313F L Hydraulic Excavator





Engine			Drive		
Engine Model	Cat® C4.4	ACERT™	Maximum Travel Speed	5.5 km/h	3.7 mph
Net Power – SAE J1349	69 kW	92 hp	Maximum Drawbar Pull	114 kN	25,628 lb1
Gross Power – SAE J1995	74 kW	100 hp	Weights		
			Minimum Operating Weight	13 500 kg	29,770 lb
			Maximum Operating Weight	14 900 kg	32,850 lb

Introduction

The Cat® 313F L is a perfect choice for customers who value reliability, durability, and maximum efficiency to get work done. Powered by a U.S. EPA Tier 4 Final C4.4 ACERT engine, the machine features robust structures and a state-of-the-art hydraulic system that enable you to move material all day long with tremendous speed and precision.

The cab is ultra quiet and comes equipped with adjustable controls and seat to keep you comfortable and productive. It has easy-to-reach service points that make your routine maintenance fast and simple. Plus there is a full array of Cat work tools and auxiliary hydraulics to help you take on any task.

Bottom line: You just won't find a better, more efficient 13-ton excavator from any manufacturer — any place, anywhere.

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Engine

Powerful and fuel efficient to meet your expectations

Proven Technology

The Cat C4.4 ACERT engine meets Tier 4 Final emission standards, and it does so without interrupting your job process. Simply turn the engine on and go to work. It will look for opportunities in your work cycle to regenerate itself, and it will give you plenty of power for the task at hand – all to help keep your owning and operating costs to an absolute minimum.

Like every Cat Tier 4 Final engine, the C4.4 ACERT engine is equipped with a combination of proven electronic, fuel, air, and aftertreatment components. Applying these time-tested technologies lets us meet your high expectations for productivity, fuel efficiency, reliability, and service life.

Following are the results you can expect:

- Improved fluid efficiency of up to 5% over Tier 4 Interim products, including Diesel Exhaust Fluid (DEF) consumption.
- High performance across a variety of applications.
- Enhanced reliability through commonality and simplicity of design.
- Maximized uptime and reduced cost with worldclass Cat dealer support.
- Minimized impact on emission systems with no operator interaction required.
- Durability with long service life.
- Better fuel economy with minimized maintenance costs.
- Same great power and response.





A Powerful, Efficient Design

When it comes to moving material quickly and efficiently, you need hydraulic horsepower – the type of ground-breaking power the 313F L can deliver. Major hydraulic components like pumps and valves are located close together so shorter tubes and lines can be used. This design leads to less friction loss, reduced pressure drops, and more power to the ground for the work you need to get done.

Control Like No Other

Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the main control valve. The valve opens slowly when your range of joystick lever movement is small and opens rapidly when movement is high. It puts flow where you need it when you need it, which leads to smoother operation, greater efficiency, and lower fuel consumption.

Auxiliary Hydraulics For Added Versatility

Auxiliary hydraulics give you greater tool versatility so you can take on more work with just one machine, and there are several options from which you can choose. A quick coupler circuit, for example, will allow you to switch from one tool to another in a matter of minutes – all from the comfort and convenience of the cab.

Boom & Stick Oil Re-Circulation For Added Efficiency

The 313F L regenerates the flow of oil from the head end of the boom and stick cylinders to the rod end of the boom and stick cylinders during the work cycle to save energy and improve fuel efficiency. It's optimized for any dial speed setting you select, which results in less pressure loss for higher controllability, more productivity, and lower operating costs for you.

Operator Station

Comfort and convenience to keep you productive

A Safe, Quiet Cab

The roll-over protective structure (ROPS) cab provides you with a safe working environment. It also contributes to your comfort because it's attached to a reinforced frame with special viscous mounts that limit vibration and unnecessary sound. Add in special roof lining and sealing and you have a cab that's as quiet inside as today's top pickup trucks.



The seat range includes air suspension, heated, and air cooled options. All seats include a reclining back, upper and lower slide adjustments, and height and tilt angle adjustments to meet your needs for maximum comfort.

A Cool & Warm Environment

The automatic climate control system features multiple air outlets with filtered ventilation. Air flows on the floor, behind the seat, and in front of you to make your work in either hot or cold weather much more pleasant and productive.

Controls Just For You

The right and left joystick consoles can be adjusted to improve your comfort and productivity during the course of a day.

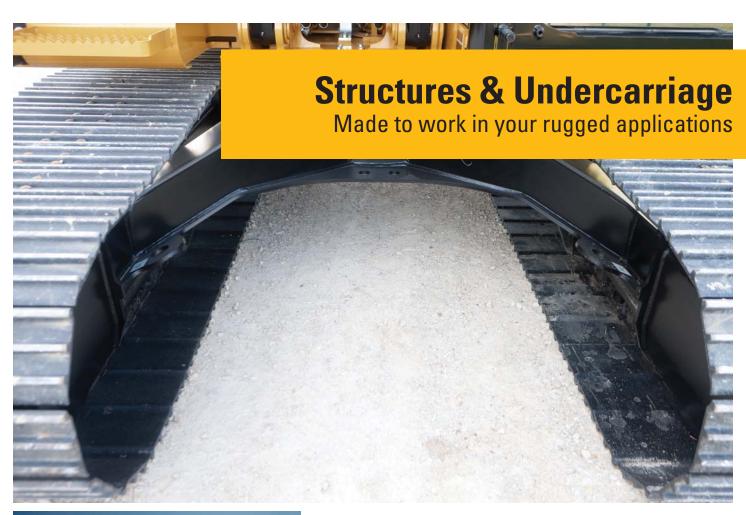
Also, the right joystick features a button that will reduce engine speed when you are not working to help save fuel. Touch it once and speed reduces; touch it again and speed increases for normal operation.



The LCD monitor is easy to see and navigate. Programmable in up to 42 languages to meet today's diverse workforce, the monitor clearly displays critical information you need to operate efficiently and effectively. Plus it projects the image from the standard rearview camera to help you see what's going on around you so you can stay safely focused on the job at hand.

Ample Storage & Auxiliary Power

Storage spaces are located in the front, rear, and side consoles of the cab. A drink holder accommodates a large mug, and a shelf behind the seat stores large lunch or toolboxes. Two 12-volt power supply sockets are conveniently located near the key storage areas for charging your electronic devices like an MP3 player, a cell phone, or a tablet.





Heavy Counterweight

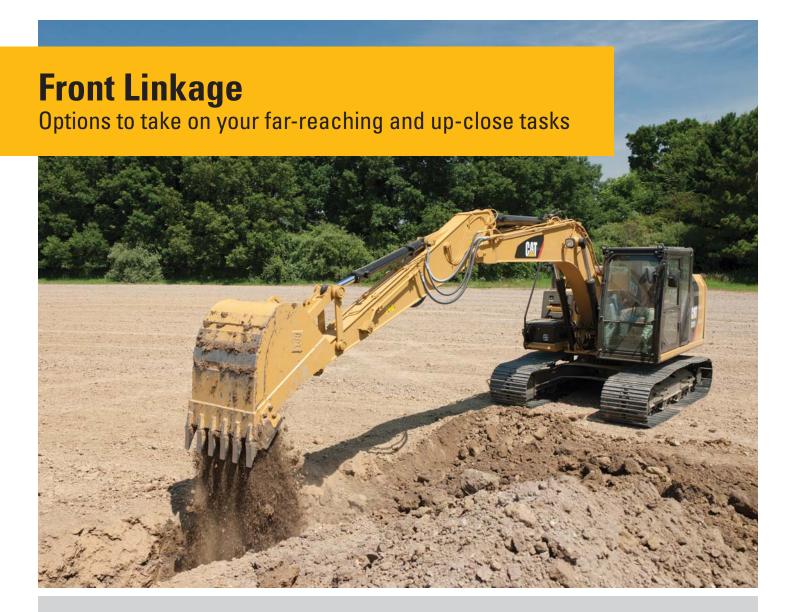
The counterweight is built with thick steel plates and reinforced fabrications to make it less susceptible to damage, and it has curved surfaces that match the machine's sleek, smooth appearance along with integrated housing to help protect the standard rearview camera.

Robust Frame

The 313F L is a well-built machine designed to give you a very long service life. The upper frame has mountings made specifically to support the heavy-duty cab; it is also reinforced around key areas that take on stress like the boom foot and skirt. Massive bolts are used to attach the track frames to the body, and additional bolts are used to increase the machine's digging force, which leads to more productivity for you.

Durable Undercarriage

The 313F L undercarriage contributes significantly to its outstanding stability and durability. Track shoes, links, rollers, idlers, and final drives are all built with long-lasting, high-tensile-strength steel. Cat Grease Lubricated Track 2 (GLT2) track link protects moving parts by keeping water, debris, and dust out and grease sealed in, which delivers longer wear life and reduced noise when traveling. Optional guide guards help maintain track alignment to improve the machine's overall performance — whether you're traveling on a flat, heavy bed of rock or a steep, wet field of mud.



Built To Last

Your uptime and service intervals are increased with high-quality, durable, reliable booms, sticks, and linkage. Each boom and stick is built with internal baffle plates for maximum durability, and each undergoes ultrasound inspection to ensure quality and reliability for the tough work you do.

Booms & Sticks

The 313F L is offered with a reach boom and two stick configurations: R2.8 m (9'2") and R3.0 m (9'10"). Also, a thumb-ready stick with factory brackets and structural reinforcement to attach a Cat hydraulic thumb to the machine is an available option. Each boom and stick is built with internal baffle plates for added durability, and each undergoes ultrasound inspection to ensure weld quality and reliability. Talk to your Cat dealer to pick the best front linkage for your specific applications.





Cat Connect

The smart use of technology and services will improve your job site efficiency. In fact, using data from technology-equipped machines gives you more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:

LINK Technologies

LINK technologies like Product LinkTM wirelessly connect you to your equipment, giving you valuable insight into how your machine or fleet is performing. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes through the online VisionLink[®] interface so you can make timely, fact-based decisions to maximize efficiency, improve productivity, and lower operating costs.

GRADE Technologies

GRADE technologies like Cat Grade Control Depth and Slope combine digital design data and in-cab guidance to help you work more productively and accurately with less rework. Real-time bucket tip positioning and cut and fill data on the standard cab monitor guide you to grade, saving money on fuel and materials. You can also easily upgrade to AccuGrade™ when 3D control is required.

Attachments

Tools to make you productive and profitable



Break, Demolish & Scrap

A hydraulic hammer equips your machine for breaking rock in quarries and preparing trenches on construction sites.

Taking down bridge pillars and heavily reinforced concrete is no problem. Multi-processor, pulverizer, and shear attachments take your machine into structure demolition jobs and process the debris for reuse and recycle.

Move & Handle

Add a thumb and you have the ability to move and handle brush, rocks, and debris. For constant material handling, a grapple is your solution. Choose from three different styles for picking, sorting, and loading trash, demolition debris, or recyclables.

Set Up Your Machine For Profitability

Your Cat dealer can install hydraulic kits to properly operate all Cat Work Tool attachments – maximizing the machine's uptime and your profits. All Cat Work Tool attachments are supported by the same Cat dealer network as your Cat machine.



Serviceability

Designed to make your maintenance quick and easy

Safe, Convenient Access

You can reach most routine maintenance items like fluid taps and grease points from the safety and convenience of ground level. You will also find filters banked together for higher service efficiency. Compartments feature wide service doors designed to help prevent debris entry, and they also securely latch in place to help make your service work simpler.

A Smart Design

The high-ambient cooling system features a fuel-saving variable-speed fan and a side-by-side-mounted radiator and oil and air coolers for easy cleaning. Wider clearance between the two makes blowing off debris easy for you, which can help improve your machine's reliability and performance.

A Fresh Idea

When you select ventilation inside the cab, outside air enters through the fresh air filter. The filter is conveniently located on the side of the cab to make it easy to reach and replace, and it is protected by a lockable door that can be opened with the engine key.

More Service Benefits

Filters are banked together to enhance service efficiency. The fuel tank's drain cock makes it easy and simple for you to remove water and sediment during routine maintenance. Plus an integrated fuel level indicator pops up to help you reduce the possibility of fuel tank overfilling.







Safety

Features to help protect you day in and day out







A Safe, Quiet Cab

The ROPS cab provides you with a safe working environment when properly seated and belted. It also contributes to your comfort because it's attached to a reinforced frame with special viscous mounts that limit vibration and unnecessary sound. Add in special roof lining and sealing and you have a cab that's as quiet inside as any of today's top pickup trucks.

Secure Contact Points

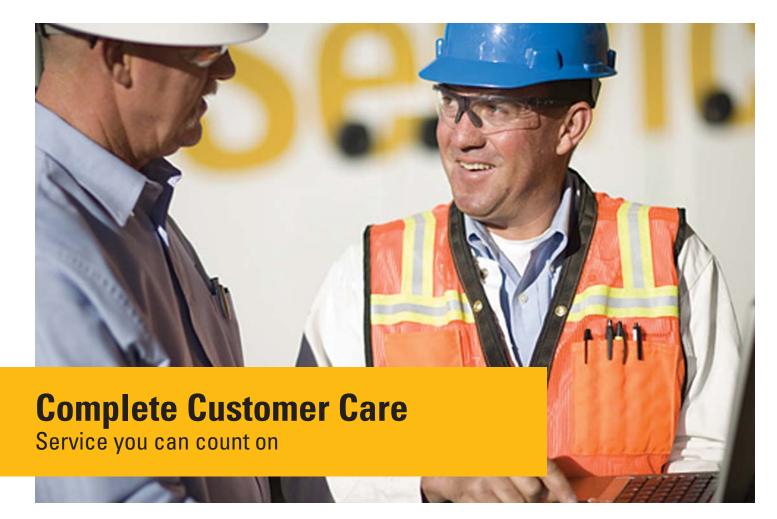
Multiple large steps get you into the cab as well as a leg up to the compartments. Extended hand and guard rails allow you to safely climb to the upper deck. Anti-skid plates reduce your slipping hazards in all types of weather conditions, and they can be removed for cleaning.

Great Views

Ample glass gives you excellent visibility out front and to the side, and the standard rearview camera gives you a clear field of view behind the machine through the cab monitor. The available split-configuration windshield features an upper window with handles that make it easy to slide and store above you and a lower window that can be removed and stored on the inside wall of the cab. The large skylight also serves as an emergency exit and provides you with enhanced overhead visibility.

Smart Lighting

Halogen lights provide plenty of illumination, and the cab and boom lights can be programmed to stay on for up to 90 seconds after the engine has been turned off to help you safely exit the machine.



Parts Where You Work

Cat dealers utilize a worldwide parts network to maximize your machines' uptime. Plus they can help you save money with Cat remanufactured components.

Advice You Can Trust

What are the job requirements and machine attachments? What production is needed? Your Cat dealer can provide recommendations to help you make the right machine choices.

Financial Options Just For You

Consider financing options and day-to-day operating costs. Look at dealer services that can be included in the machine's cost to yield lower owning and operating costs over time.

Support Agreements To Fit Your Needs

Cat dealers offer a variety of customer support agreements and work with you to develop a plan to meet your specific needs. These plans can cover the entire machine, including attachments, to help protect your investment.

Operating Techniques To Boost Your Profits

Improving operating techniques can boost your profits. Your Cat dealer has videos, literature, and other ideas to help you increase productivity. Caterpillar also offers simulators and certified operator training to help maximize the return on your investment.



Sustainability

Generations ahead in every way

- The C4.4 ACERT engine meets Tier 4 Final emission standards.
- The 313F L has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm of sulfur or less or biodiesel (up to B20) fuel blended with ULSD that meets ASTM 6751 standards.
- An overfill indicator rises when the fuel tank is full to help service technicians avoid spilling.
- The QuickEvac™ option ensures fast, easy, and secure changing of engine and hydraulic oil.
- The machine is built to be rebuilt with major structures and components capable of being remanufactured to reduce waste and replacement costs.
- An efficient engine oil filter eliminates the need for painted metal cans and aluminum top plates. The cartridge-style spin-on housing enables the internal filter to be separated and replaced; the used internal element can be incinerated to help reduce waste.
- The 313F L is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.

Engine		
Engine Model	Cat C4.4 AC	ERT
Net Power – SAE J1349	69 kW	92 hp
Gross Power – SAE J1995	74 kW	100 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5.00 in
Displacement	4.4 L	269 in ³

Weights			
Minimum Operating Weight*	13 500 kg	29,770 lb	-
Maximum Operating Weight**	15 000 kg	33,080 lb	

^{*4.65} m (15'3") boom, 2.8 m (9'2") stick, 2.2 mt (2.4 t) counterweight, 0.65 m³ (0.84 yd³) bucket, and 500 mm (20") shoes.

^{**4.65} m (15'3") boom, 3.0 m (9'10") stick, 2.2 mt (2.4 t) counterweight, 0.65 m³ (0.84 yd³) bucket, 700 mm (28") shoes with blade.

Hydraulic System		
nyuraunc System		
Main System – Maximum Flow (Total)	254 L/min	67 gal/min
Swing System – Maximum Flow	127 L/min	34 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,424 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	23 000 kPa	3,336 psi
Pilot System – Maximum Flow	21.9 L/min	5.8 gal/min
Pilot System – Maximum Pressure	4120 kPa	598 psi
Boom Cylinder – Bore	110 mm	4 in
Boom Cylinder – Stroke	1015 mm	40 in
Stick Cylinder – Bore	120 mm	5 in
Stick Cylinder – Stroke	1197 mm	47 in
Bucket Cylinder – Bore	100 mm	4 in
Bucket Cylinder – Stroke	939 mm	37 in
Drive		
Maximum Travel Speed	5.4 km/h	3.7 mph
Maximum Drawbar Pull	114 kN	25,628 lbf

11.5 rpm

 $30.9 \text{ kN} \cdot \text{m}$

22,791 lb ft

Service Refill Capacities		
Fuel Tank Capacity	223 L	58.9 gal
DEF Tank Capacity	21 L	5.4 gal
Cooling System	22 L	5.81 gal
Engine Oil (with filter)	13.5 L	3.57 gal
Swing Drive	2.4 L	0.63 gal
Final Drive (each)	3 L	0.79 gal
Hydraulic System (including tank)	164 L	43.32 gal
Hydraulic Tank	90.6 L	23.93 gal

Hack		
Number of Shoes (each side)		
Long Undercarriage	46 pieces	
Number of Track Rollers (each side)		
Long Undercarriage	7 pieces	
Number of Carrier Rollers (each side))	
Long Undercarriage	2 pieces	

Sound Performance	
Operator Noise (Closed) – ISO 6396	69 dB(A)
Spectator Noise – ISO 6395	101 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/ windows open) for extended periods or in noisy environment.

Standards	
Brakes	ISO 10265 2008
ROPS Cab	ISO 12117-2
Cab/OPG	ISO 10262 1998

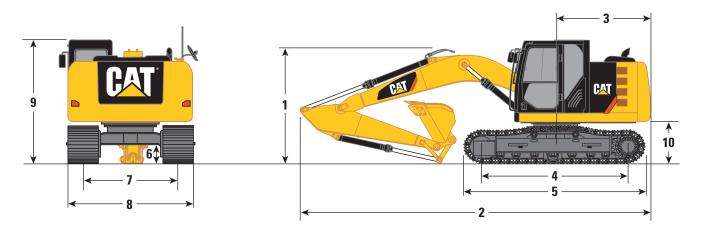
Swing Mechanism

Swing Speed

Swing Torque

Dimensions

All dimensions are approximate.



Boom Option	Reach Boom 4.65 m (15'3")				
Stick Options	R3.0 (9'10")		R2.8 (9'2")		
1 Shipping Height*	2980 mm	9'9"	2980 mm	9'9"	
Shipping Height at Boom Top	2830 mm	9'3"	2970 mm	9'9"	
Shipping Height with Guard Rail	2980 mm	9'9"	2980 mm	9'9"	
Shipping Height with Top Guard	2970 mm	9'9"	2970 mm	9'9"	
2 Shipping Length					
Long Undercarriage	7670 mm	25'2"	7650 mm	25'1"	
Long Undercarriage with Blade	7960 mm	26'1"	7920 mm	26'0"	
3 Tail Swing Radius	2160 mm	7'1"	2160 mm	7'1"	
4 Length to Center of Rollers					
Long Undercarriage	3040 mm	10'0"	3040 mm	10'0"	
5 Track Length					
Long Undercarriage	3750 mm	12'4"	3750 mm	12'4"	
6 Ground Clearance	440 mm	1'5"	440 mm	1'5"	
7 Track Gauge	1990 mm	6'6"	1990 mm	6'6"	
8 Transport Width					
500 mm (20") Shoes	2490 mm	8'2"	2490 mm	8'2"	
600 mm (24") Shoes	2590 mm	8'6"	2590 mm	8'6"	
700 mm (28") Shoes	2690 mm	8'10"	2690 mm	8'10"	
9 Cab Height	2770 mm	9'1"	2770 mm	9'1"	
Cab Height with Top Guard	2970 mm	9'9"	2970 mm	9'9"	
10 Counterweight Clearance**	890 mm	2'11"	890 mm	2'11"	

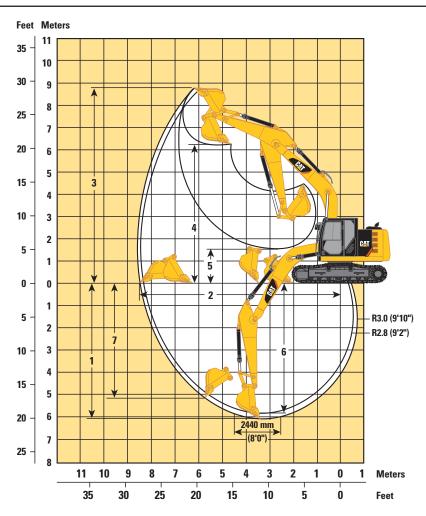
^{*}Including shoe lug height.

All dimensions calculated with 0.53 $\rm m^3$ (0.69 yd³), 900 mm (35") bucket.

^{**}Without shoe lug height.

Working Ranges

All dimensions are approximate.



Boom Option	Reach Boom 4.65 m (15'3")				
Stick Options	R3.0 (9	R3.0 (9'10")		R2.8 (9'2")	
1 Maximum Digging Depth	6040 mm	19'10"	5840 mm	19'2"	
2 Maximum Reach at Ground Level	8620 mm	28'3"	8430 mm	27'8"	
3 Maximum Cutting Height	8710 mm	28'7"	8590 mm	28'2"	
4 Maximum Loading Height	6330 mm	20'9"	6210 mm	20'4"	
5 Minimum Loading Height	1530 mm	5'0"	1730 mm	5'8"	
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5860 mm	19'3"	5650 mm	18'6"	
7 Maximum Vertical Wall Digging Depth	5200 mm	17'1"	5070 mm	16'8"	

All ranges calculated with 0.53 $\rm m^3$ (0.69 yd³), 900 mm (35") bucket.

Operating Weight and Ground Pressure

	•	• • • • • • • • • • • • • • • • • • • •		700 mm (28") Triple Grouser Shoes				· ·		· ,		•
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)						
Long Undercarriage w	rithout Blade											
Reach Boom – 4.65 r	m (15'3")											
R3.0 (9'10")	14 100 (31,090)	30.0 (4.35)	13 800 (30,430)	34.2 (4.97)	13 500 (29,770)	40.2 (5.83)						
R2.8 (9'2")	14 000 (30,870)	29.8 (4.32)	13 800 (30,430)	34.2 (4.97)	13 500 (29,770)	40.2 (5.83)						
Long Undercarriage w	vith Blade											
Reach Boom – 4.65 r	n (15'3")											
R3.0 (9'10")	14 900 (32, 850)	31.7 (4.60)	14 600 (32,190)	36.2 (5.26)	14 400 (31,750)	42.9 (6.22)						
R2.8 (9'2")	14 900 (32,850)	31.7 (4.60)	14 600 (32,190)	36.2 (5.26)	14 300 (31,530)	42.6 (6.18)						

All weights are rounded up to nearest 100 kg and lb including General Duty 0.65 m³ (0.84 yd³) bucket (470 kg/1,040 lb).

Major Component Weights

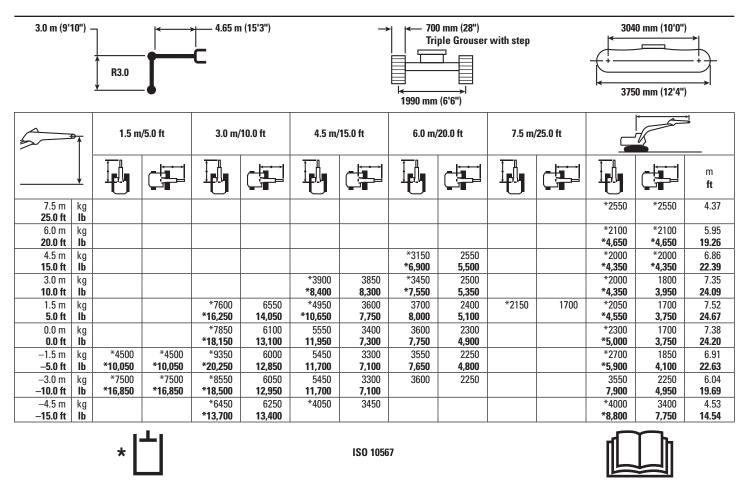
	kg	lb
Base Machine (with boom cylinder, without counterweight, front linkage and track)	5120	11,290
Long Undercarriage	2600	5,730
Counterweight 2.2 mt (2.4 t)	2200	4,850
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 4.65 m (15'3")	1010	2,230
Stick (includes lines, pins, bucket cylinder, and bucket linkage)		
R3.0 (9'10")	560	1,230
R2.8 (9'2")	530	1,170
R3.0 (9'10") for Thumb	610	1,350
Track Shoe (Long/per two tracks)		
500 mm (20") Triple Grouser	1560	3,440
600 mm (24") Triple Grouser	1820	4,010
700 mm (28") Triple Grouser	2100	4,630
Blade		
2600 mm (8'6")	810	1,790
2700 mm (8'10")	820	1,810

All weights are rounded up to nearest 10 kg and lb except for buckets. Kg and lb were rounded up separately so some of the kg and lb do not match. Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

Bucket and Stick Forces

Boom Option	Reach Boom 4.65 m (15'3")						
Stick Options	R3.0	R3.0 (9'10")		3 (9'2")			
General Duty Bucket							
Bucket Digging Force (SAE)	85 kN	19,200 lbf	85 kN	19,200 lbf			
Stick Digging Force (SAE)	57 kN	12,800 lbf	60 kN	13,500 lbf			
Severe Duty Bucket							
Bucket Digging Force (SAE)	84 kN	18,800 lbf	83 kN	18,700 lbf			
Stick Digging Force (SAE)	57 kN	12,800 lbf	60 kN	13,400 lbf			

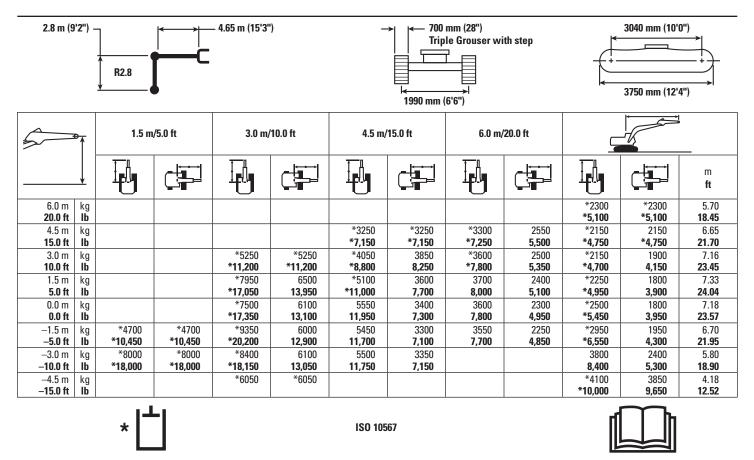
Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

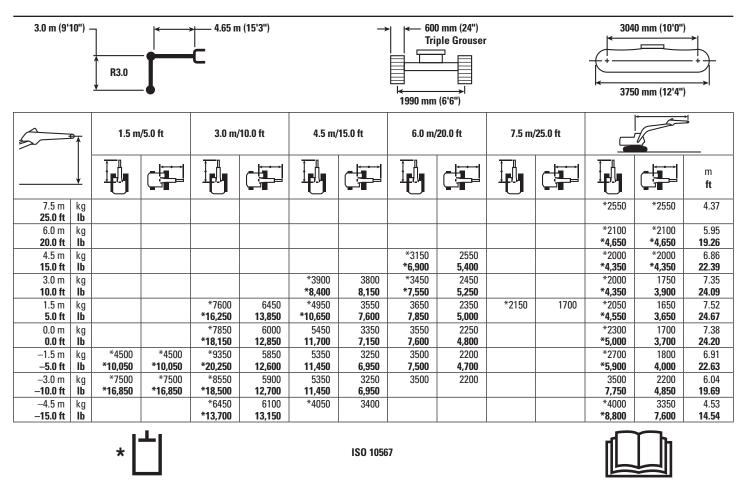
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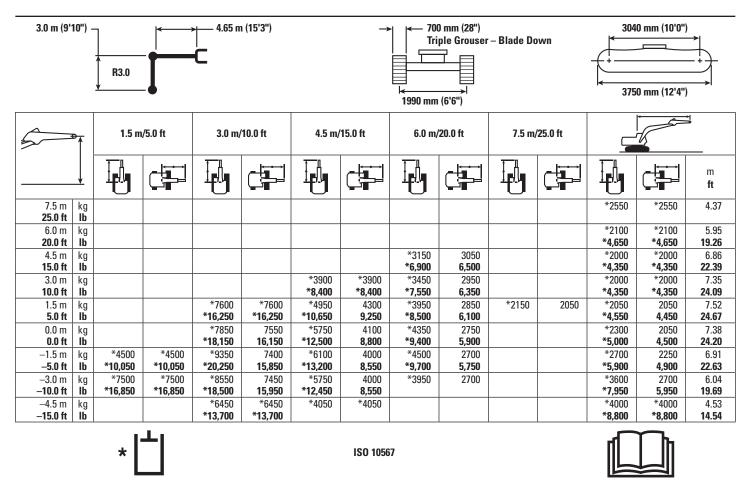
Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket

2.8 m (9'2") 4.65 m (15'3")						_		mm (24") le Grouser			3040 mm (10'0 3750 mm (12'0	
5	₽_	1.5 m	/5.0 ft	3.0 m/	/10.0 ft	4.5 m/	/15.0 ft	6.0 m/	/20.0 ft			
	<u> </u>											m ft
6.0 m 20.0 ft	kg lb									*2300 *5,100	*2300 *5,100	5.70 18.45
4.5 m	kg					*3250	*3250	*3300	2500	*2150	2100	6.65
15.0 ft	lb					* 7,150	* 7,150	* 7,250	5,400	* 4,750	4,700	21.70
3.0 m	kg			*5250	*5250	*4050	3750	*3600	2450	*2150	1850	7.16
10.0 ft	lb			*11,200	*11,200	*8,800	8,100	*7,800	5,250	*4,700	4,050	23.45
1.5 m	kg			*7950	6400	*5100	3550	3650	2350	*2250	1750	7.33
5.0 ft	lb			*17,050	13,700	*11,000	7,600	7,850	5,050	*4,950	3,800	24.04
0.0 m	kg			*7500	6000	5450	3350	3550	2250	*2500	1750	7.18
0.0 ft	lb			*17,350	12,850	11,700	7,200	7,650	4,850	*5,450	3,850	23.57
-1.5 m	kg	*4700	*4700	*9350	5900	5350	3250	3500	2200	*2950	1900	6.70
-5.0 ft	lb	*10,450	*10,450	*20,200	12,650	11,500	7,000	7,550	4,750	*6,550	4,200	21.95
-3.0 m	kg	*8000 *10.000	*8000 *10.000	*8400 *10.1E0	5950	5400	3250			3700	2350	5.80
-10.0 ft	lb	*18,000	*18,000	*18,150	12,800	11,550	7,050			8,250 *4100	5,200	18.90
−4.5 m −15.0 ft	kg lb			*6050	*6050					*4100 *10,000	3800 9,500	4.18 12.52
13.010	III		<u> </u>	<u> </u>			<u> </u>	<u> </u>		10,000	3,300	12.32
		* 4	1			ISO 105	667			ſ		

^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with $\pm 5\%$ for all available track shoes.

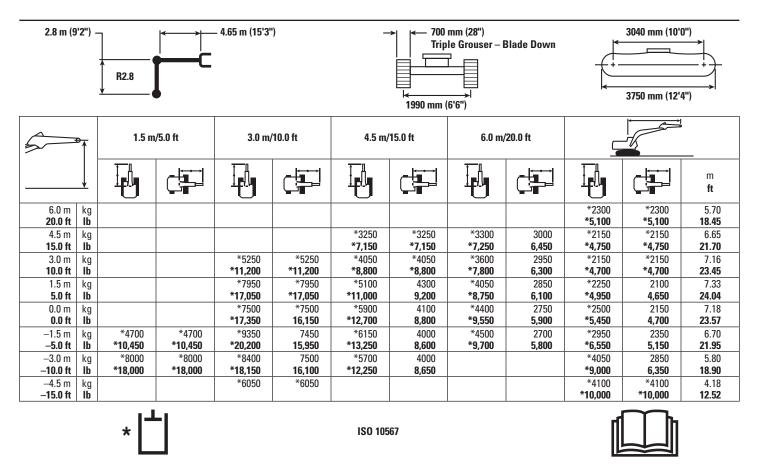
Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

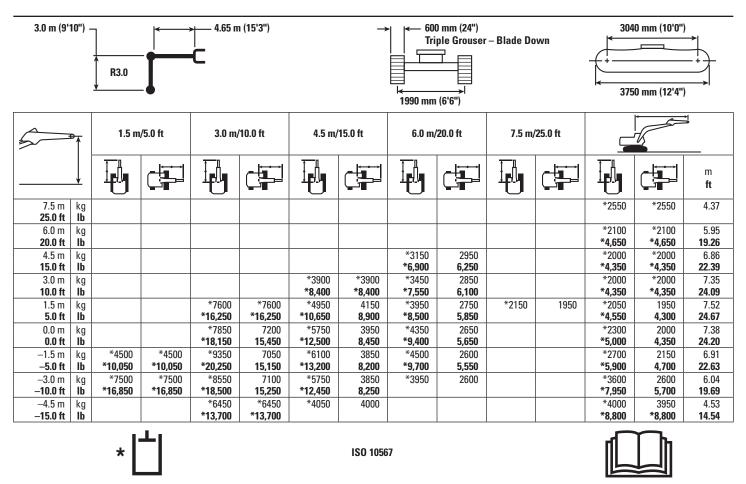
Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Reach Boom Lift Capacities – Counterweight: 2.2 mt (2.4 t) – without Bucket

2.8 m (9'2") 4.65 m (15'3")						_		mm (24") le Grouser – E	Blade Down		3040 mm (10'0 3750 mm (12'4		
5	1.5 m/5.0 ft 3.0 m/10.0 ft				₹		4.5 m/	/15.0 ft	6.0 m/	20.0 ft			
	<u> </u>											m ft	
6.0 m	kg									*2300	*2300	5.70	
20.0 ft 4.5 m	lb kg					*3250	*3250	*3300	2900	* 5,100 *2150	* 5,100 *2150	18.45 6.65	
15.0 ft	lb					* 7,150	* 7,150	* 7,250	6, 250	* 4,750	*4,750	21.70	
3.0 m	kg			*5250	*5250	*4050	*4050	*3600	2850	*2150	*2150	7.16	
10.0 ft	ΙĎ			*11,200	*11,200	*8,800	*8,800	*7,800	6,100	*4,700	*4,700	23.45	
1.5 m	kg			*7950	7600	*5100	4150	*4050	2750	*2250	2050	7.33	
5.0 ft	lb			*17,050	16,350	*11,000	8,900	*8,750	5,850	*4,950	4,450	24.04	
0.0 m 0.0 ft	kg Ib			*7500 *17,350	7200 15,450	*5900 *12,700	3950 8,450	*4400 *9,550	2650 5,650	*2500 *5,450	2050 4,500	7.18 23.57	
–1.5 m	kg	*4700	*4700	*9350	7100	*6150	3850	*4500	2600	*2950	2250	6.70	
-1.5 iii -5.0 ft	lb	*10.450	*10,450	* 20,200	15.250	*13,250	8,250	*9.700	5.600	* 6.550	4.950	21.95	
-3.0 m	kg	*8000	*8000	*8400	7200	*5700	3850	-,	-,	*4050	2750	5.80	
-10.0 ft	lb	*18,000	*18,000	*18,150	15,400	*12,250	8,300			*9,000	6,100	18.90	
−4.5 m	kg			*6050	*6050					*4100	*4100	4.18	
–15.0 ft	lb									*10,000	*10,000	12.52	
		* 💾]			ISO 105	667						

^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with $\pm 5\%$ for all available track shoes.

Work Tool Offering Guide*

Boom Type	Reach	Boom
Stick Size	R3.0 (9'10")	R2.8 (9'2")
Hydraulic Hammer	H110Es H115Es	H110Es H115Es
Mobile Scrap and Demolition Shear	S320B**	S320B**
Compactor (Vibratory Plate)	CVP75	CVP76
Contractors' Grapple	G112B	G112B
Trash Grapple		
Thumb	These work tools are as	vailable for the 313F L.
Pin Grabber Coupler	Consult your Cat dea	ler for proper match.
Dedicated Quick Coupler		

^{*}Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

^{**}Boom mount.

Bucket Specifications and Compatibility

	Wi	Width		acity	Weight		Fill	Reach Boom		
	mm	in	m³	yd³	kg	lb	%	R3.0 (9'10")	R2.8 (9'2")	R3.0 (9'10") Thumb*
Without Quick Coupler										•
General Duty (GD)	450	18	0.20	0.27	276	608	100%	•	•	•
	600	24	0.31	0.40	326	719	100%	•	•	•
	750	30	0.41	0.54	374	823	100%	•	•	•
	900	36	0.53	0.69	423	932	100%	•	•	•
	1050	42	0.65	0.84	469	1,034	100%	•	•	•
	1200	48	0.76	1.00	510	1,125	100%	Х	Х	Х
Severe Duty (SD)	600	24	0.31	0.40	367	810	90%	•	•	•
	750	30	0.41	0.54	425	936	90%	•	•	•
	900	36	0.53	0.69	483	1,065	90%	•	•	•
	1050	42	0.65	0.84	529	1,166	90%	•	•	•
			Maxi	mum load pi	n-on (payloa	ıd + bucket)	kg	1745	1835	1695
							lb	3,846	4,044	3,736
With Quick Coupler										
General Duty (GD)	450	18	0.20	0.27	276	608	100%	•	•	•
	600	24	0.31	0.40	326	719	100%	•	•	•
	750	30	0.41	0.54	374	823	100%	•	•	•
	900	36	0.53	0.69	423	932	100%	•	•	•
	1050	42	0.65	0.84	469	1,034	100%	•	•	•
	1200	48	0.76	1.00	510	1,125	100%	Θ	•	Θ
Severe Duty (SD)	600	24	0.31	0.40	367	810	90%	•	•	•
	750	30	0.41	0.54	425	936	90%	•	•	•
	900	36	0.53	0.69	483	1,065	90%	•	•	•
	1050	42	0.65	0.84	529	1,166	90%	•	•	•
		,	Maximum I	oad with cou	ıpler (payloa	ıd + bucket)	kg	1499	1589	1449
							lb	3,304	3,503	3,194

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with Long tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- → 1500 kg/m³ (2,500 lb/yd³)
- X Not recommended

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

^{*} Densities with 3.0 m (9'10") thumb stick do not consider thumb weight.

Standard Equipment

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

ENGINE

- C4.4 ACERT diesel engine
- Biodiesel capable up to B20
- Meets Tier 4 Final emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- · Automatic engine speed control
- Economy and high power modes
- · Two-speed travel
- Side-by-side cooling system
- · Radial seal air filter
- Primary filter with water separator and water separator indicator
- · Secondary filter
- · Screen filter in fuel line
- Cold weather battery –25° C (–13° F)
- Jump start receptacle

HYDRAULIC SYSTEM

- · Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump and circuit
- Capability of installing boom lowering control device and stick lowering check valve
- Fine swing control

CAB

- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- · Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- · Beverage holder
- · Literature holder
- AM/FM radio
- · Radio with MP3 auxiliary audio port
- Two 12V stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with indicators, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Travel alarm
- Laminated glass front upper window and tempered other windows

UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

COUNTERWEIGHT

• 2.2 mt (2.4 t)

ELECTRICAL

- 80 amp alternator
- · Circuit breaker
- Capability to electrically connect a beacon

LICHTS

- Halogen boom light (left side)
- Time delay function for boom light and cab light
- Exterior lights integrated into storage box

SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- · Secondary engine shutoff switch
- Openable skylight for emergency exit
- · Rearview camera

TECHNOLOGY

• Product Link

313F L Optional Equipment

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

ENGINE

· Quick drains, engine and hydraulic oil

HYDRAULIC SYSTEM

- · Control pattern quick-changer, two way
- Auxiliary hydraulics
- · Boom and stick lines
- High-pressure line
- Medium-pressure line
- Cat quick coupler line high-pressure capable
- Boom lowering and stick lowering control device
- Cat Bio hydraulic oil

CAB

- · Cab hatch emergency exit
- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- · Windshield wiper, lower with washer
- Air pre-filter
- · Left foot switch
- Left pedal
- Straight travel pedal
- Rain protector
- Cab mirror
- Ashtray

UNDERCARRIAGE

- 600 mm (24") triple grouser shoes
- 700 mm (28") triple grouser shoes
- Rubber pad for 500 mm (20") triple grouser shoes
- Guard, heavy-duty bottom
- Center track guiding guard
- 2600 mm (8'6") blade with replaceable cutting edge
- 2700 mm (8'10") blade with replaceable cutting edge
- · Swivel guard

FRONT LINKAGE

- · Quick coupler
- Bucket linkage, without lifting eye
- 4.65 m (15'3") reach boom
- 2.8 m (9'2") stick
- 3.0 m (9'10") stick
- 3.0 m (9'10") thumb-ready stick

LIGHTS

- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay
- Halogen boom lights (right side)

SECURITY

- · FOGS, bolt-on
- Side steel bumper
- · Guard rail
- · Guard, cab front, mesh
- · Guard, vandalism
- · Rearview camera

TECHNOLOGY

• Cat Grade Control Depth and Slope

Notes

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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