



Cat[®] 350

Hydraulic Excavator

The Cat[®] 350 is at the top of its class for productivity. With low owning and operating costs and easy-to-use Cat technology, the excavator will help you get work done on grade and on time.

High Performance, Low Fuel Consumption

- Powerful digging force and strong swing torque enable the use of large buckets up to 3.2 m³ (4.2 yd³) for class-leading productivity.
- Compared to the Cat 349-07, the 350 consumes up to 13 percent less fuel for lower operating costs and greater profit potential.
- Match the excavator to the job with three power modes – Power, Smart, and Eco. Power mode is maximum power all the time. Smart mode automatically matches engine and hydraulic power to digging conditions, providing maximum power when needed and reducing power when it isn't to help save fuel. Eco mode reduces engine speed and keeps it constant to reduce fuel consumption.
- Valve priority puts hydraulic pressure and flow where you command it to go for fast light- to medium-load cycle times.

Boost Efficiency and Productivity

- Boost productivity up to 45 percent with optional Cat Grade technology.
- 2D Grade indicates depth and slope on the monitor with auditory alerts.
- Grade Assist helps you stay on grade – simply and effortlessly – with single-lever digging.
- Automatically stop excavator swing at operator-defined setpoints in truck loading and trenching applications with Swing Assist, which will help you use less effort and consume less fuel.
- Cat Payload onboard weighing helps you achieve precise load targets to improve your operating efficiency. Pick up a load of material – with either a bucket or grapple – and get a real-time weight estimate without even swinging.
- Combine Payload with VisionLink[®] and remotely manage your production targets. The monitor's USB port lets you download results from one shift all the way up to 30 days of work, so you can manage your progress without needing an internet connection or VisionLink subscription.
- Upgrade to Cat Grade with Advanced 2D and create and edit grade designs with ease on a second high-resolution 254 mm (10 in) touchscreen monitor.
- Upgrade to Cat Grade with 3D and create and edit designs with ease and see the front linkage's full range of motion on a second high-resolution 254 mm (10 in) touchscreen monitor.
- Know the excavator's exact position relative to GPS and GLONASS systems. The machine automatically compensates for excavator pitch and roll caused by sloping ground conditions.
- 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.
- Remote troubleshoot connects you to a dealer service pro to help solve your problem and quickly get you to work.
- Remote flash works around your schedule to ensure your machine's software is up to date for optimal performance.
- Standard Product Link[™] provides location, machine hours, fuel usage, productivity, idle time, diagnostic codes, and other machine data on demand through VisionLink online interface, helping you improve jobsite efficiency with lower operating costs.

Built For Rugged Conditions

- The reinforced swing bearing, along with stress-relieved boom and stick, enables the 350 to take on tough work over and over again.
- Work up to 4500 m (14,764 ft) above sea level.
- Standard high-ambient temperature capability is 52°C (125°F). Standard cold start capability is -18°C (0°F); -32°C (-25°F) cold start capability is an available option.
- Automatic hydraulic oil warmup gets you to work faster in cold temperatures and helps prolong the life of components.
- Three levels of filtration protect the engine from dirty diesel fuel.
- Grease sealed between track pins and bushings reduces travel noise and prevents debris from entering to increase undercarriage life.
- Standard built-in protection includes bottom, travel motor, and swivel guards.
- The sloped track frame prevents mud and debris accumulation, helping reduce risk of track damage.

Work in Comfort

- Choose between Deluxe and Premium cabs – both with automatic climate control.
- Deluxe cab comes with heated seat to keep you warm.
- Premium cab comes with heated and ventilated seat for year-round comfort.
- Control the excavator comfortably with easy-to-reach controls all located in front of you.
- Tilt-up left console enables easy entry and exit.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, overhead, and in the consoles.
- Use the standard radio's USB ports and Bluetooth[®] technology to connect personal devices and make hands-free calls.



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Simple to Operate

- Start the engine with a push button; use a Bluetooth key fob or Operator ID passcode.
- Program each joystick button – including power mode, response, and pattern – using Operator ID; the machine will remember what you set each time you go to work.
- Trouble cutting through tough material? Auto dig boost gives you an automatic power increase of 8 percent when you need it for better bucket penetration, shorter cycle times, and greater payloads.
- Need more lift during your shift? Auto heavy lift gives you 8 percent more power exactly when you need it for as long as you need it.
- Make moving the excavator much easier with optional Cat Stick Steer. Simply push a button and use one hand to travel and turn instead of both hands or feet on levers or pedals.
- Navigate quickly on the high-resolution touchscreen monitor or with the aid of the jog dial control.
- Protect your hammer from overworking. Auto hammer stop warns you after 15 seconds of continuous firing and then automatically shuts it off after 30 seconds – all to prevent wear and tear on the attachment and excavator.
- Not sure how a function works or how to maintain the excavator? Always have the operator’s manual at your fingertips in the touchscreen monitor.

Easy Maintenance

- Expect less maintenance cost due to extended and synchronized service intervals.
- Check hydraulic system oil and easily drain fuel system water from ground level.
- Track your excavator’s filter life and maintenance intervals via the in-cab monitor.
- Oil and fuel filters are grouped and located on right-hand side of machine for easy maintenance.
- The air intake filter with pre-cleaner has high dust holding capacity.
- The hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced, and longer life with a 3,000 hour replacement interval – 50 percent longer than previous filter designs.
- S-O-SSM ports are on ground level, simplifying maintenance and allowing for quick, easy extraction of fluid samples for analysis.

Enhanced Safety

- Keep your excavator secure with Operator ID. Use your PIN code on the monitor to enable the push button starting feature.
- A travel direction indicator helps operators know which way to activate the travel levers.
- A ground-level shutoff switch stops all fuel to the engine when activated and shuts down the machine.
- Enjoy great visibility into the trench, in each swing direction, and behind you with the help of smaller cab posts and larger windows.
- Serrated steps and anti-skid punch plate on the service platform help prevent slipping.
- A rearview camera is standard.

Standard and Optional Equipment

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

	Standard	Optional
BOOMS, STICKS AND LINKAGES		
6.55 m (21'6") Mass boom		✓
6.9 m (22'8") Reach boom		✓
2.5 m (8'2") Mass stick		✓
2.9 m (9'6") Reach stick		✓
3.0 m (9'10") Mass stick		✓
3.35 m (11') Reach stick		✓
3.9 m (12'10") Reach stick		✓
CAT TECHNOLOGY		
Cat Product Link™	✓	
Remote flash	✓	
Remote troubleshoot	✓	
Cat Grade connectivity		✓
Compatibility with radios and base stations from Trimble, Topcon, and Leica	✓	
Capability to install 3D grade systems from Trimble, Topcon, and Leica	✓	
Cat Grade with 2D and offset memory	✓	
Cat Grade with Advanced 2D		✓
Cat Grade with 3D		✓
Cat Assist: – Grade Assist – Boom Assist – Bucket Assist – Swing Assist – Lift Assist	✓	
Cat Payload: – Static weigh – Semiautomatic calibration – Payload/cycle information – USB reporting capability	✓	
2D E-Fence: – E-ceiling – E-floor – E-swing – E-wall – E-cab avoidance	✓	
Auto hammer stop	✓	
Laser catcher		✓
Work tool recognition	✓	
Work tool tracking*	✓	

(continued on next page)

* Requires PL161 attachment locator on work tool and Bluetooth receiver on machine.

Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
ELECTRICAL SYSTEM			UNDERCARRIAGE AND STRUCTURES		
Maintenance-free 1,000 CCA batteries (x2)	✓		Towing eye on base frame	✓	
Centralized electrical disconnect switch	✓		9 mt (19, 842 lb) counterweight	✓	
LED chassis and boom lights	✓		600 mm (24") double grouser track shoes		✓
ENGINE			600 mm (24") HD double grouser track shoes		✓
Cold start block heaters		✓	750 mm (30") triple grouser track shoes		✓
Three selectable modes: Power, Smart, Eco	✓		900 mm (35") triple grouser shoes		✓
Automatic engine speed control	✓				
52°C (126°F) high-ambient cooling capacity	✓			Deluxe	Premium
Hydraulic reverse fan	✓*		CAB		
-18°C (0°F) cold start capability	✓		ROPS	●	●
-32°C (-25°F) cold start capability		✓	High-resolution 203 mm (8") LCD touchscreen monitor	●	X
Double element air filter with integrated pre-cleaner	✓		High-resolution 254 mm (10") LCD touchscreen monitor	○	●
HYDRAULIC SYSTEM			Auto bi-level air conditioner	●	●
Boom and stick regeneration circuit	✓		Jog dial and shortcut keys for monitor control	●	●
Electronic main control valve	✓		Keyless push-to-start engine control	●	●
Automatic hydraulic oil warmup	✓		Height-adjustable console	●	●
Auto dig boost	✓		Tilt-up left-side console	●	●
Auto heavy lift	✓		Heated air-suspension seat	●	X
Reverse swing damping valve	✓		Heated and ventilated air-suspension seat	X	●
Automatic swing parking brake	✓		51 mm (2") seat belt	●	●
High performance hydraulic return filter	✓		Monitor integrated Bluetooth radio with USB/Aux ports	●	●
Two-speed travel	✓		12V DC outlets	●	●
Bio hydraulic oil capability	✓		Document storage	●	●
Combined two-way auxiliary circuit		✓	Overhead storage and rear storage with nets	●	●
SAFETY AND SECURITY			Beverage holder	●	●
Caterpillar One Key security system	✓		Cup holder	●	●
Lockable external tool/storage box	✓		Openable two-piece front window	●	●
Lockable door, fuel, and hydraulic tank locks	✓		One-piece front windshield	X	○
Lockable fuel drain compartment	✓		Rear window emergency exit	●	●
Service platform with anti-skid plate and recessed bolts	✓		Radial wiper with washer	●	X
RH handrail and handhold	✓		Parallel wiper	X	●
Signaling/warning horn	✓		Openable polycarbonate skylight hatch	●	●
Ground-level secondary engine shutoff switch	✓		LED dome light	●	●
Rearview camera and right-hand-side mirror	✓		Floor welcome light	●	●
SERVICE AND MAINTENANCE			Roof sunscreen	●	●
Grouped location of engine oil and fuel filters	✓		Roller front sunscreen	●	●
Scheduled Oil Sampling (S.O.S SM) sampling ports	✓		Roller rear sunscreen	○	●
Electric refueling pump with automatic shutoff		✓	Washable floor mat	●	●
			Beacon ready	●	●
			Cat Stick Steer	○	○

● Standard
○ Optional
X Not available

*Optional in Europe.

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Technical Specifications

Engine		
Engine Model	C9.3B	
Net Power – ISO 9249:2007	308 kW	413 hp
Net Power – ISO 9249:2007 (DIN)	419 hp (metric)	
Engine Power – ISO 14396:2002	309 kW	414 hp
Engine Power – ISO 14396:2002 (DIN)	420 hp (metric)	
Bore	115 mm	5 in
Stroke	149 mm	6 in
Displacement	9.3 L	568 in ³

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 (Tier 4 Final) emission standards.
- Recommended for use up to 4,500 m (14,760 ft) altitude with engine power derate above 3,000 m (9,840 ft).
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system, and alternator.
- Engine rating at 1,800 rpm.

Swing Mechanism		
Swing Speed	7.94 rpm	
Maximum Swing Torque	189 kN·m	139,275 lbf·ft

Weights		
Operating Weight	47 700 kg	105,100 lb
• Reach boom, R3.9TB (12'10") stick, GDC 3.08 m ³ (4.03 yd ³) bucket, 900 mm (35") triple grouser shoes, long undercarriage.		

Hydraulic System		
Main System – Maximum Flow – Implement	779 L/min (389 × 2 pumps)	206 gal/min (103 × 2 pumps)
Maximum Pressure – Equipment – Implement	35 000 kPa	5,076 psi
Maximum Pressure – Equipment – Lift Mode	38 000 kPa	5,511 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	25 700 kPa	3,727 psi

Service Refill Capacity		
Fuel Tank Capacity	680 L	179.6 gal
Cooling System	48 L	12.7 gal
Engine Oil (with filter)	32 L	8.5 gal
Swing Drive	15 L	4.0 gal
Final Drive (each)	11 L	2.9 gal
Hydraulic System (including tank)	550 L	145.3 gal
Hydraulic Tank (including suction pipe)	217 L	57.3 gal
DEF Tank	80 L	21.1 gal

Dimensions				
Boom	Reach 6.9 (22'8")		Mass 6.55 (21'6")	
Stick	Reach R3.9TB (12'10")		Mass M2.5UB	
Bucket	GDC 3.08 m³ (4.03 yd³)		SDV 3.21 m³ (4.20 yd³)	
Shipping Height (top of cab)	3260 mm	10'8"	3260 mm	10'8"
Handrail Height	3400 mm	11'2"	3400 mm	11'2"
Shipping Length	11 950 mm	39'2"	11 630 mm	38'2"
Tail Swing Radius	3760 mm	12'4"	3760 mm	12'4"
Counterweight Clearance	1340 mm	4'5"	1340 mm	4'5"
Ground Clearance	520 mm	1'8"	520 mm	1'8"
Length to Center of Rollers	4360 mm	14'4"	4360 mm	14'4"
Track Length	5400 mm	17'9"	5400 mm	17'9"
Track Gauge	2740 mm	9'0"	2740 mm	9'0"
Transport Width – 600 mm (24") Shoes	3340 mm	10'11"	3340 mm	10'11"

Working Ranges and Forces				
Boom	Reach 6.9 (22'8")		Mass 6.55 (21'6")	
Stick	Reach R3.9TB (12'10")		Mass M2.5UB	
Bucket	GDC 3.08 m³ (4.03 yd³)		SDV 3.21 m³ (4.20 yd³)	
Maximum Digging Depth	8210 mm	26'11"	6800 mm	22'4"
Maximum Reach at Ground Line	12 150 mm	39'10"	10 800 mm	35'5"
Maximum Cutting Height	10 690 mm	35'1"	10 070 mm	33'0"
Maximum Loading Height	7390 mm	24'3"	6530 mm	21'5"
Minimum Loading Height	2190 mm	7'2"	3070 mm	10'1"
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	8080 mm	26'6"	6640 mm	21'9"
Maximum Vertical Wall Digging Depth	5840 mm	19'2"	4360 mm	14'4"
Bucket Digging Force (ISO)	268 kN	60,160 lbf	291 kN	65,480 lbf
Stick Digging Force (ISO)	183 kN	41,090 lbf	240 kN	53,850 lbf

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.00 kg of refrigerant which has a CO₂ equivalent 1.430 metric tonne.

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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(N Am, Europe)

