760	2760
3	6150	6670	14	5700	5730
4	6290	6790	15	450	450
5	7230	7640	16	2290	2290
6	5210	5610	17	1790	1790
7	1670	2230	18	2200	2200
8	1750	1750	19	3300	3300
9	380	380	Boom Height Travel	2630	2725
10	360	360	Tail Overhang	150	605
11	2630	2630			

Lift Capacities

















All weights are in kg. Calculations are made with bucket fully curled. Lift capacities described in the tables below are calculated with 450 mm shoes. 600 mm shoe configurations are not included as they do not impact significantly the following data.

Blade Up

Medium stick – 1670 mm

Bucket – 0.23 m³

Shoes – 450 mm

















	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m				
															m
6.0 m													*850	*850	3.65
5.0 m					*1850	*1850	*1300	*1300					*700	*700	4.82
4.0 m					*2050	*2050	1960	1700					*650	*650	5.49
3.0 m			*3300	*3300	*2500	*2500	1900	1700	1300	1150			*650	*650	5.88
2.0 m					2900	2500	1800	1600	1250	1100			*700	*700	6.03
1.0 m					2700	2350	1750	1550	1200	1100			*750	*750	5.99
0 m			*5750	*5750	2650	2300	1700	1500	1200	1050			*800	*800	5.74
-1.0 m	*2550	*2550	*4200	*4200	2600	2250	1650	1450					*950	*950	5.24
-2.0 m	*4300	*4300	*4450	*4450	2600	2250	1650	1450					*1250	*1250	4.42
-3.0 m			*3100	*3100	*2150	*2150							*1850	*1850	3.26

Blade Up

Long stick – 2210 mm

Bucket – 0.23 m³

Shoes – 450 mm

















	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m				
															m
6.0 m							*1000	*1000					*850	*850	4.52
5.0 m							*1500	*1500					*750	*750	5.47
4.0 m					*3500	*3500	*1650	*1650	1350	1200			*700	*700	6.06
3.0 m					*2050	*2050	*1850	1700	1300	1150			*700	*700	6.40
2.0 m					*2700	2600	1800	1600	1250	1100			*750	*750	6.54
1.0 m					2750	2400	1750	1550	1200	1050			*750	*750	6.50
0 m					2600	2250	1650	1450	1150	1050			800	750	6.27
-1.0 m	*4550	*4550	*3650	*3650	2550	2200	1600	1400	1150	1000			900	800	5.84
-2.0 m	*3350	*3350	*5000	4450	2550	2200	1600	1400					1150	*1000	5.13
-3.0 m	*5050	*5050	*4000	*4000	2600	2250							*1300	*1300	3.97

Blade Down

Medium stick – 1670 mm

Bucket – 0.23 m³

Shoes – 450 mm

















	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m				
															m
6.0 m													*850	*850	8.65
5.0 m					*1850	*1850	*1300	*1300					*700	*700	4.82
4.0 m					*2050	*2050	*1950	1900					*650	*650	5.49
3.0 m			*3300	*3300	*2500	*2500	*2150	1850	*1600	1300			*650	*650	5.88
2.0 m					*3100	2850	*2400	1800	*2050	1250			*700	*700	6.03
1.0 m					*3600	2650	*2650	1700	*2150	1200			*750	*750	5.99
0 m			*5750	*5750	*3800	2600	*2800	1650	*2200	1200			*800	*800	5.74
-1.0 m	*2550	*2500	*4200	*4200	*3700	2550	*2700	1650					*950	*950	5.24
-2.0 m	*4300	*4300	*4450	*4450	*3250	2550	*2350	1650					*1250	*1250	4.42
-3.0 m			*3100	*3100	*2150	*2150							*1850	*1850	3.26

Blade Down

Long stick – 2210 mm

Bucket – 0.23 m³

Shoes – 600 mm

	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m				
															m
6.0 m							*1000	*1000					*850	*850	4.52
5.0 m							*1500	*1500					*750	*750	5.47
4.0 m					*3500	*3500	*1650	*1650	1550	1300			*700	*700	6.06
3.0 m					*2050	*2050	*1850	1850	1750	1300			*700	*700	6.40
2.0 m					*2700	*2700	1800	1800	1850	1250			*750	*750	6.54
1.0 m					*3300	2700	1750	1700	2000	1200			*750	*750	6.50
0 m					*3650	2550	1650	1650	2150	1150			*850	800	6.27
-1.0 m	*4550	*4550	*3650	*3650	*3750	2500	1600	1600	2100	1150			*1000	900	5.84
-2.0 m	*3350	*3350	*5000	*5000	*3450	2500	1600	1600					*1200	1150	5.13
-3.0 m	*5050	*5050	*4000	*4000	*2800	2550							*1300	*1300	3.97



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

307D Standard Equipment

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

Alternator - 35 A	Guards
Automatic low idle function	– Falling object system
Auxiliary circuit valve, controls and	– Front windshield
one-way hammer lines to stick	Horn
two-way (auger) auxiliary lines to stick	Hydraulic oil cooler
Auxiliary line quick couplers	Joystick integrated auxiliary control
Brake, automatic swing holding	Low maintenance linkage pin joints
Boom, one-piece	Maintenance-free batteries (2)
Cab, fully glazed with FOPS per ISO 10262	Mirrors, cab left
(level I), TOPS per ISO 12117	Power receptacle, 12 V
AM / FM Radio with CD player, interior light,	Standard stick – 1670 mm
windshield wiper/washer	Starting aid, cold weather
Cab mounted working lights (2)	Suspension seat, with retractable seat belt, 50 mm wide
Coat hook	Steel tracks with 450 mm triple grouser shoes
Cooling package, high ambient	Travel pedals
Cup holder	Two speed travel, automatic
Dial type accelerator	Water separator, fuel lines
Door and cab lock, one key	Windows:
Dozer blade – 2300 mm with float function and replaceable wear edge	– main windshield wiper and washer
External storage area	– right and rear windows tempered glass
Floor mat	– sliding door window, tempered glass
Gauges and indicators for fuel level, engine coolant temperature,	– windshield, two-piece:
hour meter, engine oil pressure, air cleaner, alternator and glow	upper, retractable laminated glass
plugs, service interval	lower, tempered glass
	– opening window in cab roof with one touch handle

307D Optional Equipment

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

Air conditioner with heater/defroster	Working light, r.h. frame side
Blade: 2400 mm for 600 mm shoe width options	Long stick – 2210 mm
Boom mounted working light	Cat Machine Security System (MSS) ready
Buckets	Cat Product Link ready
Check valve, boom lowering	Seat belt, 75 mm wide
Check valve, stick lowering	Tracks, steel with 600 mm triple grouser shoes
Overload warning device (only with BLCV)	Tracks, with 450 mm segmented rubber shoes
Coolant, extended life	Tracks, steel with 450 mm rubber pads
Ecology drain valve for hydraulic oil	Seat options:
Ecology drain valve for engine oil	– Seat without suspension, head rest
Electric refuelling pump	– Vinyl seat without suspension, head rest
Front screen guard for cab	– high back seat with suspension, head rest
Hydraulic arrangements, auxiliary:	Tool box
– single function capability	Travel alarm
– double function capability	Work tools
– combined single and double function capability	

307D Mini Hydraulic Excavator

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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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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