

M317

WHEEL EXCAVATOR



Engine Power – ISO 14396	110 kW (148 hp)
Operating Weight Maximum	19 950 kg (43,980 lb)
Maximum Travel Speed	35 km/h (21.7 mile/h)



M317

WHEEL EXCAVATOR

The Cat® M317 Wheel Excavator offers performance features and versatility to help you get more work done every day. Its compact radius design lets you work in space restricted areas. With easy-to-use controls, tiltrotator integration, a comfortable cab, and long service intervals, the M317 helps save you time and money.



HIGH PERFORMANCE

Work fast with help from the reduced front and tail swing radius and optional Cat® Grade Assist technology, along with versatility with the tiltrotator integration.

ENHANCE COMFORT

Operate with ease. Deluxe and Premium cab options with an ergonomic control layout and improved right-side visibility* let you work comfortably all shift long.

*Compared to the M317 with twin turbo engine.

EASY TO MAINTAIN

Long life filters for fuel, hydraulic oil, and air, 100% daily ground-level maintenance, and centralized grease points with an autolube option help lower your overall costs.

HIGH PERFORMANCE

- The Cat® C4.4 engine matches to your performance and production needs. The engine meets EU Stage V emission standards.
- The M317 is fuel efficient to help keep you moving and productive on the job site.
- Work confidently in space-restricted areas. Dig, swing, and dump within a tight working space.
- Travel between sites easily with travel speeds up to 35 kph (21.7 mph).
- From dirt to asphalt, the excavator matches your needs to help get the job done in a timely, efficient manner.
- The advanced hydraulic system provides the optimum balance of power and efficiency while giving you the control you need for precise working requirements.
- The dedicated swing pump helps provide consistent power for better multitasking capabilities.
- Auxiliary hydraulic options give you the versatility to use a wide range of Cat attachments.
- Don't let the temperature stop you from working. The wheel excavator has a standard high-ambient temperature capability of 52° C (125° F) and cold start capability of -18° C (0° F).

***Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.
Build Number: 07D***



WORK IN COMFORT

- Choose between Deluxe and Premium cab options.
- The Deluxe seat is heated and air adjustable while the Premium seat is heated, ventilated, and adjusts automatically.
- Get in and out of the cab easily using the tilt-up left console.
- Advanced viscous mounts help you feel comfortable in the cab while you work with reduced cab vibrations.
- Control the excavator comfortably with easy-to-reach controls, all located in front of you.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, overhead, and in the consoles. A cup holder, bottle holder, and coat hook are also provided.
- Bluetooth® integrated radio allows for seamless mobile phone connection to listen to music, podcasts, and hands-free calling.
- Easily adjust the climate control system using the touchscreen monitor or jog dial.



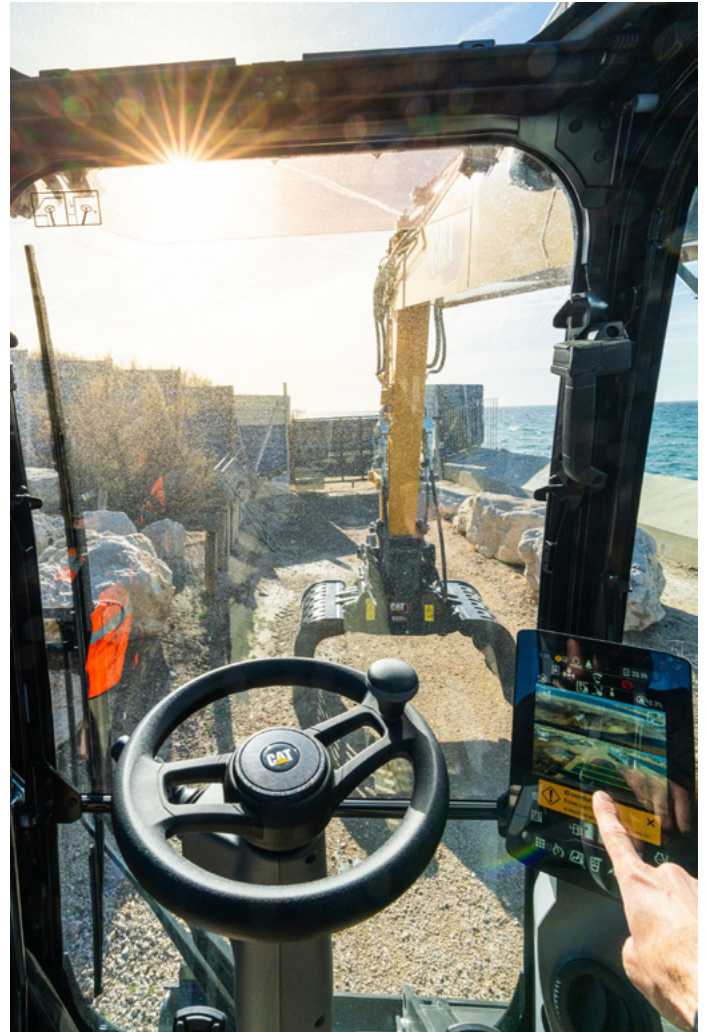
LOW MAINTENANCE COSTS



- Quickly check and service your machine with daily maintenance points accessible from ground level.
- Check the engine oil level quickly and safely from the ground.
- Long life filters for fuel, hydraulic oil, and air help save on maintenance costs.
- Track your machine's filter life and maintenance intervals on the in-cab monitor.
- Two levels of fuel filtration help protect the engine from fuel contamination.
- The hydraulic oil filter helps provide high filtration performance, anti-drain valves to help keep oil clean when the filter is replaced, and longlife with a 3,000-hour replacement interval.
- Centralized grease points with an autolube option mean less downtime and more work getting done.
- Scheduled Oil Sampling (S-O-SSM) ports are located at ground level, helping simplify maintenance and allowing for quick, easy extraction of fluid samples for analysis.
- Boost productivity with proactive service reminders. The Integrated vehicle health management system alerts the operator with step-by-step service guidance along with parts needed so you don't experience any unnecessary downtime.

SIMPLE TO OPERATE

- Start the engine with the push-to-start button, a Bluetooth key fob, or the unique Operator ID function.
- Program your power mode and joystick preferences using Operator ID; the excavator remembers your settings each time you go to work.
- The axle locks at zero speed and unlocks when the travel pedal is activated. The axle can also be manually locked with a button on the right-hand console.
- Tiltrotator attachments – ours or other brands – work with Cat Grade with 2D, Assist, Payload, and E-Fence. With no additional hardware required, all you have to do is simply select “Third Party Tiltrotator System Installation” on the monitor, do the calibration, and get to work.
- Standard high-resolution 254 mm (10 inch) touchscreen monitor features:
 1. Continuously improved user interface allows for intuitive navigation, helping minimize performance interruption with the easy-to-use touchscreen menu.
 2. Identify applications quickly with a grid list view, abbreviated app names, and categorized menu options.
 3. The notification center keeps important information visible to the operator and displays messages without shrinking the camera view.
 4. Color coded notifications set critical messages apart from the rest.
 5. Use the in-monitor QR code to learn about machine and technology features through a full suite of “how-to” videos.



SAFETY FEATURES

- Access daily maintenance points from ground level.
- Keep your excavator secure with Operator ID. Use your PIN code on the monitor to enable the pushbutton starting feature.
- The standard standard Rollover Protective Structure (ROPS)cab meets ISO 12117-2:2008 requirements.
- The redesigned layout of the M317 helps provide improved right-side visibility compared to the M317 with twin turbo engine. Rearview and right-side-view cameras are standard.
- The service platform design helps provide easy, safe, and quick access to the upper service platform; the service platform steps use anti-skid punch plate to help prevent slipping.
- The standard hydraulic lockout lever isolates all hydraulic and travel functions in the lowered position.
- Swing lock prevents the front linkage from moving as you travel.
- The ground-level shutoff switch stops all fuel to the engine when activated and shuts down the machine.
- Optional inspection lighting helps make service work safe and easy. With the flip of a switch, lights will illuminate the engine, pump, battery, and radiator compartments to enhance visibility.



BOOST EFFICIENCY AND PRODUCTIVITY WITH INTEGRATED CAT TECHNOLOGIES

- Optional Cat Grade with 2D system helps boost productivity versus traditional grading.
- Optional Cat Payload helps you achieve precise load targets to improve your operating efficiency. Pick up a load of material – with a bucket and thumb combination or grapple and clamshell attachments – and get a real-time weight estimate without swinging.
- Combine Payload with VisionLink® and remotely manage your production targets or take payload data with you.
- Upgrade to our dual antenna Global Navigation Satellite System (GNSS) for maximum grading efficiency. The system lets you create and edit designs on the touchscreen monitor while you're on the job, or you can have the plan design sent to the excavator. Plus, you get added benefits of avoidance zones, cut and fill mapping, lane guidance, and augmented reality along with advanced positioning capability.
- Optional Grade Assist helps you stay on grade – simply and effortlessly – with single-lever digging. Set your desired bucket angle and let Bucket Assist automatically maintain the angle in sloping, leveling, fine grading, and trenching applications
- Optional 2D E-fence is integrated right out of the factory to prevent the excavator from moving outside operator defined set points.
- All Cat Grade systems are compatible with radios and base stations from Trimble, Topcon, and Leica. Already invested in a grade infrastructure? You can install grade systems from Trimble, Topcon, and Leica onto the machine.



- The Cat C4.4 engine meets EU Stage V emission standards.
 - Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to: 20% biodiesel FAME (fatty acid methyl ester)* or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations”(SEBU6250) for details.
 - Cat Grade technologies combine advanced guidance with optional automated machine control helping you reach grading targets while reducing fuel burn and greenhouse gas emissions by improving efficiency, job site productivity, and accuracy.
 - Auto Engine Speed Control reduces unnecessary fuel burn and greenhouse gas emissions by allowing the engine to automatically go into idle mode when the machine is not working.
 - Cat® Payload for excavators provides on-the-go material weighing which helps reduce fuel burn by improving loading efficiency, job site productivity, and eliminating trips to the scale.
 - Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine.
 - Cat Scheduled Oil Sampling (S-O-S) Services helps reveal excessive wear, contaminated fluids or other “unseen” issues that can shorten component life. In many cases, you can extend oil and coolant change intervals by using fluid monitoring. Consult your Cat dealer or the machine’s operation and maintenance manual for more information.
 - Don’t waste fuel idling. Cat VisionLink online fleet monitoring helps you manage idle time and reduce fuel burn and greenhouse gas emissions. VisionLink displays the CO₂ emissions for monitored assets, calculated by fuel type for the Runtime Fuel Burned each day in a selected date range.
 - Remote Flash minimizes downtime and maintenance time while keeping your asset running with maximum efficiency. Alerts for machine updates are sent virtually from your Cat dealer and updates can be deployed without a dealer technician needing to be onsite. Remote Troubleshoot decreases maintenance time and keeps your machine running with maximum efficiency by allowing your Cat dealer to virtually test the machine while working. Once a problem is identified, a technician can fix it the first time, saving time and money.
- *Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).***
- **Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.***



MORE THAN MACHINES

BUILT AROUND YOUR SUCCESS

When you buy Cat equipment, you get so much more than the machine. You also get the support of a best-in-class dealer network, backed by a range of flexible solutions, technology, tools, and more.



CUSTOMER VALUE AGREEMENTS

A Customer Value Agreement (CVA) from your Cat dealer helps you do more and worry less. A CVA simplifies machine ownership and maintenance, adds the security of expert dealer support, and gives you the peace of mind from effective equipment health management.

GENUINE CAT PARTS

Genuine Cat parts deliver the highest level of reliability and productivity. Order direct from your Cat dealer or shop online at parts.cat.com.

REPAIR OPTIONS

A broad range of repair options gives you choices that work with your needs, budget, and timeline. Every repair is performed by expert Cat technicians. You'll receive smart repair advice, a timely, accurate quote, and service that gets your machine back into action quickly.

FINANCIAL SERVICES

Count on Cat Financial to provide the best finance and extended protection solutions for your business. For more than 30 years, we have helped our customers succeed through financial service excellence.



DOZERS



SKID STEERS



MATERIAL HANDLERS



EXCAVATORS



WHEEL LOADERS



TRACK LOADERS

INCREASE YOUR PRODUCTIVITY AND PROFIT

WITH CAT ATTACHMENTS

You can easily expand the performance of your machine by utilizing any of the variety of Cat attachments. Each Cat attachment is designed to fit the weight and horsepower of Cat wheeled excavators for improved performance, safety, and stability.

BUCKETS



GRAPPLES



HYDRAULIC HAMMERS



TILTROTATORS



SHEARS



COMPACTORS



COUPLERS



TECHNICAL SPECIFICATIONS

Engine		
Engine Power – ISO 14396	110 kW	148 hp
Engine Power – ISO 14396 (DIN)	150 hp (metric)	
Engine Model	C4.4	
Net Power – ISO 9249	105 kW	141 hp
Net Power – ISO 9249 (DIN)	143 hp (metric)	
Bore	105 mm	4.1 in
Displacement	4.4 L	268.5 in ³
Stroke	5 in	127 mm
Biodiesel Capability	Up to B20 ¹	
Emissions	Meets EU Stage V emission standards.	

Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed. Rated speed 2,200 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

¹Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to: 20% biodiesel FAME (fatty acid methyl ester)* or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).

**Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

Hydraulic System		
Main System – Maximum Flow – Implement	254 L/min	67 gal/min
Maximum Pressure – Implement Circuit – Heavy Lift	37 000 kPa	5,366 psi
Maximum Pressure – Implement Circuit – Travel Circuit	35 000 kPa	5,076 psi
Maximum Pressure – Implement Circuit – Normal	35 000 kPa	5,076 psi

Swing Mechanism		
Maximum Swing Torque	42 kN-m	31,080 lbf-ft
Swing Speed	9.4 r/min	

Machine Weight		
Operating Weight Maximum	19 950 kg	43,980 lb
Operating Weight Minimum	17 200 kg	37,920 lb

Service Refill Capacities		
Fuel Tank	290 L	76.6 gal
Diesel Exhaust Fluid (DEF)	20 L	5.3 gal
Cooling System	24 L	6.3 gal
Hydraulic Tank	121 L	32 gal
Hydraulic System – Including Tank	280 L	74 gal

Transmission		
Maximum Travel Speed	35 km/h	21.7 mile/h
Forward/Reverse – 1st Gear	10 km/h	6.2 mile/h
Forward/Reverse – 2nd Gear	35 km/h	21.7 mile/h
Creeper Speed – 1st Gear	5.5 km/h	3.4 mile/h
Creeper Speed – 2nd Gear	15 km/h	9.3 mile/h
Drawbar Pull	104 kN	23,380 lbf

Dimensions		
Boom	VA 5.2 m (17'1")	
Stick	2.5 m (8'2")	
Bucket	GD 0.80 m ³ (1.05 yd ³)	
Shipping Height – Top of Cab	3320 mm	10.9 ft
Support Point	3520 mm	11.5 ft
Shipping Length	8720 mm	28.6 ft
Tail Swing Radius	1850 mm	6.1 ft
Counterweight Clearance	1300 mm	4.3 ft
Ground Clearance	405 mm	1.3 ft
Undercarriage Length	5050 mm	16.6 ft
Wheel Base	2700 mm	8.9 ft

Working Ranges and Forces		
Boom Type	VA 5.2 m (17'1")	
Stick	2.5 m (8'2")	
Bucket	GD 0.80 m ³ (1.05 yd ³)	
Maximum Loading Height	7770 mm	25.5 ft
Dump Height	7770 mm	25.5 ft
Maximum Digging Depth	5750 mm	18.9 ft
Digging Height	5770 mm	18.9 ft
Reach at Ground Level	9210 mm	30.2 ft
Vertical Wall Digging Depth	4450 mm	14.6 ft
Stick Forces (ISO)	70 kN	15,737 lbf
Bucket Forces (ISO)	119 kN	26,752 lbf
Cutting Height	10 740 mm	35.2 ft

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg (2.2 lb) of refrigerant which has a CO₂ equivalent of 1.43 metric tonnes (1.576 tons).

STANDARD & OPTIONAL EQUIPMENT

NOTE: Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
BOOM AND STICKS		
5.2 m (17'1") Variable Adjustable boom	✓	
2.2 m (7'3") stick		✓
2.5 m (8'2") stick		✓
UNDERCARRIAGE AND STRUCTURES		
Creeper speed	✓	
Electronic swing and travel lock	✓	
Heavy-duty axles, advanced disc brake system and travel motor, adjustable braking force	✓	
Oscillating front axle, lockable, with remote greasing point	✓	
Automatic brake/axle lock	✓	
4300 kg (9,460 lb) counterweight	✓	
All wheel drive	✓	
10.00-20 16 PR, dual tires		✓
11.00-20 16 PR, dual tires		✓
315/70R22.5, no gap dual tires		✓
445/70R 19.5, single tires		✓
CAT TECHNOLOGY		
Cat® Product Link™	✓	
Remote flash/troubleshoot capability	✓	
Cat Grade with 2D		✓
Cat Grade with 3D		✓
Cat Payload		✓
2D E-Fence		✓
Laser catcher		✓
Cat Grade Assist		✓
CAB		
ROPS, advanced sound suppression (ISO 12117-2:2008)	✓	
High-resolution 254 mm (10 in) LCD touchscreen monitor	✓	
Deluxe cab		✓
Premium cab		✓
Auxiliary relay		✓
ENGINE		
Cat C4.4 diesel engine	✓	
Power mode selector	✓	
One-touch low idle with auto engine speed control	✓	
Auto engine idle shutdown	✓	
52° C (125° F) high-ambient cooling capacity	✓	
-18° C (0° F) cold start capability	✓	
Sealed double element air filter with integrated pre-cleaner	✓	
Electric fuel priming pump	✓	
On-demand cooling fan	✓	

	Standard	Optional
ELECTRICAL SYSTEM		
LED lights on chassis (left-hand, right-hand) and counterweight	✓	
Programmable time-delay LED working lights	✓	
Roading and indicator lights, front and rear	✓	
Maintenance-free batteries	✓	
Centralized electrical disconnect switch	✓	
Electrical refueling pump		✓
SERVICE AND MAINTENANCE		
Scheduled Oil Sampling (S-O-S) ports	✓	
Automatic lubrication system for implement and swing system		✓
HYDRAULIC SYSTEM		
Automatic swing brake	✓	
Auto hydraulic oil warm up	✓	
Electronic main control valve	✓	
Boom, stick, and bucket drift reduction valves	✓	
Heavy lift mode	✓	
Quick coupler circuit for CW-dedicated coupler	✓	
Separate dedicated swing pump	✓	
Adjustable hydraulic aggressiveness	✓	
Adjustable hydraulic aggressiveness	✓	
Auxiliary high pressure circuit	✓	
1-slider joysticks		✓
2-slider joysticks		✓
Second high-pressure auxiliary circuit (one/two-way high-pressure flow)		✓
Medium pressure auxiliary circuit (one/two-way medium-pressure flow)		✓
SmartBoom™		✓
Ride control		✓
Cat tiltrotator support		✓
Joystick steering		✓
SAFETY AND SECURITY		
Rear- and right-side-view cameras	✓	
Wide angle mirrors	✓	
Ground-level engine shutoff switch	✓	
Anti-skid plate and countersunk bolts on service platform	✓	
360° visibility		✓
Cat Asset tracker		✓
Inspection lighting		✓
Travel alarm		✓

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 Cat dealer for available options.

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