



Cat[®] 330

Hydraulic Excavator

The Cat[®] 330 Excavator has the speed, efficiency, and power for your heavy-duty applications requiring maximum productivity. You get built-in Cat GRADE with 2D, Grade Assist, and Payload as standard equipment right from the factory – boosting your operator efficiency by up to 45 percent. Combine these features with a new cab, longer maintenance intervals and increased fuel efficiency, and you have a low-cost-per-unit-of-production excavator built for your heavy-duty applications.

Not all features are available in all regions. Consult your Cat dealer for specific configurations available in your region.

High Performance Digging and Lifting

- Increase fuel efficiency up to 20 percent over the 330F Excavator.
- Lift more with up to nine percent improved lift capacity and increased bucket size over the 330F Excavator.
- Make working on slopes easier with five percent improved swing torque over the 330F Excavator.
- Increase operating efficiency up to 45 percent with standard Cat Connect technologies that lower operator fatigue and your operating costs, including fuel consumption and daily maintenance.
- The C7.1 engine can run on biodiesel up to B20 and meets U.S. EPA Tier 4 Final, EU Stage IV, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final emission standards with an aftertreatment system that requires no maintenance or downtime.
- The advanced hydraulic system provides the optimum balance of power and efficiency while giving you the control you need for precise digging requirements.
- Match the excavator to the job with power modes; let Smart mode automatically match engine and hydraulic power to digging conditions.
- Advansys™ bucket tips increase penetration and improve cycle times. Tip changes can be done quickly with a simple lug wrench instead of a hammer or special tool, improving safety and uptime.
- Auxiliary hydraulic options give you the versatility to use a wide range of Cat attachments.
- Available SmartBoom™ lets the boom freely travel up and down without using any pump flow so operators can focus on stick and bucket work. The benefits are reduced operator stress and reduced fuel consumption.
- Don't let the temperature stop you from working. The excavator has a standard high-ambient temperature capability of 52° C (125° F) with de-rate and cold start capability of -18° C (0° F). An optional -32° C (-25° F) cold start package is available.

Boost Efficiency and Boost Productivity with Integrated Cat Connect Technologies

- Boost productivity up to 45 percent versus traditional grading with standard Cat GRADE with 2D system – includes indicate-only and laser capability.
 - Dig with guidance to depth, slope, and horizontal distance to grade. You can set up to four different target depth and slope offsets to help save time and money. When the job calls for a different offset, quickly switch through the monitor and get to work.
 - The 2D system is upgradable to Cat GRADE with Advanced 2D or Cat GRADE with 3D.
- Standard Grade Assist:
 - 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 for easy, accurate, and fast jobs.
 - Keep the tracks on ground in lifting and hard digging with Boom Assist.
 - Automatically stop excavator swing at operator-defined set points in truck loading and trenching applications with Swing Assist, which will help you use less effort and consume less fuel.
- Standard Cat PAYLOAD on-board weighing system:
 - Achieve precise load targets and increase loading efficiency with on-the-go weighing and real-time estimates of your payload without swinging.
 - Track your daily productivity such as truck target weights and load/cycle counts.
 - Calibration can be performed in a matter of minutes.
 - Combine Payload with VisionLink[®] and remotely manage your production targets.
- Upgrade to optional Cat GRADE with Advanced 2D:
 - Create and edit grade designs with ease on a second high-resolution 254 mm (10 in) touchscreen monitor.



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- Upgrade to optional Cat GRADE with 3D:
 - 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.
 - Use the excavator’s onboard cell technology to quickly connect to 3D services like TCC or VRS.
 - 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.
 - Antennas have theft-prevention bolts; a special tool makes them easy for the owner to remove at the end of a shift.
- The standard 2D E-fence feature integrated right out of the factory prevents the excavator from moving outside operator-defined set points.
- Standard Product Link™ collects data automatically and accurately from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.

Work in Comfort in the All-New Cab

- Choose between Deluxe and Premium cabs – both with automatic climate control.
- The Deluxe seat is heated and air adjustable. The Premium seat is heated and cooled and adjusts automatically.
- Get in and out of the cab easier using the tip-up left console.
- Advanced viscous mounts reduce cab vibration up to 50 percent over previous excavator models.
- 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, document holder, bottle holder, and coat hook are also provided.
- Use the standard radio’s USB ports and Bluetooth® technology to connect personal devices and make hands-free calls.

Simple to Operate

- Start the engine with a push button; use a Bluetooth key fob, smartphone app, or the unique Operator ID function.
- Program your power mode and joystick preferences using Operator ID; the excavator will remember what you set each time you go to work.
- Navigate quickly on the standard high-resolution 203 mm (8 in) touchscreen monitor, or with the optional 254 mm (10 in) touchscreen monitor, or with the aid of the jog dial control.
- A second 254 mm (10 in) monitor is available for the advanced grade control.
- 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.
- Find the tool you need – even if it’s hidden beneath overgrowth or debris. The excavator’s onboard Bluetooth reader can search for any work tool equipped with Cat asset tracking devices up to a range of 60 m (200 ft).

Maintenance

- Expect up to 20 percent less maintenance cost than the 330F. (Savings calculated over 12,000 machine hours.)
- Do all daily maintenance at ground level.
- Check engine oil level quickly and safely with the new ground-level engine oil dipstick; fill and check engine oil on top of the machine with a conveniently located second dipstick.
- Track your excavator’s filter life and maintenance intervals via the in-cab monitor.
- No required maintenance on the Cat Clean Emissions Module.
- Change all fuel filters at a synchronized 1,000 hours – a 100 percent increase over the 330F fuel filters.
- Expect the new air intake filter with precleaner to last up to 1,000 hours – a 100 percent increase over the previous filter.
- The new 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.
- High-efficiency cooling fans run only when needed; you can program intervals so they automatically reverse to keep cores clean without interrupting your work.
- S-O-SSM ports are on ground level, simplifying maintenance and allowing for quick, easy extraction of fluid samples for analysis.

Safety

- Lift Assist helps you avoid tipping. With visual and auditory alerts, you’ll know if your load is within the excavator’s safe working range limits.
- Access 100 percent of daily maintenance points from ground level – no need for you to climb on top of the excavator.
- The standard ROPS cab meets ISO 12117-2:2008 requirements.
- Enjoy great visibility into the trench, in each swing direction, and behind you with the help of smaller cab pillars, larger windows, and a flat engine hood design.
- The standard hydraulic lockout lever isolates all hydraulic and travel functions in the lowered position.
- Ground-level shut-off switch stops all fuel to the engine when activated and shuts down the machine.
- A rearview camera and a right-side-view camera are standard. Upgrade to 360° visibility and you’ll easily visualize objects and personnel around the excavator in a single view.
- New right service platform design provides easy, safe, and quick access to upper service platform; the service platform steps use anti-skid punch plate to prevent slipping.
- Available boom and stick lowering check valves prevent reverse flow, keeping your front linkage securely in place should the hydraulic system unexpectedly lose power.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
CAB			BOOMS AND STICKS		
ROPS, standard sound suppression (Deluxe only)	✓		6.15 m (20'2") reach boom, 3.2 m (10'6") reach stick	✓	
ROPS, advanced sound suppression (Premium only)	✓		6.15 m (20'2") reach boom, 2.65 m (8'8") reach stick		✓
Air-adjustable seat with heat (Deluxe only)	✓		10.2 m (33'6") SLR boom, 7.85 m (25'9") SLR stick		✓
Auto-adjustable seat with heat and air ventilation (Premium only)		✓	UNDERCARRIAGE AND STRUCTURES		
High-resolution 203 mm (8 in) LCD touchscreen monitor	✓*		600 mm (24") triple grouser shoes		✓
High-resolution 254 mm (10 in) LCD touchscreen monitor	✓	✓*	700 mm (28") triple grouser shoes		✓
*Korea only			800 mm (31") triple grouser shoes		✓
CAT CONNECT TECHNOLOGY			Tie-down points on base frame	✓	
Cat Product Link	✓		6700 kg (14,770 lb) counterweight	✓	
Cat GRADE with 2D	✓		ELECTRICAL SYSTEM		
Cat GRADE with Advanced 2D		✓	Two 1,000 CCA maintenance free batteries	✓	
Cat GRADE with 3D		✓	Programmable time-delay LED working lights	✓	
Cat GRADE with Assist	✓		LED chassis light, left-hand/right-hand boom lights, cab lights	✓	
Cat PAYLOAD	✓		SERVICE AND MAINTENANCE		
2D E-Fence	✓		Sampling ports for Scheduled Oil Sampling (S-O-S)	✓	
ENGINE			Ground-level and platform-level engine oil dipsticks	✓	
Three selectable power modes	✓		Electric refueling pump with auto shut off		✓
One-touch low idle with automatic engine speed control	✓		SAFETY AND SECURITY		
Auto engine idle shutdown	✓		Rearview camera	✓	
52° C (125° F) high-ambient cooling capacity with de-rate	✓		Right-side-view camera	✓	
-32° C (-25° F) cold start capability		✓	360° visibility		✓
Double element air filter with integrated precleaner	✓		Lift Assist	✓	
Reversing electric cooling fans	✓		Ground-level engine shutoff switch	✓	
Biodiesel capability up to B20	✓		Right-hand handrail and hand hold	✓	
HYDRAULIC SYSTEM			Signaling/warning horn	✓	
Boom and stick regeneration circuits	✓				
Auto hydraulic warm up	✓				
Auto two-speed travel	✓				
Boom and stick drift reduction valve	✓				
Boom and stick lowering check valves		✓			
Hammer return filter circuit		✓			
Advanced Tool Control (two pump, one/two way high-pressure flow)	✓*	✓			
Medium-pressure circuit		✓			
Quick coupler circuit		✓			
*Europe only					

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.

For additional information and additional regional offerings, refer to the Technical Specifications brochure available at www.cat.com or your Cat dealer.

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Technical Specifications

Engine		
Engine Model	Cat C7.1	
Gross Power – ISO 14396/SAE J1995	205 kW	275 hp
Net Power – ISO 9249	204 kW	273 hp
Net Power – SAE J1349	203 kW	272 hp
Engine RPM		
Operation	1,750 rpm	
Travel	1,750 rpm	
Bore	105 mm	4 in
Stroke	135 mm	5 in
Displacement	7.01 L	428 in ³

Hydraulic System		
Main System – Maximum Flow – Implement	560 L/min	148 gal/min
Maximum Pressure – Equipment – Normal	35 000 kPa	5,075 psi
Maximum Pressure – Equipment – Heavy Lift Mode	38 000 kPa	5,510 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	29 800 kPa	4,320 psi

Machine Weights		
Operating Weight – 800 mm (31") Triple Grouser Shoes	30 900 kg	68,125 lb
• Reach boom, R3.2 m (10'6") stick, HD 1.76 m ³ (2.30 yd ³) bucket, 800 mm (31") triple grouser shoes and 6700 kg (14,770 lb) counterweight.		
Operating Weight – 600 mm (24") Triple Grouser Shoes	29 900 kg	65,920 lb
• Reach boom, R3.2 m (10'6") stick, HD 1.76 m ³ (2.30 yd ³) bucket, 600 mm (24") triple grouser shoes and 6700 kg (14,770 lb) counterweight.		

Service Refill Capacities		
Fuel Tank	474 L	125.2 gal
Cooling System	25 L	6.6 gal
Engine Oil	25 L	6.6 gal
Swing Drive	10 L	2.6 gal
Final Drive (each)	5.5 L	1.5 gal
Hydraulic System (including tank)	310 L	81.9 gal
Hydraulic Tank	147 L	38.8 gal
DEF Tank	41 L	10.8 gal

Dimensions		
Boom	Reach 6.15 m (20'2")	
Stick	Reach 3.2 m (10'6")	
Bucket	HD 1.76 m³ (2.30 yd³)	
Shipping Height (top of cab)	3060 mm	10'1"
Handrail Height	3060 mm	10'1"
Shipping Length	10 420 mm	34'2"
Tail Swing Radius	3130 mm	10'3"
Track Length to Center of Rollers	3990 mm	13'1"
Ground Clearance	490 mm	1'7"
Track Gauge	2590 mm	8'6"
Track Gauge – Narrow Undercarriage	2390 mm	7'10"
Transport Width – 600 mm (24") Shoes	3190 mm	10'6"
Transport Width – 600 mm (24") Shoes – Narrow Undercarriage	2990 mm	9'10"
Transport Width – 800 mm (31") Shoes	3390 mm	11'1"
Counterweight Clearance	1120 mm	3'8"

Working Ranges and Forces		
Boom	Reach 6.15 m (20'2")	
Stick	Reach 3.2 m (10'6")	
Bucket	HD 1.76 m³ (2.30 yd³)	
Maximum Digging Depth	7240 mm	23'9"
Maximum Reach at Ground Level	10 680 mm	35'1"
Maximum Cutting Height	10 030 mm	32'11"
Maximum Loading Height	6950 mm	22'10"
Minimum Loading Height	2300 mm	7'7"
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	7090 mm	23'3"
Maximum Vertical Wall Digging Depth	6010 mm	19'9"
Bucket Digging Force (ISO)	179 kN	40,200 lbf
Stick Digging Force (ISO)	126 kN	28,300 lbf
Bucket Digging Force (SAE)	157 kN	35,300 lbf
Stick Digging Force (SAE)	123 kN	27,700 lbf

Air Conditioning System		
<ul style="list-style-type: none"> The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.9 kg of refrigerant which has a CO₂ equivalent of 1287 metric tonnes. 		

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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