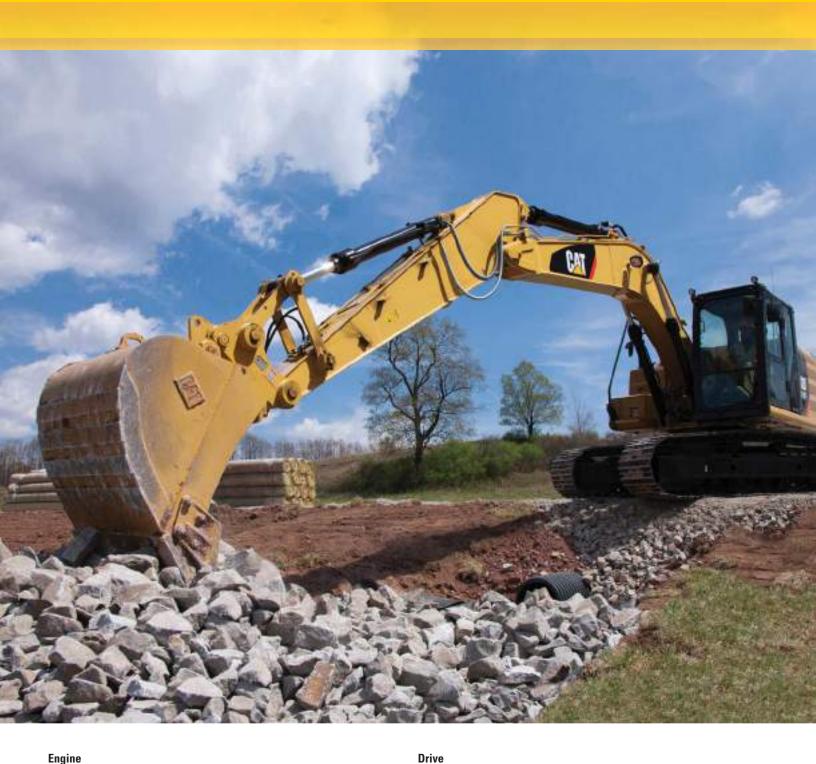
# 318F L

Hydraulic Excavator 2017





•
Engine Model
Net Power - SAF J1349/ISO 9

Engine Power – ISO 14396

Cat® C4.4 ACERT™ 88 kW (120 PS) 91 kW (124 PS)

U	r	I	V

Maximum Travel Speed	4.0 km/h
Maximum Drawbar Pull	207.5 kN
Weights	
Minimum Operating Weight	18 500 kg
Maximum Operating Weight	20 000 kg

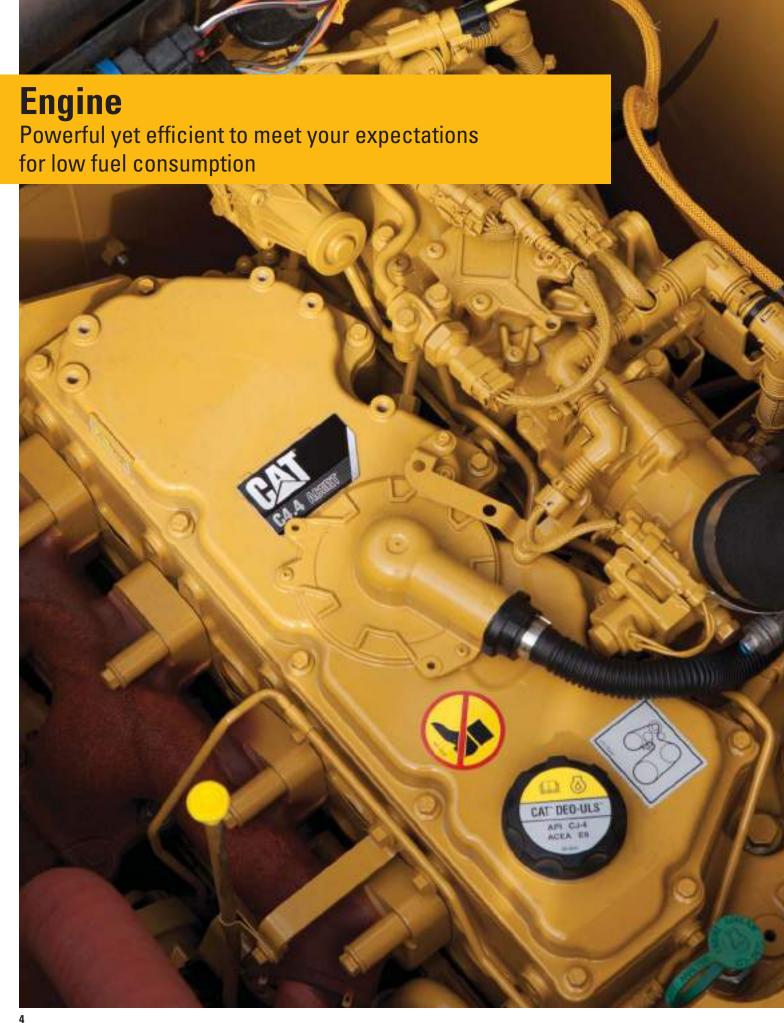
If you are looking for a productive, fuel-efficient, easy-to-operate-and-transport 18 metric ton machine, you will find it in the new 318F L. Designed to meet today's U.S. EPA Tier 4 Final and EU Stage IV emission standards, the machine makes an excellent choice for people who need a well-balanced utility machine that delivers power and fuel economy in an easy-to-transport package. In fact, the 318F L comes equipped with several new features and benefits that will delight both you and your operators.

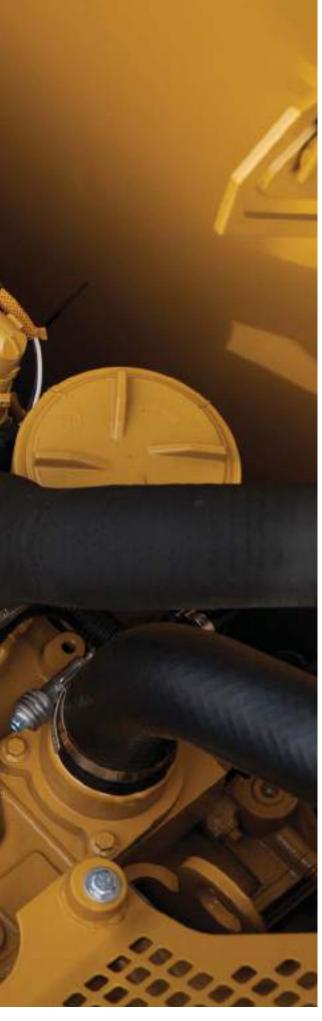
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### **Proven Technology**

The Cat C4.4 ACERT engine, like every Cat Tier 4 Final and Stage IV 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; they work together "behind the scenes" so they won't interrupt the job or the operator.

Following are just some of the results you can expect out of a Cat Tier 4 Final and Stage IV engine:

- Improved fluid efficiency of up to 5% over Tier 4 Interim and Stage IIIB 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 world-class 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.

The Cat C4.4 ACERT engine is built to meet your demanding needs all day every day. There is no interruption to your job process as our regeneration system works automatically with no operator intervention required.

#### **Power Modes**

The 318F L features two power modes: High power mode is when you need maximum production; economy mode is when you need to balance performance with fuel economy. Two additional fuel-saving features are on demand engine power and engine idle shutdown. On demand engine power keeps engine speed low during light loading and automatically adjusts speed up when it senses a heavier load; engine idle shutdown automatically shuts the engine off when it's been idling for more than a specified amount of time that you set, which can save you significant amounts of fuel, reduce your emissions, and even reduce your accumulated service hours, which will extend service intervals and improve resale value.

#### **Biodiesel-Ready Fuel System**

You have added flexibility with the C4.4 ACERT engine because it's equipped to run on up to B20 biodiesel fuel that meets ASTM 6751 standards. Just fill it up and go.

**Hydraulics**Power to move your material with speed and precision





## A Powerful, Efficient Design

When it comes to moving material quickly and efficiently, you need hydraulic horsepower — the type of ground-breaking power the 318F 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**

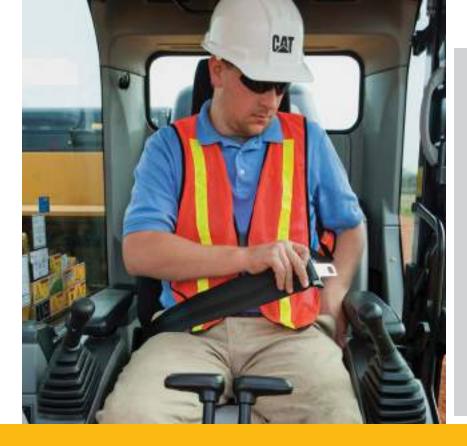
Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the main control valve. The valve opens slowly when your range of joystick lever movement is small and opens rapidly when movement is high. It puts flow where you need it when you need it, which 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 318F 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.



#### **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.

# **Operator Station**

Comfort and convenience to keep you productive

#### A Safe, Quiet Cab

The 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.

## **Comfortable Seat Options**

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.

### A Helpful Monitor

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.

# **Structures & Undercarriage**

Designed to work in your rugged applications

#### **Robust Frame**

The 318F 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. Larger bolts are used to attach the track frames to the body.

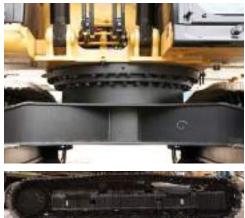
### **Durable Undercarriage**

The 318F 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.

## **Great Weight**

The 3.4 mt 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 an integrated housing to help protect the available rearview camera.







## **Work Tools**

You can dig, hammer, rip, and cut with confidence



## **Get The Most Out Of One Machine**

You can easily expand the performance of your machine by utilizing any of the variety of attachments offered by Cat Work Tools.

## **Change Jobs Quickly**

A quick coupler brings the ability to quickly change attachments and switch from job to job. The Cat Pin Grabber coupler is the secure way to decrease downtime and increase job site flexibility and overall productivity.

## Dig, Finish, Load & Compact

A wide range of buckets digs everything from top soil to harsh, abrasive material. For finishing and grading work, compact and shallow ditch cleaning buckets fit the need. A Cat compactor prepares the area for the next phase of construction.

# 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.









# **Front Linkage**

Options to take on your far-reaching and up-close tasks

Your uptime and service intervals are increased with high quality, durable, and reliable booms, sticks, and linkage pins. Each boom and stick is built with internal baffle plates for additional durability, and each undergoes ultrasound inspection to ensure the expected Cat durability and reliability for any tough application you might take on.

A reach boom and a choice of various stick configurations provide all the utility you need. The R3.1 m stick is best for when you need deep trenching, longer reach, and excellent truck loading capabilities. The R2.25 m stick provides greater breakout force and increases productivity when you primarily plan on using hydro-mechanical work tools.

Variable Angle Boom is also available for Europe market.

Consult with your Cat dealer to select the right linkage for your line of work.



# **Integrated Technologies**

Monitor, manage, and enhance job site operations



Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:



**Equipment Management** – increase uptime and reduce operating costs.



**Productivity** – monitor production and manage job site efficiency.



**Safety** – enhance job site awareness to keep your people and equipment safe.

### **LINK Technologies**

LINK technologies, like Product Link™, are deeply integrated into your machine and wirelessly communicates key information, including location, hours, fuel usage, idle time and event codes.

#### **Product Link/VisionLink®**

Easy access to Product Link data via the online VisionLink user interface can help you see how your machine or fleet is performing. You can use this information to make timely, fact based decisions that can boost job site efficiency and productivity, and lower costs.

## **GRADE Technologies**

Grade technologies combine digital design data and in-cab guidance to help you reach target grade quickly and accurately, with minimal staking and checking. That means you'll be more productive, complete jobs faster, in fewer passes, using less fuel, at a lower cost.





## Cat Grade Control Depth and Slope

The factory integrated Cat Grade Control system delivers 2D bucket tip elevation guidance to the cab to help operators create precise planes and slopes with ease. Real-time bucket tip elevation guidance on the easy-to-read standard cab monitor indicates how much to cut or fill. Fast response sensors deliver immediate feedback, while optional integrated joystick buttons help operators make quick adjustments to maintain consistent, quality grades. Built-in alerts can be set to warn the operator if the linkage or bucket approaches a predefined elevation or depth, such as when working in areas with low ceilings, or digging near water lines. Staking and checking is minimized, which reduces ground crews and enhances job site safety.

Works best in simple 2D applications, such as digging basements or grading steep embankments. Easily upgrade to AccuGrade™ when 3D guidance is required.

#### Cat AccuGrade

The dealer-installed AccuGrade system provides 3D guidance for making complex cuts and contours, eliminating the need for staking and checking. A dedicated monitor displays a digital design plan with 3D bucket tip positioning and elevation guidance, indicating precisely where to work and how much to cut or fill.

Plug and play capability on the 318F L simplifies upgrading. Choose from satellite (GNSS) control for large projects with complex designs or total station (UTS) systems in areas with limited reception.

# **Serviceability**

Designed to make your maintenance quick and easy



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**

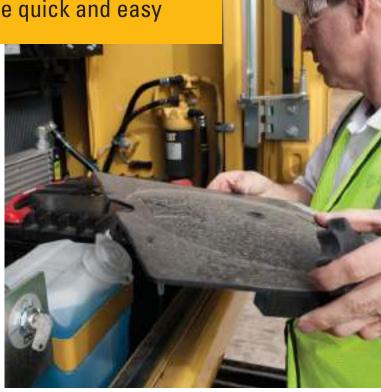
The cooling system features a side-by-side-mounted radiator and oil and air coolers for easy cleaning. Wider clearance between the two makes blowing off debris easy, which can help improve your machine's reliability and performance.

#### 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.













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 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 Are**

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 dayto-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.

# What's Best For You Today... And Tomorrow

Repair, rebuild, or replace? Your Cat dealer can help you evaluate the cost involved so you can make the best choice for your business.

# **Sustainability**

Your machine is designed to benefit generations ahead

- The 318F L is an efficient, productive machine that's designed to conserve our natural and your financial resources for generations ahead.
- The C4.4 ACERT engine meets Tier 4 Final and Stage IV emission standards.
- The engine can run on either ultra-lowsulfur diesel fuel (ULSD that is 15 ppm EPA, 10 ppm EU of sulfur or less) or up to B20 biodiesel (blended with ULSD) that meets ASTM 6751 standards.
- An overfill indicator rises when the fuel tank is full to help your service technicians avoid spilling.
- A unique engine oil filter eliminates the need for painted metal cans and aluminum top plates. The cartridgestyle spin-on housing enables the internal filter to be separated and replaced; the used internal element can be incinerated to help reduce waste.



Engine	
Engine Model	Cat C4.4 ACERT
Net Power – SAE J1349/ISO 9249	88 kW (120 PS)
Engine Power – ISO 14396	91 kW (124 PS)
Bore	105 mm
Stroke	127 mm
Displacement	4.4 L

Weights	
Minimum Operating Weight*	18 500 kg
Maximum Operating Weight**	20 000 kg

<sup>\*5.1</sup> m reach boom, 2.25 m stick, 3.4 mt counterweight, GD 0.76 m³ bucket and 500 mm shoes.

<sup>\*\*</sup>Variable Angle boom, 2.6 m stick, 3.4 mt counterweight, GD 0.53 m³ bucket and 790 mm shoes.

300 L/min
35 000 kPa
35 000 kPa
25 000 kPa
25 L/min
4120 kPa
110 mm
1193 mm
130 mm
1331 mm
110 mm
1039 mm

Drive	
Maximum Travel Speed	4.0 km/h
Maximum Drawbar Pull	207.5 kN

Swing Mechanism	
Swing Speed	8.5 rpm
Swing Torque	50.7 kN·m
Service Refill Capacities	
Fuel Tank Capacity	290 L
DEF Tank Capacity	20.5 L
Cooling System	26 L
Engine Oil (with filter)	13.5 L
Swing Drive (each)	8 L
Final Drive (each)	8 L
Hydraulic System (including tank)	190 L
Hydraulic Tank	121 L
Track	

Number of Shoes (each side)	45 pieces	
Number of Track Rollers (each side)	7 pieces	
Number of Carrier Rollers (each side)	2 pieces	
Sound		
Operator Sound Pressure Level	71 dR(A)	

Count		
Operator Sound Pressure Level (ISO 6396:2008)	71 dB(A)	
Exterior Sound Power level (ISO 6395:2008)*	102 dB(A)	

- \* European Union Directive "2000/14/EC" as amended by "2005/88/EC."
- 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 a noisy environment.

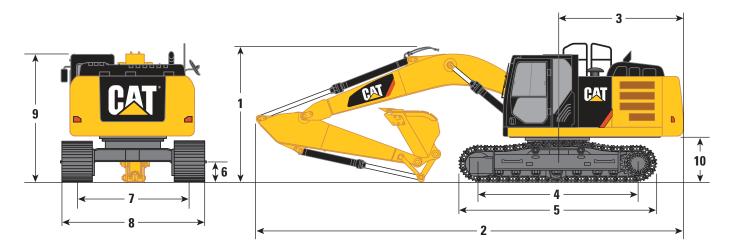
## **Air Conditioning System**

Curing Machaniam

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg of refrigerant which has a  $\rm CO_2$  equivalent 1.430 metric tonnes.

## **Dimensions**

All dimensions are approximate.

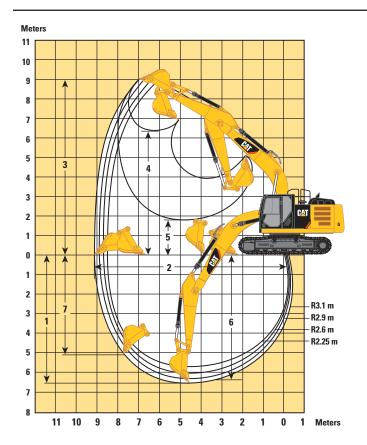


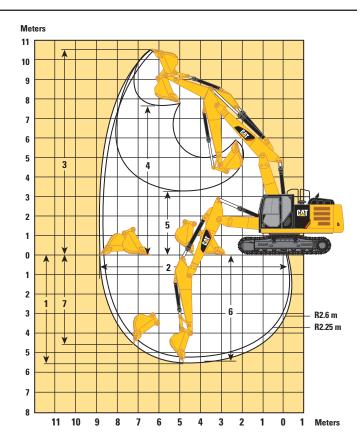
Boom Options		Reach Boom – 5.1 m			Variable Angle Boom*	
Stick Options	R3.1 m	R2.9 m	R2.6 m	R2.25 m	R2.6 m	R2.25 m
Bucket Type	GD	GD	GD	GD	GD	GD
Bucket Capacity	0.91 m <sup>3</sup>	0.91 m³	0.91 m <sup>3</sup>	0.91 m³	0.91 m <sup>3</sup>	0.91 m <sup>3</sup>
Tip Radius	1380 mm	1380 mm	1380 mm	1380 mm	1380 mm	1380 mm
1 Shipping Height	3190 mm	3100 mm	3050 mm	3020 mm	2980 mm	2940 mm
2 Shipping Length	8610 mm	8580 mm	8570 mm	8580 mm	8630 mm	8640 mm
3 Tail Swing Radius	2520 mm	2520 mm	2520 mm	2520 mm	2520 mm	2520 mm
4 Length to Center of Rollers	3270 mm	3270 mm	3270 mm	3270 mm	3270 mm	3270 mm
5 Track Length	4070 mm	4070 mm	4070 mm	4070 mm	4070 mm	4070 mm
6 Ground Clearance	440 mm	440 mm	440 mm	440 mm	440 mm	440 mm
7 Track Gauge (Shipping)	1990 mm	1990 mm	1990 mm	1990 mm	1990 mm	1990 mm
8 Transport Width						
500 mm Shoes	2520 mm	2520 mm	2520 mm	2520 mm	2520 mm	2520 mm
600 mm Shoes	2590 mm	2590 mm	2590 mm	2590 mm	2590 mm	2590 mm
700 mm Shoes	2690 mm	2690 mm	2690 mm	2690 mm	2690 mm	2690 mm
9 Cab Height	2890 mm	2890 mm	2890 mm	2890 mm	2890 mm	2890 mm
Cab Height with Top Guard	3100 mm	3100 mm	3100 mm	3100 mm	3100 mm	3100 mm
10 Counterweight Clearance	1010 mm	1010 mm	1010 mm	1010 mm	1010 mm	1010 mm

 $<sup>{}^*\</sup>mbox{Variable Angle Boom is only offered in Europe.}$ 

## **Working Ranges**

All dimensions are approximate.





Boom Options		Reach Bo	Variable Aı	ngle Boom*		
Stick Options	R3.1 m	R2.9 m	R2.6 m	R2.25 m	R2.6 m	R2.25 m
Bucket Capacity	0.91 m <sup>3</sup>					
Tip Radius	1380 mm					
1 Maximum Digging Depth	6580 mm	6390 mm	6090 mm	5740 mm	5510 mm	5170 mm
2 Maximum Reach at Ground Line	9160 mm	8990 mm	8780 mm	8460 mm	8970 mm	8630 mm
3 Maximum Cutting Height	9000 mm	8910 mm	8920 mm	8750 mm	10 560 mm	10 250 mm
4 Maximum Loading Height	6330 mm	6310 mm	6280 mm	6120 mm	7870 mm	7550 mm
5 Minimum Loading Height	1830 mm	2030 mm	2300 mm	2660 mm	3290 mm	3590 mm
6 Maximum Depth Cut for 2440 mm Level Bottom	6400 mm	6150 mm	5870 mm	5490 mm	5390 mm	5030 mm
7 Maximum Vertical Wall Digging Depth	5130 mm	4940 mm	4950 mm	4510 mm	4480 mm	4100 mm

 $<sup>\</sup>hbox{$^*$Variable Angle Boom is only offered in Europe.}\\$ 

## **Operating Weights and Ground Pressures**

	790 mm	Shoes	700 mm	Shoes	600 mm	Shoes	500 mm	Shoes
	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure
Reach Boom – 5.1 m								_
R3.1 m Stick	19 600 kg	34.3 kPa	19 300 kg	38.1 kPa	18 900 kg	43.5 kPa	18 700 kg	43.1 kPa
R2.9 m Stick	19 500 kg	34.1 kPa	19 300 kg	38.1 kPa	18 800 kg	43.3 kPa	18 700 kg	51.7 kPa
R2.6 m Stick	19 500 kg	34.1 kPa	19 200 kg	37.9 kPa	18 800 kg	43.3 kPa	18 600 kg	51.4 kPa
R2.25 m Stick	19 400 kg	33.9 kPa	19 100 kg	37.7 kPa	18 700 kg	43.1 kPa	18 500 kg	51.1 kPa
Variable Angle Boom*								
R2.6 m Stick	20 000 kg	35.0 kPa	19 700 kg	38.9 kPa	19 300 kg	44.5 kPa	19 100 kg	44.0 kPa
R2.25 m Stick	19 900 kg	34.8 kPa	19 700 kg	38.9 kPa	19 300 kg	38.1 kPa	19 100 kg	44.0 kPa

<sup>\*</sup>Variable Angle Boom is only offered in Europe.

## **Major Component Weights**

	kg
Base Machine (with boom cylinder, without counterweight, front linkage and track)	5970
Long Undercarriage	3970
Counterweight	3430
Boom (includes lines, pins and stick cylinder)	
Reach Boom – 5.1 m	1500
VA Boom*	2000
Stick (includes lines, pins, bucket cylinder, and bucket linkage)	
R3.1 m	900
R2.9 m	860
R2.6 m	800
R2.25 m	770
Track Shoe (Long/per two tracks)	
500 mm Triple Grouser	2240
600 mm Triple Grouser	2470
700 mm Triple Grouser	2870
790 mm Triple Grouser	3100
CW Dedicated Quick Coupler	220
GD 0.91 m³ Bucket with Sidecutter and Tip	820

All weights are rounded up to nearest 10 kg except for buckets.

Base machine includes 75 kg operator weight, 90% fuel weight, and undercarriage with center guard.

<sup>\*</sup>Variable Angle Boom is only offered in Europe.

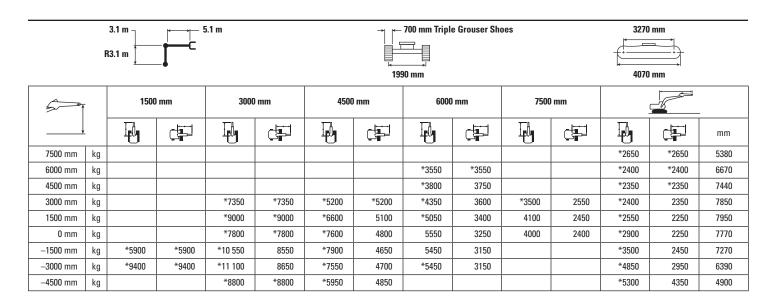
## **Bucket and Stick Forces**

Boom Options		Reach Boom – 5.1 m					
Stick Options	R3.1 m	R2.9 m	R2.6 m	R2.25 m	R2.6 m	R2.25 m	
Bucket	0.91 m <sup>3</sup>	0.91 m³	0.91 m³	0.91 m³	0.91 m <sup>3</sup>	0.91 m <sup>3</sup>	
Bucket Digging Force (SAE)	109 kN	109 kN	109 kN	109 kN	98 kN	98 kN	
Bucket Digging Force (ISO)	123 kN	123 kN	123 kN	123 kN	111 kN	111 kN	
Stick Digging Force (SAE)	74 kN	78 kN	83 kN	91 kN	77 kN	85 kN	
Stick Digging Force (ISO)	77 kN	80 kN	86 kN	94 kN	80 kN	88 kN	

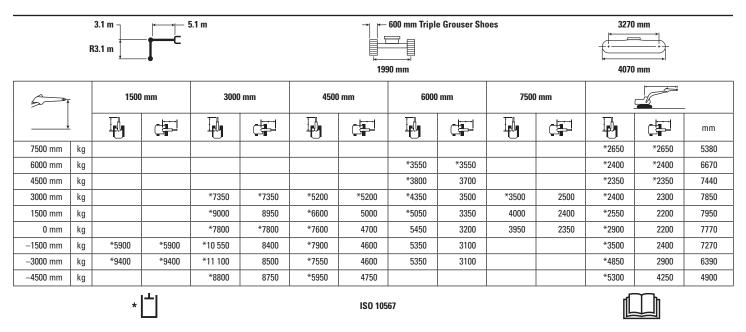
<sup>\*</sup>Variable Angle Boom is only offered in Europe.

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.

## Reach Boom Lift Capacities - Counterweight: 3.4 mt - with Bucket Linkages, without Bucket



## Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket

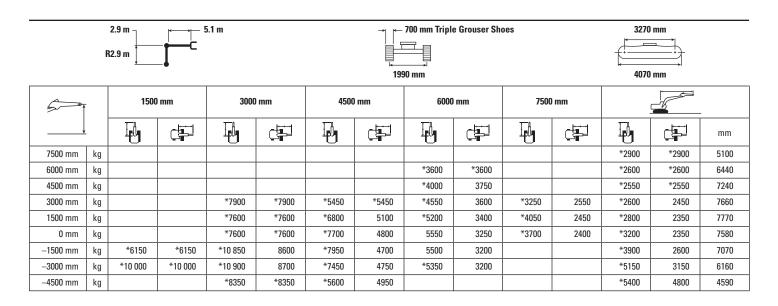


<sup>\*</sup>Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007.

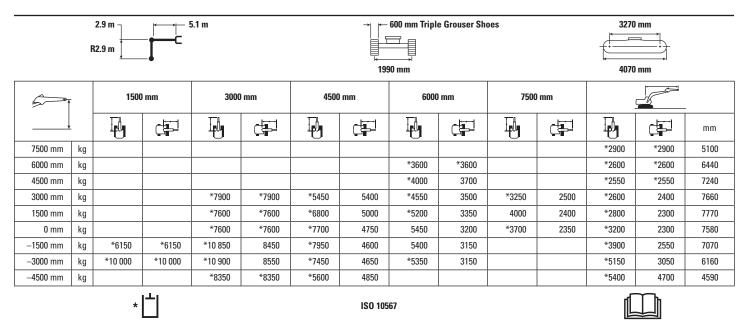
They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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

## Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket



### Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket

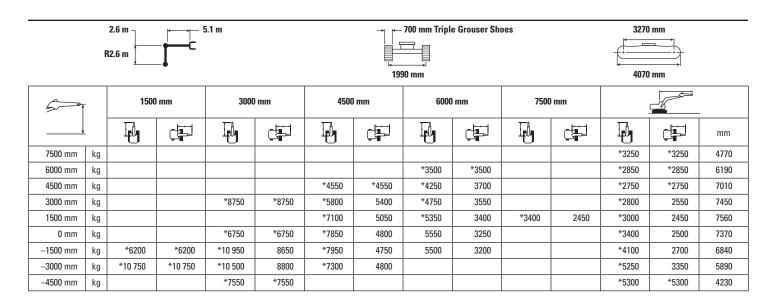


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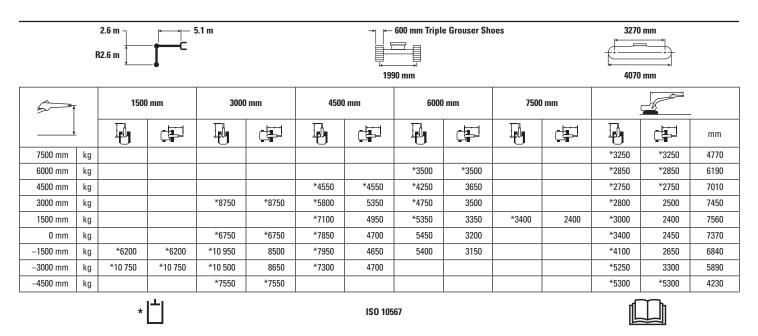
They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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

## Reach Boom Lift Capacities - Counterweight: 3.4 mt - with Bucket Linkages, without Bucket



## Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket



<sup>\*</sup>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.

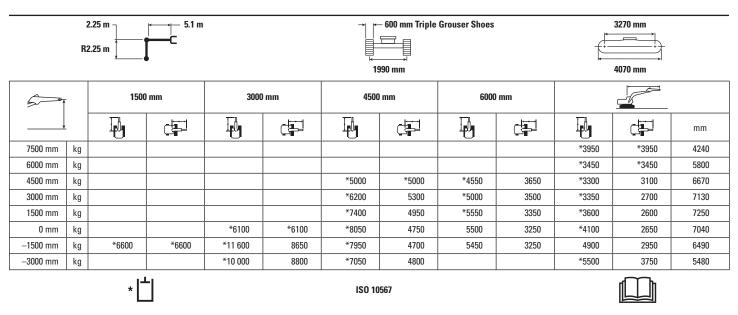
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Lift capacity stays with  $\pm 5\%$  for all available track shoes.

## Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket

	2.25 m					19	- 700 mm Triple	Grouser Shoes	3270 mm 4070 mm			
5	•	1500	) mm	3000	) mm	4500	mm	6000	mm			
	<u>.</u>			Į.		Į,		Į,				mm
7500 mm	kg									*3950	*3950	4240
6000 mm	kg									*3450	*3450	5800
4500 mm	kg					*5000	*5000	*4550	3700	*3300	3150	6670
3000 mm	kg					*6200	5400	*5000	3600	*3350	2750	7130
1500 mm	kg					*7400	5050	*5550	3450	*3600	2650	7250
0 mm	kg			*6100	*6100	*8050	4850	5600	3300	*4100	2700	7040
-1500 mm	kg	*6600	*6600	*11 600	8800	*7950	4800	5550	3300	5000	3000	6490
-3000 mm	kg			*10 000	8950	*7050	4900			*5500	3800	5480

## Reach Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket

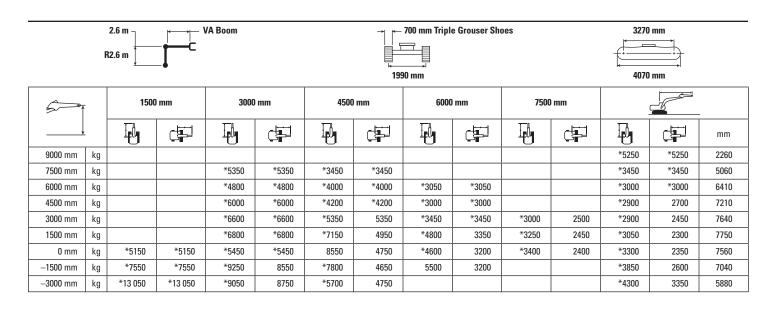


<sup>\*</sup>Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007.

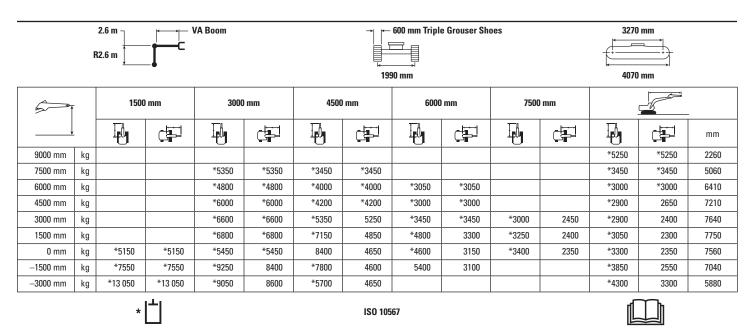
They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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

## Variable Angle Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket\*\*



### Variable Angle Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket\*\*



<sup>\*</sup>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.

VA cylinder is flexible.

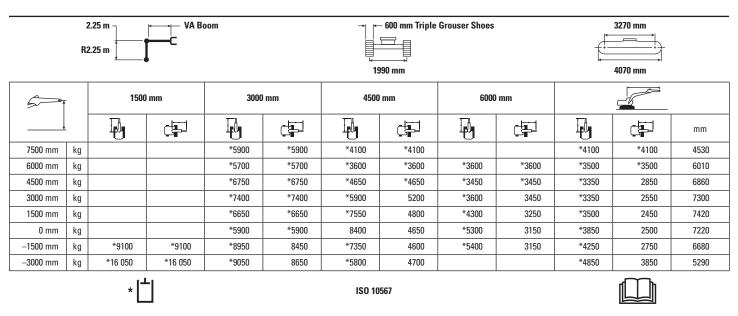
Lift capacity stays with ±5% for all available track shoes.

<sup>\*\*</sup>Variable Angle Boom is only offered in Europe.

## Variable Angle Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket\*\*

2.25 m VA Boom R2.25 m						19	- 700 mm Triple	Grouser Shoes	3270 mm 4070 mm			
5	<del>.</del>	1500	) mm	3000	mm	4500	mm	6000	mm			
	<u>.</u>	Į.		Į.		Į.						mm
7500 mm	kg			*5900	*5900	*4100	*4100			*4100	*4100	4530
6000 mm	kg			*5700	*5700	*3600	*3600	*3600	*3600	*3500	*3500	6010
4500 mm	kg			*6750	*6750	*4650	*4650	*3450	*3450	*3350	2900	6860
3000 mm	kg			*7400	*7400	*5900	5250	*3600	3500	*3350	2600	7300
1500 mm	kg			*6650	*6650	*7550	4900	*4300	3350	*3500	2450	7420
0 mm	kg			*5900	*5900	8550	4700	*5300	3200	*3850	2550	7220
-1500 mm	kg	*9100	*9100	*8950	8600	*7350	4700	*5400	3200	*4250	2800	6680
-3000 mm	kg	*16 050	*16 050	*9050	8800	*5800	4800			*4850	3900	5290

## Variable Angle Boom Lift Capacities – Counterweight: 3.4 mt – with Bucket Linkages, without Bucket\*\*



<sup>\*</sup>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.

VA cylinder is flexible.

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

<sup>\*\*</sup>Variable Angle Boom is only offered in Europe.

## **Work Tool Offering Guidet – Europe**

		Reach	Boom		Variable Angle Boom		
	R3.1 m	R2.9 m	R2.6 m	R2.25 m	R2.6 m	R2.25 m	
	H115Es H120Es H130Es	H115Es H120Es H130Es	H115Es H120Es H130Es	H115Es H120Es H130Es	H115Es H120Es	H115Es H120Es	
Multi Processor		MP318 CC-Jaw MP318 D-Jaw MP318 S-Jaw	MP318 CC-Jaw MP318 D-Jaw MP318 P-Jaw MP318 S-Jaw MP318	MP318 CC-Jaw MP318 D-Jaw MP318 P-Jaw MP318 S-Jaw MP318			
Crusher		P315	P315	P315			
	P215	P215	P215	P215			
ng Shells,	G315 GC G315 GC CAN	G315 GC G315 GC CAN G315B-D/R	G315 GC G315 GC CAN G315B-D/R G315B CAN G315B WH	G315 GC G315 GC CAN G315B-D/R G315B CAN G315B WH	G315 GC G315 GC CAN G315B-D/R G315B WH	G315 GC G315 GC CAN G315B-D/R G315B WH	
ople				G213 GC			
	S325B	S325B	S320B S325B	S320B S325B	S325B	S325B	
	CVP75	CVP75	CVP75	CVP75	CVP75	CVP75	
CW-30 CW-30S CWAC-40							
	CW-30S	#115Es H120Es H130Es  MP318 S-Jaw  P215  Ople Ong Shells, uick Coupler Usage)  Ople  S325B  CVP75  CW-30  CW-30S  CWAC-40	R3.1 m   R2.9 m   H115Es   H115Es   H120Es   H120Es   H120Es   H130Es   MP318   CC-Jaw   MP318   D-Jaw   MP318   S-Jaw   S-Jaw   S-Jaw   S-Jaw   S-Jaw   S-Jaw   S-Jaw   S-Jaw   G315 GC   G315 GC   G315 GC   G315 GC   G315 GC   CAN   G315B-D/R   G315B WH   G315B WH   G315B   CVP75   CVP7	H115Es	R3.1 m	R3.1 m	

<sup>†</sup>Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

## Work Tool Offering Guidet – Australia/New Zealand

Boom Type		Reac	h Boom	
Stick Size	R3.1 m	R2.9 m	R2.6 m	R2.25 m
Hydraulic Hammer	H115Es H120Es	H115Es H120Es H130Es	H115Es H120Es H130Es	H115Es H120Es H130Es
Multi Processor		MP15 S Jaw	MP15 CC Jaw MP15 CR Jaw MP15 S Jaw	MP15 CC Jaw MP15 CR Jaw MP15 PP Jaw MP15 PS Jaw MP15 S Jaw
Crusher			P315	P315
Pulverizer		P215	P215	P215
Demolition and Sorting Grapple			G315B	G315B
Mobile Scrap and Demolition Shear	S325B	S325B	S325B	S320B S325B
Compactor (Vibratory Plate)	CVP75	CVP75	CVP75	CVP75
Contractors' Grapple	G115B	G115B	G115B	G115B
Trash Grapple				
Thumbs	<del></del>			
Orange Peel Grapples	<u> </u>	These work tools are a	wailable for the 318F L.	
Rakes	<del></del>	Consult your Cat de	aler for proper match.	
Center-Lock™ Pin Grabber Coupler	<u> </u>			
Dedicated Quick Coupler	<u> </u>			

<sup>†</sup>Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

## **Bucket Specifications and Compatibility – Europe**

	Width	Capacity	Weight	Fill		Reach	Boom		VA B	oom
	mm	m³	kg	%	R2.25 m	R2.6 m	R2.9 m	R3.1 m	R2.25 m	R2.6 m
Without Quick Coupler										
General Duty (GD)	600	0.35	450	100%	•	•	•	•	•	•
	750	0.49	508	100%	•	•	•	•	•	•
	900	0.62	559	100%	•	•	•	•	•	•
	1100	0.80	622	100%	•	•	•	•	•	$\Theta$
	1200	0.91	674	100%	•	•	•	θ	$\Theta$	0
	1300	1.00	707	100%	•	•	$\Theta$	θ	0	0
	1400	1.09	739	100%	Х	$\Theta$	Х	Х	Х	Х
Heavy Duty (HD)	1300	1.00	697	100%	•	•	$\Theta$	θ	0	0
	Maxi	imum load pin-on ( <sub> </sub>	payload + bucket)	kg	2600	2415	2305	2145	2120	1960
With Center-Lock Quick Coupler										
General Duty (GD)	600	0.35	450	100%	•	•	•	•	•	•
	750	0.49	508	100%	•	•	•	•	•	•
	900	0.62	559	100%	•	•	•	•	•	$\Theta$
	1100	0.80	622	100%	•	•	$\Theta$	0	0	0
	1200	0.91	674	100%	$\Theta$	$\Theta$	0	0	0	$\Diamond$
	1300	1.00	707	100%	$\Theta$	0	0	$\Diamond$	$\Diamond$	$\Diamond$
	1400	1.09	739	100%	0	0	$\Diamond$	$\Diamond$	$\Diamond$	Х
Heavy Duty (HD)	1300	1.00	697	100%	$\Theta$	0	0	$\Diamond$	$\Diamond$	$\Diamond$
	Maximum I	oad with coupler (	payload + bucket)	kg	2210	2025	1915	1755	1730	1570

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 General Duty tips.

### **Maximum Material Density:**

- 2100 kg/m³
- 1800 kg/m³
- → 1500 kg/m³
- O 1200 kg/m<sup>3</sup>
- ♦ 900 kg/m³
- 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.

## **Bucket Specifications and Compatibility – Europe**

	Width	Capacity	Weight	Fill		Reach	Boom		VA B	oom
	mm	m³	kg	%	R2.25 m	R2.6 m	R2.9 m	R3.1 m	R2.25 m	R2.6 m
With Quick Coupler (CW30/CW30	s)									
General Duty (GD)	600	0.35	400	100%	•	•	•	•	•	•
	750	0.49	446	100%	•	•	•	•	•	•
	900	0.62	503	100%	•	•	•	•	•	•
	1100	0.79	562	100%	•	•	•	•	$\Theta$	$\Theta$
	1200	0.91	607	100%	•	•	$\Theta$	$\Theta$	0	0
	1300	1.00	637	100%	•	$\Theta$	$\Theta$	0	0	$\Diamond$
	1400	1.09	667	100%	$\Theta$	0	0	0	$\Diamond$	$\Diamond$
Heavy Duty (HD)	1200	0.91	623	100%	•	•	$\Theta$	$\Theta$	0	0
	1300	1.00	655	100%	•	$\Theta$	$\Theta$	0	0	$\Diamond$
	1400	1.09	686	100%	$\Theta$	0	0	$\Diamond$	$\Diamond$	$\Diamond$
	Maximum I	oad with coupler (	payload + bucket)	kg	2380	2195	2085	1925	1900	1740

## **Bucket Specifications and Compatibility – Australia/New Zealand**

	Width	Capacity	Weight	Fill		Reach	Boom	
	mm	m³	kg	%	R2.25 m	R2.6 m	R2.9 m	R3.1 m
With Center-Lock Quick Coupler								
General Duty (GD)	500	0.30	403	100%	•	•	•	•
	600	0.35	433	100%	•	•	•	•
	750	0.49	476	100%	•	•	•	•
	900	0.62	537	100%	•	•	•	•
	1050	0.76	590	100%	•	•	•	$\Theta$
	1200	0.91	645	100%	•	$\Theta$	0	0
	Maximum I	oad with coupler (	payload + bucket)	kg	2210	2025	1915	1755

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 General Duty tips.

#### **Maximum Material Density:**

- 2100 kg/m³
- 1800 kg/m<sup>3</sup>
- → 1500 kg/m³
- 1200 kg/m<sup>3</sup>
- ♦ 900 kg/m³

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.

### **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 and Stage IV emission standards
- 2300 m 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
- Jump start receptacle
- Ambient capability, 52° C

#### **HYDRAULIC SYSTEM**

- · Regeneration circuit for boom and stick
- Reverse swing damping valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing additional auxiliary pump and circuit

#### CAB

- Seat, high-back air suspension with heater
- Air pre-filter
- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- · Radial wiper and washer
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- · Beverage holder
- · Literature holder
- 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)
- Laminated glass front upper window and tempered other windows
- Seatbelt, 51 mm

#### UNDERCARRIAGE

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

#### COUNTERWEIGHT

• 3.4 mt

#### **ELECTRICAL**

- · Circuit breaker
- · Capability to electrically connect a beacon
- Capability to installing electric fuel lifting pump

#### **LIGHTS**

 Working lights, cab and boom mounted with time delay function

#### **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
- · Rearview camera

#### **TECHNOLOGY**

• Product Link

## 318F L Optional Equipment

## **Optional Equipment**

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

#### **ENGINE**

- · Quick drains, engine and hydraulic oil
- · Battery, cold weather

#### **HYDRAULIC SYSTEM**

- Control pattern quick-changer, two way
- · Auxiliary hydraulics
- Boom and stick high pressure lines
- Boom and stick medium pressure lines
- · Boom, stick and bucket QC lines
- Cat Bio hydraulic oil
- Electric refueling pumping

#### CAB

- · Left pedal
- · Straight travel pedal
- Rain protector
- · Roll-down sunscreen
- AM/FM radio (ANZ only)
- · Radio with MP3 auxiliary audio port
- · Travel alarm

#### **UNDERCARRIAGE**

- 500 mm triple grouser shoes
- 600 mm triple grouser shoes
- 700 mm triple grouser shoes
- 790 mm triple grouser shoes
- Full-length track guiding guard
- Heavy duty bottom guard
- Segmented (2 piece) track guiding guard
- · Center track guiding guard

#### **FRONT LINKAGE**

- Reach boom, 5.1 m [with Boom Lowering Control Valve (BLCV), Stick Lowering Control Valve (SLCV)]
- -3.1 m stick
- -2.9 m stick
- -2.6 m stick (with/without Grade Control)
- -2.25 m stick
- Variable Angle boom (with BLCV, SLCV)
- -2.6 m stick (with/without Grade Control)
- -2.25 m stick
- Bucket linkage (with lifting eye)
- CW dedicated and Pin Grabber quick couplers

#### **SECURITY**

- Falling Object Guard Structure (FOGS), bolt-on
- · Side steel bumper
- Right sideview camera

#### **TECHNOLOGY**

• Cat Grade Control Depth and Slope

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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AEHQ7943 (AUZ, EU)

