



Cat[®] 313F GC

Hydraulic Excavator

The Cat[®] 313F GC excavator is a powerful and reliable, low-cost-per-hour solution for your light to medium duty application. Featuring a fuel-efficient Cat C3.4B engine, simplified hydraulic system, and robust frames and components, the 313F GC provides you savings and peace of mind.

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

High Performance with Lower Fuel Consumption

- Automatically reduce your engine speed and minimize fuel consumption during no-load or light-load conditions with automatic engine speed control (AEC).
- Standard one-touch low idle saves fuel by instantly reducing engine speed to 1,100 rpm at the push of a button. Return the engine speed to the throttle position by hitting the button again or simply moving the joysticks.
- The Cat C3.4B engine meets U.S. EPA Tier 4 Final and EU Stage IIIB emission standards and is equipped with turbo protection and a maintenance-free emissions package that enhances service life.
- The engine does not require diesel exhaust fluid (DEF).
- Work at altitudes up to 2300 m (7,545 ft) above sea level without de-rating.
- Don't let the cold stop your work. The machine features standard cold start capability of -18°C (0°F). An optional cold start package of -25°C (-13°F) is also available.
- Calculate your exact work demands to deliver the stick and bucket force needed to get work done with a load-sensing pump and main control valve.
- Reduce emissions, save fuel, and extend your service intervals with engine idle shutdown.
- 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.

Reduced Maintenance Costs

- Spend more time working and less time greasing. Front linkage greasing intervals are 500 hours.
- Reduce friction and pressure drops with a simplified hydraulic layout. The Flow Summation System uses shorter tubes and lines and includes a pilot manifold in the valve block eliminating the need for a pilot pump and filter.

- Reduce your filter maintenance time. The low-pressure fuel system and manual priming pump reduce the need for multiple filters and the engine's diesel particulate filter is compact and maintenance free.
- Two levels of fuel filtration protect the engine from dirty diesel fuel.
- 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.
- Easily clean the redesigned cooling package. Wider clearance is provided between the radiator, oil cooler, and air conditioning condenser making it easy to blow off debris with an air nozzle.

Reliability and Durability you can Count on

- Count on your machine to withstand wear throughout the years. Boom and sticks are built with internal baffle plates and are robot welded. High-stress areas are manufactured with large box-section structures made of thick multi-plate fabrications, castings, and forgings.
- The upper frame uses specially designed mountings to support the heavy-duty cab and the lower frame is reinforced to enhance component durability.
- Robust bottom guards protect machine components that may be damaged while swinging and hydraulic snubbers in the boom.
- Stick cylinders reduce end-of-stroke impact prolonging the machine life.
- Stay balanced in a variety of applications with the standard 2.45 mt (2.7 t) counterweight.
- The front linkage pins' inner bearing surfaces are welded with a self-lubricating bearing to extend service intervals and increase your machine's uptime.
- Increase durability and experience smooth load transitions with long welded track frames.
- Elongated bolts secure the large swing bearing to help handle the most swing-intensive work.
- You are supported. The Cat Dealer Network is there to provide assistance when you need it.



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Unmatched Comfort

- Work comfortably and safely in a spacious and quiet cab that provides excellent visibility from the operator's seat to keep you aware of your surroundings. An updated, adjustable seat increases comfort and reduces operator fatigue.
- Control the excavator comfortably with easy to access controls and switches.
- Navigate quickly on the standard LCD monitor which is programmable in 42 languages.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, and overhead. A cup holder, document holder, and coat hook are also provided.
- The heating ventilation air cooling (HVAC) system reduces noise levels and automatic climate control helps maintain a consistent cab temperature.
- Adjust the joystick consoles and armrests to a position comfortable for you.
- Use the standard auxiliary audio port to connect personal devices.

Safety

- Rollover Protection Structure (ROPS)-certified cab provides a safe work environment.
- The hydraulic activation lever locks out all hydraulic functions.
- Enter and exit the cab and walk on the upper structure safely with handrails, anti-skid plating and countersunk bolts which are meant to reduce slipping and tripping.
- Fan guards reduce the risk of coming into contact with the engine cooling fan.
- Shut the engine down quickly and easily in the case of emergency with the ground-level engine shutoff switch.
- Stay safe in the case of emergency. The rear window features a secondary exit system.
- Increase visibility with the optional rear-view camera and mirrors.
- Protect yourself from overhead impacts with the optional Falling Objects Guarding System (FOGS).

Versatile Solution for Light to Medium Duty Applications

- Quickly and easily change attachments with optional auxiliary hydraulics.
- Expand your work capabilities with a variety of attachments including thumbs, buckets, hammers, and couplers.
- Cat dealers can install hydraulic kits to properly operate attachments, maximizing machine uptime and profits.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
BOOM AND STICKS			SERVICE AND MAINTENANCE		
4.65 m (15'3") reach boom	✓		S-O-S SM sampling port for coolant	✓	
R3.0 m (9'10") stick		✓	SAFETY AND SECURITY		
R2.5 m (8'2") stick		✓	One key security system	✓	
CAB			Cap locks on fuel tanks	✓	
ROPS, standard sound suppression	✓		Lockable external tool/storage box	✓	
Mechanically adjustable seat, armrest, and console	✓		Signaling/warning horn	✓	
109 mm (4.3 in) color LCD monitor	✓		Secondary engine shutoff switch	✓	
Automatic climate control	✓		Rear window emergency exit	✓	
Auxiliary audio port	✓		Bolt-on FOGS		✓
Travel control pedals with removable hand levers	✓		Rearview camera		✓
CAT CONNECT TECHNOLOGY			Rearview, right-side, and left-side mirrors	✓	
Cat Product Link	✓		UNDERCARRIAGE AND STRUCTURES		
ELECTRICAL SYSTEM			2.45 mt (2.7 t) counterweight	✓	
12V, 10A power supply	✓		Towing eye on base frame	✓	
Left-side boom light	✓		Grease lubricated track (GLT2) with resin seal	✓	
Halogen right-side boom light		✓	500 mm (20 in) triple grouser shoes		✓
Cab light with time delay	✓		600 mm (24 in) triple grouser shoes		✓
ENGINE			700 mm (28 in) triple grouser shoes		✓
C3.4B Tier 4 Final, Stage IIIB diesel engine	✓		Rubber pad for 500 mm (20 in) triple grouser shoes		✓
2300 m (7,500 ft) altitude capability	✓		Segmented two-piece track guiding guard		✓
Manual priming pump	✓		2500 mm (8'2") blade with replaceable cutting edge		✓
Automatic engine speed control	✓		2700 mm (8'10") blade with replaceable cutting edge		✓
Side-by-side cooling system	✓		HYDRAULIC SYSTEM		
-18° C (0° F) cold start capability	✓		Boom and stick regeneration control	✓	
-25° C (-13° F) cold start capability		✓	Reverse swing dampening valve	✓	
Engine idle shutdown function	✓		Automatic swing brake	✓	
HYDRAULIC SYSTEM			High-performance hydraulic return filter	✓	
Boom and stick regeneration control	✓		Auxiliary hydraulics		✓
Reverse swing dampening valve	✓		Quick coupler line		✓
Automatic swing brake	✓		Boom and stick lowering control valve		✓
High-performance hydraulic return filter	✓		Boom and stick drift reduction valve		✓
Auxiliary hydraulics		✓	Two-way control pattern changer		✓
Quick coupler line		✓	Medium-pressure line		✓
Boom and stick lowering control valve		✓	High-pressure line		✓
Boom and stick drift reduction valve		✓			
Two-way control pattern changer		✓			
Medium-pressure line		✓			
High-pressure line		✓			

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Engine

Engine Model	C3.4B	
Gross Power – SAE J1995	55 kW	74 hp
Net Power – SAE J1349/ ISO 9249	52 kW	70 hp
Engine rpm		
Operation	1,700 rpm	
Travel	1,800 rpm	
Bore	99 mm	3.90 in
Stroke	110 mm	4.33 in
Displacement	3.4 L	207 in ³
<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 1.287 metric tonnes. 		

Hydraulic System

Main System – Maximum Flow (total)	240 L/min	63.4 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,424 psi
Maximum Pressure – Travel	30 500 kPa	4,424 psi
Maximum Pressure – Swing	23 000 kPa	3,336 psi
Pilot System – Maximum Pressure	4120 kPa	598 psi

Machine Weights

Operating Weight	13 300 kg	29,300 lb
<ul style="list-style-type: none"> Long undercarriage, reach boom, R3.0 (9'10") stick, GD 0.53 m³ (0.69 yd³) bucket, and 500 mm (20") shoes. 		

Service Refill Capacities

Fuel Tank Capacity	250 L	66.0 gal
Cooling System	17.9 L	4.7 gal
Engine Oil	8 L	2.1 gal
Swing Drive	3 L	0.8 gal
Final Drive	3 L	0.8 gal
Hydraulic System (including tank)	164 L	43.3 gal
Hydraulic Tank	90.6 L	23.9 gal

Dimensions

Boom	Reach Boom 4.65 m (15'3")	
Stick	R3.0 (9'10")	
Bucket	GD 0.53 m³ (0.69 yd³)	
Shipping Height	3150 mm	10'4"
Shipping Length	7620 mm	25'0"
Shipping Length with Blade	7970 mm	26'2"
Tail Swing Radius	2170 mm	7'0"
Length to Center of Rollers	3040 mm	10'0"
Track Length	3750 mm	12'4"
Ground Clearance	440 mm	1'5"
Track Gauge (shipping)	1990 mm	6'6"
Transport Width – 700 mm (28 in) Shoes	2690 mm	8'10"
Cab Height	2760 mm	9'1"
Cab Height with Top Guard	2900 mm	9'6"
Counterweight Clearance	900 mm	2'11"

Working Ranges

Boom	Reach Boom 4.65 m (15'3")	
Stick	R3.0 (9'10")	
Bucket	GD 0.53 m³ (0.69 yd³)	
Maximum Digging Depth	6030 mm	19'9"
Maximum Reach at Ground Line	8620 mm	28'3"
Maximum Cutting Height	8700 mm	28'6"
Maximum Loading Height	6340 mm	20'10"
Minimum Loading Height	1530 mm	5'0"
Maximum Depth Cut for 2240 mm (8 ft) Level Bottom	5850 mm	19'2"
Maximum Vertical Wall Digging Depth	5310 mm	17'5"
Bucket Digging Force (SAE)	86 kN	19,300 lbf
Stick Digging Force (SAE)	57 kN	12,800 lbf
Bucket Digging Force (ISO)	95 kN	21,400 lbf
Stick Digging Force (ISO)	58 kN	13,000 lbf

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