



# Cat<sup>®</sup> 315F

## Hydraulic Excavator

***The Cat<sup>®</sup> 315F Excavator is a productive and highly versatile solution for your medium-duty applications. Its compact radius design allows you to work in tight spaces without compromising performance. The powerful hydraulic system increases productivity, making the 315F Excavator a top performer in the 15-ton size class.***

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

### High Performance and Productivity

- Increase productivity and get the job done with a powerful and efficient negative flow control hydraulic system. Major components are located close together creating less friction, reducing pressure drops, and increasing power to the ground.
- The Cat C4.4 engine using ACERT™ technologies can run on biodiesel up to B20 and meets U.S. EPA Tier 4 Final and EU Stage IV emission standards.
- Two power modes – eco and high power – help you manage fuel consumption.
- Lower your load point and maximize the power built into the boom cylinders. The power link between the stick and bucket is designed for heavy-duty lifting over the long haul.
- Reduce engine speed and minimize fuel consumption during no-load or light-load conditions with automatic engine speed control (AEC).
- Optional engine idle shutdown allows you to set intervals so you don't waste fuel.
- Work at altitudes up to 2300 m (7,545 ft) above sea level without de-rating.
- Save energy and improve fuel efficiency with boom and stick oil regeneration. This feature improves controllability, increases productivity, and reduces operating costs.
- Don't let the temperature stop you from working. Standard cold start capability is -18° C (0° F) and an optional cold start package of -25° C (-13° F) is also available.

### Versatility Keeps You Productive and Profitable

- Work confidently in space-restricted areas. Dig, swing, and dump within a working space of 3.8 m (12'5").
- Reduce the front swing radius and increase lift capacity with the boom positioned toward the center of the machine.

- Increase productivity while working in narrow and restricted spaces with an optional power offset boom which allows you to load and dump from the same position.
- Transition quickly between attachments with optional auxiliary hydraulics.
- Expand your work capabilities with attachments for a variety of applications including breaking rock in quarries, preparing trenches, taking down bridge pillars and reinforced concrete on road jobs, and moving and handling brush, rock, and debris.
- Hydraulic kits can be added to properly operate attachments, maximizing machine uptime and profits.

### Reliability and Durability You Can Count On

- Count on your machine to withstand wear throughout the years. Boom, sticks, and other high-stress areas are reinforced with thick multi-plate fabrications, castings, and forgings to ensure quality and reliability.
- Thick chrome plating used on the front linkage pins provides high wear and corrosion resistance. The long pins distribute load weight to elongate pin, boom, and stick life.
- Protect your moving parts with the Grease Lubricated Track (GLT) undercarriage. Keep water, dust, and debris out and grease sealed in while prolonging wear life and reducing travel noise.
- Bottom guards protect machine components that may be damaged while swinging.
- Maintain track alignment and improve overall performance while traveling or working on slopes with guide guards.
- The upper frame uses specially designed mountings to support the heavy-duty cab and the lower frame is reinforced to enhance component durability.
- You are supported. The Cat Dealer Network is there to provide assistance when you need it.



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## Superior Serviceability

- Check coolant, hydraulic oil, and engine oil levels from the comfort of the cab with a pre-start monitoring system.
- Easily reach and quickly replace the protected fresh air filter located on the side of the cab. The door can only be locked and unlocked using the engine key.
- Check and service your machine faster with many ground-level routine service and maintenance points. Grouped filters and wide service doors allow easy access to the radiator, pump, air cleaner, and engine compartments.
- Change your oil without the use of tools with the incorporated engine oil drain valve.
- Eliminate manual priming and reduce the risk of fuel contamination with an electric fuel priming pump. The pump prevents unfiltered fuel from being backfilled during filter changes.
- Blowing out debris is easy with wide clearance between the radiator, oil cooler, and air conditioning condenser.

## Boost Efficiency and Productivity with Integrated Cat Connect Technologies

- 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.
- Boost productivity with optional Cat GRADE Control 2D Depth and Slope. Real-time bucket tip positioning and cut and fill data on the cab monitor to guide you to grade, saving money on fuel and materials.

## Unmatched Comfort

- Work comfortably in the spacious, quiet cab with automatic climate control; an adjustable, heated seat increases comfort and reduces operator fatigue.
- Control the excavator comfortably with easy to access controls and switches.
- Adjust the joystick consoles and armrests to a comfortable position.
- Navigate quickly on the standard LCD monitor which is programmable in 44 languages.
- Stow your gear with plenty of in-cab storage in the front, rear, and side consoles of the cab. A cup holder, document holder, and coat hook are also provided.
- Keep your personal devices conveniently charged using the standard 12V-5A power port.

## Safety

- Rollover Protection Structure (ROPS)-certified cab provides a safe work environment.
- Enter and exit the cab and walk on the upper structure safely with multiple large steps, extended handrails and anti-skid plating which are meant to reduce slipping and tripping.
- Increase visibility with a standard rearview camera and mirrors. The camera is integrated into the counterweight to protect against damage.
- Stay safe in an emergency situation. The skylight and 70/30 front window function as emergency exits.
- The hydraulic activation lever lock cuts the pilot pressure for the control levers, preventing the operator from starting the engine when in a locked position.
- Shut the engine down quickly and easily in the event of an emergency with a secondary engine shutoff switch.
- Protect yourself from overhead impact with the optional Falling Objects Guarding System (FOGS) and other attachments available from your Cat dealer.

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>BOOMS AND STICKS</b>			<b>HYDRAULIC SYSTEM</b>		
4.65 m (15'3") reach boom		✓	Boom and stick regeneration circuit	✓	
Variable angle boom		✓	Automatic swing brake	✓	
Power offset boom for 2.13 m (7'0") stick		✓	Fine swing control		✓
R3.0 m (9'10") stick		✓	High-performance hydraulic return filter	✓	
R2.8 m (9'2") stick		✓	Auxiliary hydraulics		✓
R2.5 m (8'2") stick		✓	Quick coupler line		✓
2.13 m (7'0") stick		✓	Boom lowering control device		✓
R2.1 m (6'11") stick		✓	Stick lowering check device		✓
<b>CAB</b>			Two-way control pattern changer		✓
ROPS, standard sound suppression	✓		Medium-pressure line		✓
Adjustable seat, armrest, and console	✓		High-pressure line		✓
Color LCD display	✓		<b>SAFETY AND SECURITY</b>		
Automatic climate control	✓		One key security system	✓	
AM/FM radio	✓		Door and cap locks	✓	
Travel control pedals with removable hand levers	✓		Lockable external tool/storage box	✓	
<b>CAT CONNECT TECHNOLOGY</b>			Signaling/warning horn	✓	
Cat Product Link	✓		Travel alarm	✓	
Cat GRADE Control – Depth and Slope		✓	Secondary engine shutoff switch	✓	
<b>ELECTRICAL SYSTEM</b>			Emergency boom down	✓	
12V, 5A power supply	✓		Openable skylight as emergency exit	✓	
Time delay function for boom and cab light	✓		Bolt-on FOGS		✓
Right-side boom light		✓	Rearview camera	✓	
<b>ENGINE</b>			Mirrors, rearview (frame – right)	✓	
C4.4 Tier 4 Final, Stage IV diesel engine	✓		<b>UNDERCARRIAGE AND STRUCTURES</b>		
Biodiesel capable up to B20	✓		3.56 mt (7,850 lb) counterweight	✓	
2300 m (7,500 ft) altitude capability	✓		Towing eye for diagonal lashing on base frame	✓	
Electric priming pump	✓		Grease Lubricated Track (GLT) with resin seal	✓	
Automatic engine speed control	✓		500 mm (20 in) triple grouser shoes		✓
Side-by-side cooling system	✓		600 mm (24 in) triple grouser shoes		✓
–18° C (0° F) cold start capability	✓		700 mm (28 in) triple grouser shoes		✓
–25° C (–13° F) cold start capability		✓	Rubber pad for 500 mm (20 in) triple grouser shoes		✓
Block heater capability	✓		Center track guiding guard	✓	
Engine idle shutdown function		✓	2500 mm (8'2") blade with replaceable cutting edge with lever control		✓
			2600 mm (8'6") blade with replaceable cutting edge with lever control		✓
			2700 mm (8'10") blade with replaceable cutting edge with lever control		✓

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## Technical Specifications

### Engine

Engine Model	Cat C4.4	
Gross Power – SAE J1995	74 kW	100 hp/101 PS
Net Power – SAE J1349/ISO 9249	72 kW	97 hp/98 PS
Engine Power – ISO 14396	74 kW	100 hp/101 PS
Bore	105 mm	4.1 in
Stroke	127 mm	5.0 in
Displacement	4.4 L	270 in <sup>3</sup>

### Hydraulic System

Main System – Maximum Flow (total)	256 L/min	67 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,420 psi
Maximum Pressure – Power Offset Boom (optional)	29 900 kPa	4,340 psi
Maximum Pressure – Travel	35 000 kPa	5,080 psi
Maximum Pressure – Swing	23 000 kPa	3,340 psi
Pilot System – Maximum Flow	21.9 L/min	4.8 gal/min
Pilot System – Maximum Pressure	4120 kPa	600 psi

### Machine Weights

Minimum Operating Weight	15 100 kg	33,296 lb
Maximum Operating Weight	17 140 kg	37,794 lb

### Service Refill Capacities

Fuel Tank Capacity	178 L	47.0 gal
DEF Tank Capacity	19 L	5.0 gal
Cooling System	28 L	7.40 gal
Engine Oil (with filter)	13.5 L	3.6 gal
Swing Drive (each)	2.4 L	0.6 gal
Final Drive (each)	3 L	0.8 gal
Hydraulic System (including tank)	160 L	42.3 gal
Hydraulic Tank	84 L	22.2 gal

### Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.6 kg of refrigerant which has a CO<sub>2</sub> equivalent of 0.858 metric tonnes.

### Dimensions

<b>Boom</b>	<b>Reach Boom – 4.65 m (15'3")</b>	
<b>Stick</b>	<b>R3.0 m (9'10")</b>	
<b>Bucket</b>	<b>GD 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>)</b>	
Shipping Height	3000 mm	9'10"
Shipping Length with Blade	8010 mm	26'3"
Tail Swing Radius	1530 mm	5'0"
Length to Center of Rollers	3040 mm	10'0"
Track Length	3750 mm	12'4"
Ground Clearance	440 mm	1'5"
Track Gauge	1990 mm	6'6"
Transport Width – 600 mm (24") Shoes	2590 mm	8'6"
Cab Height	2810 mm	9'3"
Cab Height with Top Guard	2950 mm	9'8"
Counterweight Clearance	860 mm	2'10"

### Working Ranges

<b>Boom</b>	<b>Reach Boom – 4.65 m (15'3")</b>	
<b>Stick</b>	<b>R3.0 m (9'10")</b>	
<b>Bucket</b>	<b>GD 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>)</b>	
Maximum Digging Depth	5950 mm	19'6"
Maximum Reach at Ground Level	8680 mm	28'6"
Maximum Cutting Height	9640 mm	31'8"
Maximum Loading Height	7190 mm	23'7"
Minimum Loading Height	2060 mm	6'9"
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5770 mm	18'11"
Maximum Vertical Wall Digging Depth	5280 mm	17'4"
Bucket Digging Force (SAE)	85 kN	19,200 lbf
Bucket Digging Force (ISO)	95.3 kN	21,420 lbf
Stick Digging Force (SAE)	57 kN	12,800 lbf
Stick Digging Force (ISO)	58.4 kN	13,130 lbf

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