### M318F Wheeled Excavator 2017





Engine
--------

Ligino
Engine Model
Emissions
Net Power (Maximum)
ISO 9249 at 1,750 rpm
ISO 9249 at 1,750 rpm (metric)
ISO 14396 at 1,750 rpm (gross)
ISO 14396 at 1,750 rpm (gross) (metric)
Weights

**Operating Weight** 

Cat<sup>®</sup> C7.1 ACERT™ EU Stage IV

126 kW (169 hp) 171 hp (PS) 129.4 kW (174 hp) 176 hp (PS)

#### **Bucket Specifications**

Baonot oppositionationo		
Bucket Capacities	0.35 m <sup>3</sup> -1.09 m <sup>3</sup>	
Working Ranges		
Maximum Reach at Ground Level	9405 mm	
Maximum Digging Depth	6090 mm	
Drive		
Maximum Travel Speed	35 km/h	

16 690 kg-20 300 kg

#### **M318F Features**

#### Made to keep your costs down.

Not only does the machine give you all the versatility you need, but it does so while providing a great deal of precision, and speed with an absolute minimum fuel consumption - and zero impact on your efficiency.

#### Made to make operation easy and pleasant.

Have a seat, you will be impressed by the quietness and comfort of the cab. Feel relaxed, we help you make sure you're safe.

#### **Enjoy integrated technologies;** they act transparently.

When you add the ground level grouped service points that make your maintenance quick and easy, and multiple Cat attachments that help you do all kinds of jobs, you simply won't find a better machine.

#### **Contents**

Sustainability	4
Engine	5
Built-in Fuel Savers That Add Up	5
Premium Comfort	6
Simplicity and Functionality	7
The Next Generation	8
Smart Technologies	9
Dig and Go Auto Axle Lock	9
Hydraulics	10
Undercarriage	11
Booms and Sticks	12
SmartBoom <sup>™</sup>	13
Ride Control	13
Attachments	14
Serviceability	16
Integrated Technologies	17
Safety	18
Unmatched Visibility	20
Complete Customer Care	20
Specifications	21
Standard Equipment	33
Optional Equipment	35

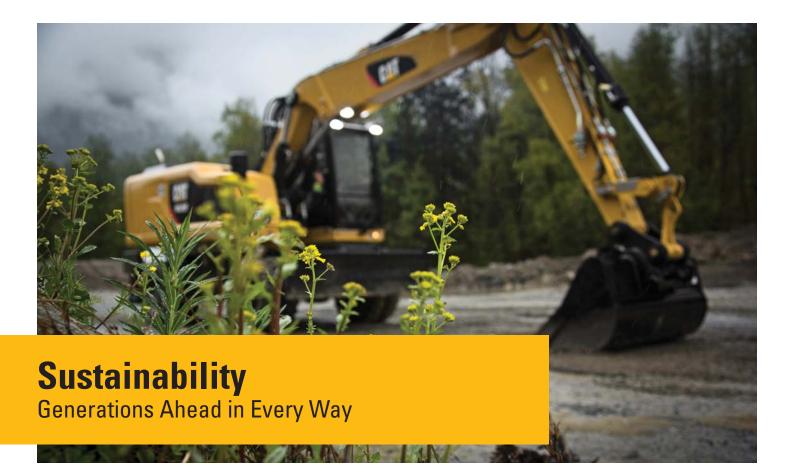
4





The new F Series generation is here to help you take on the wide variety of challenges you face every day, more easily and with more pleasure.

F Series Wheeled Excavators – Easier Than Ever.



#### **Fuel Efficiency and Reduced Exhaust Emissions**

The engine meets Stage IV emission standards, is powerful and efficient, with an optimized 10% fuel consumption improvement versus the previous model and no impact on your productivity. This means less resource consumption and fewer  $CO_2$  emissions.

#### **Quiet Operation**

Outstandingly low sound levels, you won't believe your machine is running.

#### **Transparent Technologies and Longer Service Intervals**

- The Eco Mode, Auto Engine Speed Control and Engine Idle Shutdown help further reduce your overall fuel consumption.
- Product Link<sup>™</sup> allows remote monitoring of the machine and helps improve overall efficiency.
- Your Cat dealer can help extend service intervals, meaning fewer fluids and disposals, all adding up to lower costs.

#### **Biodiesel and Biodegradable Hydraulic Oil**

- The M318F has the flexibility of running on either ultra-lowsulfur diesel (ULSD) fuel with 10 ppm of sulfur or less or up to B20 biodiesel fuel blended with ULSD.
- Cat BIO HYDO Advanced HEES<sup>™</sup> reduces the impact on the environment.

#### **Cat Certified Used**

This program is a key element in the range of solutions offered by Caterpillar and Cat dealers to help customers achieve growth at the lowest cost while eliminating waste. Used equipment is inspected, guaranteed and ready for work and customers will benefit from a Caterpillar warranty.

### **Engine** Power, Reliability, and Fuel Economy

### The Power and Performance You Need

#### **Constant Power Strategy**

Provides a quick response to changing loads, while delivering the same amount of power regardless of operating conditions.

#### A Transparent Emission Solution That Works.

The Cat C7.1 ACERT engine meets today's Stage IV emission standards, and it does so without interrupting your job process. It is designed to be:

- Transparent: no operator intervention
- Durable: fit for life Diesel Particulate Filter
- Efficient: no work interruption, even in case of extended idling time
- **Simple:** minimum maintenance. Longitudinal engine installation, which further simplifies maintenance.

#### **Biodiesel Not a Problem**

The engine can run on B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

#### **Proven Technology**

To assure that our technology will meet your expectations for reliable trouble-free service, we subjected these engines and technologies to extensive operating hours of test and validation.





# Built-in Fuel Savers That Add Up

- Automatic Engine Speed Control: lowers engine speed when it is not needed.
- Engine Idle Shutdown: turns the engine off when it's been idling for more than a pre-set amount of time.
- **On-Demand Cooling System:** variable speed and on-demand fan.
- Enhanced Eco Mode: reduces engine speed while delivering the same power.
- Automatic Shift to Travel Mode when you start driving.
- NEW! Optimized Travel Mode: travel mode rpm levels are set automatically on-demand only to further reduce fuel consumption.

### **Premium Comfort** Keeps Operators Productive All Shift Long



#### Legacy from the Renowned Cat Wheeled Excavators

Designed for the operator, our cabs are unique.

#### **Ergonomic Layout**

- Frequently used switches are centralized, kept to the minimum and ideally located close to the joysticks.
- Storage compartments are useful... when well designed. Several areas provide sufficient room to store a hard hat, a drink, phone, or keys.

#### **Comfortable Seat Options**

Our seats provide all the comfort needed for a long day of work, including FULL adjustment. All seats are heated and air suspended. Automatic weight adjustment and ventilated seats are available.

#### **Safety Is Not Optional**

ROPS cab, compatible with FOPS, seat belt alarm, safety bar, sideview camera ... among others.

#### **Details That Make the Difference**

Have a look at the cab; you will see it is through details that we improve pleasure of operating.

#### **Smart Controls to Reduce Fatigue**

- Features like ride control, SmartBoom or Joystick Steering will be precious to increase your productivity.
- New technologies that work transparently like the swing and auto travel lock or the automatic brake and axle lock, reduce the number of tasks you need to do.

#### Plug, Charge and Play Your Devices

- The 12V 10A power supply socket is conveniently located for charging your laptop, or a tablet.
- A CD/MP3 Radio with speakers and USB port is available.







### Simplicity and Functionality For Ease of Operation

#### A Cab Just for You – Fully Adjustable

- Seat armrests, in height and angle
- Steering column adjustment, not only tilting fore/aft but also in height
- Hydraulic sensitivity of the machine to make it more or less aggressive
- NEW! Joystick and left pedal controls assignments: can be set up as desired and per tool
- NEW! Optional advanced joystick offering more controls (two sliders, five buttons each)
- Automatic air conditioning
- NEW! Optional heated mirrors are now also electrically adjustable from the cab

#### **Incredibly Low Sound Levels, Less Fatigue**

Increased cab pressure, preventing from dust entry, combined with the cab design contributes to reducing sound.

#### **Outstanding Visibility: See the Difference!**

- All glass areas have been drastically increased
- Standard LED working lights and halogen roading lights
- LED dome light
- Standard rearview AND sideview wide angle cameras
- Wide angle mirrors for a better visibility even down to the ground
- Parallel intermittent (four speeds) wipers covering the whole windshield

#### NEW! Standard LED Lights for BOTH Cameras to See What's Going on Around, Day or Night

The rear camera is integrated into the counterweight for enhanced protection.

#### **NEW! Split-Screen View of BOTH Cameras on the Same Monitor**

The views from both cameras are displayed side by side on the additional wide color monitor for better visibility at first glance.

#### Large Color Machine Monitor

Easy to read and in local language, the high resolution LCD monitor will keep you aware of any important information. "Quick Access" buttons allow a quick selection of favorite functions. The tool select function lets you preset up to ten different hydraulic attachments (including the new Cat Tilt-Rotator) for quick tool changes.

### The Next Generation Easier Than Ever



#### Make the Move to the Next Generation

Refinements. From the whole design to the smallest details. Convenient features, new advanced and transparent technologies, not only to reduce emissions but to further improve your daily experience when working with our products.

#### **Cruise Control – Focus on the Road, Not on Your Foot**

No need to press the pedal all the time.

- Choose the very speed you wish
- Press the quick access button on the monitor
- Enjoy the ride

#### It's as Easy as That.

#### NEW! Trailer-Ready Package – Hitch-Up Your Trailer and Go

How to be more autonomous than ever while increasing your flexibility?

Our trailer-ready package includes all the necessary electrical and hydraulic systems, even for trailers equipped with a tailgate and dumping devices.

Moving your tools, and fuel along with you to each job site or material directly on site has never been easier!



# **Smart Technologies**

#### Swing and Auto Travel Lock: Press, Go and Relax

No need for the operator to bend to engage the swing lock pin.

- Just press a button,
- Align the upper to the lower frame,
- Enjoy the ride: a green indicator confirms the swing and the implements have been automatically locked.
- NEW! The swing lock can be applied independently from the implements lock at low speed (below 5 km/h)

#### It's As Easy As That.

#### Integrated Pin Code – Switch Off and Relax

No need to buy an optional security system to protect your equipment against theft.

- The pin code is integrated into the monitor (standard)
- Entering the right code allows the engine to start

The Machine Security System (MSS - optional) adds even more protection when needed.

It's as Easy as That.





# Dig and Go Auto Axle Lock

Presses the Pedal for You, Reducing the Number of Actions You Need to Do

The machine automatically detects when the service brake and axle need to be locked (like when digging), or unlocked (roading), hence removing the need for the operator to systematically press the pedal.

Brake and axle are released automatically by pressing the travel pedal again.

### Hydraulics Fast, Precise, Flexible

#### When it comes to moving material quickly, you need efficient hydraulics – the type the F Series can deliver.

#### **Efficient Design, Smart and Fast**

- Simple Design: The new hydraulic valve compartment and routings offer a simple and clean design to help ensure durability.
- Smart Main Hydraulics: The system allows reducing the load on the engine when not needed, which translates into lower fuel consumption.
- **Dedicated Swing Pump:** A closed hydraulic circuit is dedicated to the swing only. Having two separate pumps, one for the swing and the second for the other functions allows faster and smoother combined movements.

#### **Control Like No Other**

- Electronic Pump Control Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the Electronic Pump Control (EPC) that's designed to improve response time and precision. It puts flow exactly where you need it, when you need it, which means a much smoother operation and greater efficiency.
- Adjustable Hydraulic Sensitivity Allows you to adjust the aggressiveness of the machine according to the application.
- Stick Regeneration Circuit Increases efficiency and helps enhance controllability for higher productivity.

#### Proportional Auxiliary Hydraulics, Tremendous Versatility

Medium, high pressure and hydraulic quick coupler lines and circuits: they all come standard.







### **Undercarriage** Strength and Versatility at 35 km/h









#### **Heavy Duty Axles**

Long life with effective heavy duty axles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance. The front axle offers wide oscillating and steering angles. The drive shaft offers longer service intervals (1,000 hours).

#### **Advanced Disc Brake System**

Minimizes the rocking effect when working free on wheels. The disc brake system acts directly on the hub instead of the drive shaft to avoid planetary gear backlash.

#### Fenders (optional)

Fenders provide excellent coverage of all tires, protecting the machine and surroundings from mud and stones being thrown up.

#### **Joystick Steering**

Keep both hands on the joysticks even when simultaneously moving the implements and repositioning the machine, by the use of the slider switch on the right joystick.

#### **Blade Design**

- Optimized design to provide rigidity, stability and ease of maintenance.
- Parallel kinematic to keep the blade parallel to the ground, in every height position.
- A profile that allows material to roll better and minimizes material packing.

# **Booms and Sticks**

Options To Take on Your Far-reaching or Up-close Tasks

#### **Rugged Performance**

Booms and sticks are welded, box section structures with thick, multi-plate fabrications in high stress areas for the tough work you do.

#### Flexibility

The choice of various booms and sticks provides the right balance of reach and digging forces for all applications.

#### Sticks

- Short stick 2100 mm for maximum breakout force and lifting capability
- Medium stick 2400 mm for greater crowd force and lift capacity
- Long stick 2600 mm for greater depth and reach
- Industrial stick 3100 mm for use with grapples in material handling and industrial applications

#### Booms

- Variable Adjustable (VA) improved right side visibility and roading balance. When working in tight quarters or lifting heavy loads, the VA boom offers the best flexibility.
- **One-Piece Boom** Fits best for all standard applications such as truck loading and digging. A unique straight section in the curve of the side plate reduces stress flow and helps increase boom life.
- Offset Boom The large offset dimensions allow you to dig along walls, over obstacles, to grade while driving, and to dig under laid tubes without damaging them. The combination with a tiltable ditch cleaning bucket lets you operate a highly versatile system.





### **SmartBoom** Reduces Stress and Vibration

#### **Rock Scraping**

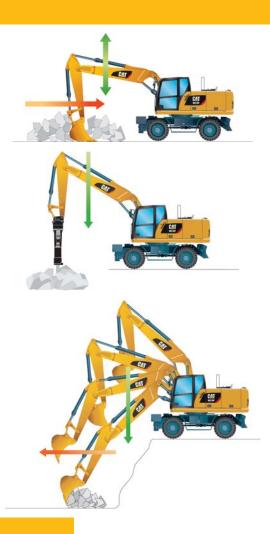
Scraping rock and finishing work is easy and fast. SmartBoom<sup>™</sup> simplifies the task and allows more focus on stick and bucket, while the boom freely goes up and down without using pump flow.

#### Hammer Work

The front parts automatically follow the hammer while penetrating the rock. Blank shots or excessive force on the hammer are avoided resulting in longer life for the hammer and the machine. Similar advantages with vibratory plate compactors.

#### **Truck Loading**

Loading trucks from a bench is more productive and fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.



### **Ride Control** Fast Travel Speed with More Comfort

The ride control system lets you travel faster over rough terrain with improved ride quality for the operator. Accumulators are acting as shock absorbers to dampen the front part motion. It can be activated through a button located on the soft switch panel in the cab.







#### NEW! Cat Tilt-Rotator and Tilt-Rotator-Ready Option – If You Need Extreme Versatility, You Need a Cat Tilt-Rotator

Tilt-Rotators eliminate the need to constantly reposition the machine, by providing a 40° tilt and 360° rotary connection between its integrated quick coupler and any Cat attachment.

The wheeled excavator Tilt-Rotator-Ready Package includes all that you need, with lines, circuits, software and advanced joysticks. This is a perfectly integrated interface between the machine and this tool.

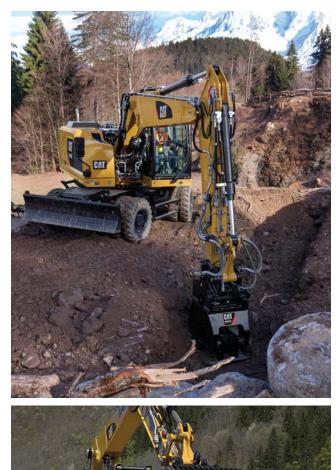
NEW! Cat Tilt-Rotator parameters can be set directly from the machine monitor.

### Attachments Get the Most Out of Your Equipment



#### Save Time with Every Tool Change

**Perform hydraulic tool changes in seconds** ... The new Auto-Connect hydraulic coupler automates tool exchange fully, so operators can change attachments quickly, from the safety and comfort of their cabs. The unique design of the Auto-Connect prevents ruptured hoses, avoiding unplanned downtime. It makes your operators more efficient and productive.







#### **Power Match**

Match your Cat hydraulic attachments to your Cat machine, and get the most out of the standard, built-in software. Attachment changes have never been easier!

#### Get the Most from Your Machine

If you have multiple tasks to get done, the M318F can help. And, you can easily expand all the possibilities it offers by utilizing any of the variety of Cat attachments.

#### **Change Jobs Quickly**

A quick coupler brings the ability to quickly change attachments and increase your flexibility. The quick coupler circuit and lines are compatible with both Cat dedicated and Pin Grabber Couplers and do not require any change or addition to the machine.

#### Dig, Load and Landscape

A wide range of buckets offers solutions for digging, excavating, trenching, loading and finishing. Ditch Cleaning buckets are suitable for grading and finishing in landscaping applications or for loading loose material that is stockpiled, where teeth would damage the surface.

#### Sort and Handle Material

With increasing environmental regulations, you need efficient ways to deal with waste. Save on transportation, manpower and dumping costs with Cat grapples by sorting debris at source and trucking it separately. When you need good penetration, you can count on Cat digging grabs.

#### **Build, Compact and Maintain Roads**

Whether you do finish grading with leveling buckets, ditch cleaning, sewer and water, or compaction, the machine in combination with the appropriate attachment will do the job quickly.

#### **Break and Scrap**

When a structure needs to be demolished, it has to be done quickly. The Cat MP300 Multi-Processors let you do exactly that. Cat E Series hammers deliver very high blow rates, and shears provide effective scrap processing. They also have the ability to rotate 360°.

### Serviceability When Uptime Counts

#### **Convenient Access Built In**

You can reach routine maintenance items like fuel and engine oil filters and fluid taps at ground level while fuel and DEF tanks with engine air filter are accessible from the safety of the slip-resistant new service platform. Compartments feature wide composite service doors, designed to be more resistant to shocks, which all include gas struts to facilitate the opening. Components are now gathered in specific dedicated compartments, like the special electrical and cooling compartments.

#### A Smart Design for Any Temperature

The side-by-side coolers and axial fan design allows greater cooling performance. The system is completely separated from the engine compartment to reduce noise and heat and all radiators are gathered in the same compartment while featuring easy-to-clean cores with a tilting device that requires no tool to unlock.

#### A Fresh Idea

Ventilation inside the cab allows outside air to enter through a fresh air filter. The filter is located on the side of the cab to make it easy to reach, and it is protected by a lockable door that can be opened with the ignition key.

#### **Lube and Fuel Standard Features**

An electric lubrication system is a time-saving standard feature for greasing the whole upper carriage. Greasing points for the undercarriage are kept to a minimum and grouped. The new drive shaft extends greasing intervals from 500 hours to 1,000 hours and allows simultaneous greasing with the lower axle bearing. An electric refueling pump is also standard. The hose is stored in a dedicated tray, for more cleanliness. Add in the new electric lift pump removing the need to prime the system manually, the standard fuel and water separator and you get a machine that does the fastidious maintenance works for you.

#### Keep it simple.





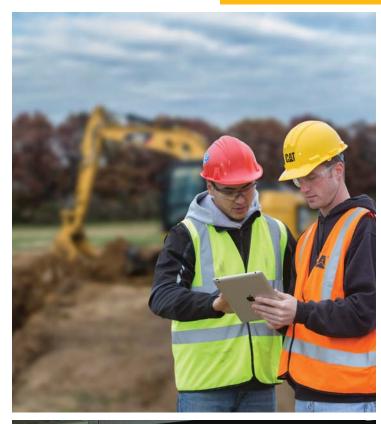


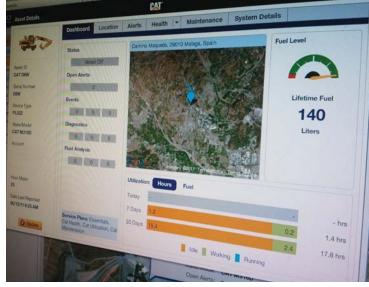


### **Integrated Technologies** It Pays to Know

Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technologyequipped machines, you'll get more information and insight into

your equipment and operations than ever before.





# CAT<sup>®</sup> CONNECT



MANAGEMENT







PRODUCTIVITY

**SUSTAINABILITY** 

EQUIPMENT MANAGEMENT

Equipment Management - increase uptime and reduce operating costs.

Cat Connect technologies offer improvements in these key areas:



Productivity – monitor production and manage job site efficiency.



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

Featured Cat Connect technologies include the following:

#### Link

Link technologies provide wireless capability to machines to enable two-way transfer of information collected by on-board sensors, control modules, and other Cat Connect technologies.

#### Manage Your Machine Remotely

Cat Product Link is a system that is deeply integrated into the machine monitoring system to take the guesswork out of managing your equipment. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes and shares it with you through VisionLink® to help you maximize efficiency, improve productivity, and lower operating costs.

### **Safety** Your Safety Is NOT Optional

#### **Cab Ingress**

We bring a solution to allow you to safely climb into the cab:

- Three longer access steps, aligned with the cab entry
- Anti-skid plates on all walkways and steps reducing slipping hazards
- Convenient door handrail
- Tiltable console to make sure the way in and out is free of obstacle

#### Safe and Quiet Cab

The cab provides you with a safe environment. It also contributes to your comfort with limited vibrations and low sound levels.







#### **Embedded Features**

Smart embedded devices help enforce safe behavior:

- 1) Laminated windshield and skylight window. One-piece 10 mm windshield and skylight, fulfilling EN356 P5A standards.
- 2) Lowering check valves
- 3) Safety seat belt indicator
- 4) Safety lever
- 5) Emergency shut-off switch
- *6)* Automatic brake and axle lock
- 7) Punched, anti-slippery walking surfaces
- 8) Battery disconnect switch
- 9) Swing and implement electronic lock
- 10) Adjustable travel alarm
- 11) All doors equipped with gas struts cylinders
- 12) Emergency hammer and exit
- 13) ROPS compliant and front/top guards compatible cab
- 14) Sound proofing
- 15) Beacon available

NEW! Quick coupler control switch, ISO 13031 compliant

#### **Smart Lighting**

- LED lights for all working lights for enhanced night-time visibility
- Halogen lights for front roading lights
- LED dome light for better illumination inside the cab
- NEW! Dedicated LED lights for both rear and side cameras

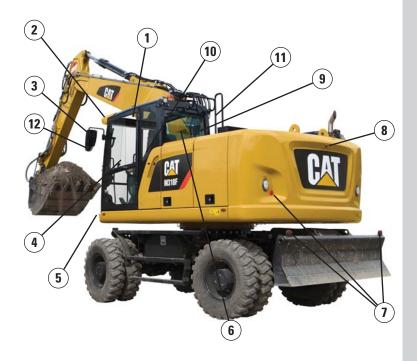


#### **Great Views**

- Enlarged glass gives you excellent visibility to the front, top, rear, and sides, even to the right
- Standard rearview camera gives you a clear field of view behind the machine
- Standard sideview camera, to check nothing is hidden to you from the front right hand side to the rear of the machine
- NEW! Monitor split-screen to easily check cameras rearview and sideview on the same display
- Lenses of all the cameras are wide angle and heated
- All mirrors are wide angle and allow view not only around the machine but also to the ground

# **Unmatched Visibility**

Make Sure Nothing Is Hidden to You



**Visibility all around is critical**, especially for machines which go on public roads.

- 1) Increased skylight and windshield glass areas
- 2) Improved lighting with standard LED lights for all working lights
- *3)* Optional electrically adjustable and heated mirrors
- 4) Great left hand side visibility with all glass door
- 5) Halogen roading lights
- 6) Wide rear window
- 7) Red reflectors, on counterweight and rear blade/outriggers
- 8) Standard wide rearview camera with LED light
- 9) Standard wide sideview camera with LED light
- 10) Split-screen display of both cameras on the same monitor
- 11) Large right hand side window
- 12) Mirrors, wide angle, with additional lower mirror for ground visibility

### **Complete Customer Care** Your Cat Dealer Will Support You Like No Other

#### **Support You Can Count On**

From helping you to choose the right machine to knowledgeable on-going support, Cat dealers provide the best-in-sales and services.

- Best long-term investment with financing options and services
- Productive operation with training programs
- Preventive maintenance and guaranteed maintenance contracts
- Uptime, with best-in-class parts availability
- Repair, rebuild, or replace? Your dealer can help evaluate the best option.



### **M318F Wheeled Excavator Specifications**

Engine	
Engine Model	Cat C7.1 ACERT (1)
Ratings	1,750 rpm
Engine Gross Power (maximum)	
ISO 14396	129.4 kW (174 hp)
ISO 14396 (metric)	176 hp (PS)
Net Power (Rated) <sup>(2)</sup>	
ISO 9249/SAE J1349	126 kW (169 hp)
ISO 9249/SAE J1349 (metric)	171 hp (PS)
80/1269/EEC	126 kW (169 hp)
Net Power (maximum)	
ISO 9249/SAE J1349	126 kW (169 hp)
ISO 9249/SAE J1349 (metric)	171 hp (PS)
80/1269/EEC	126 kW (169 hp)
Bore	105 mm
Stroke	135 mm
Displacement	7.01 L
Maximum Torque at 1,380 rpm	783 N·m
Number of Cylinders	6

<sup>(1)</sup> Meets Stage IV emission standards.

<sup>(2)</sup> Rated speed 1,750 rpm. Constant power from 1,500-1,750 rpm.

• Net power advertised is the power available at the flywheel when engine is equipped with air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed.

• No deratings required up to 3000 m altitude. Automatic derating occurs after 3000 m.

#### Transmission

Forward/Reverse	
1st Gear	10 km/h
2nd Gear	35 km/h
Creeper Speed	
1st Gear	3 km/h
2nd Gear	12 km/h
Drawbar Pull	103 kN
Maximum Cradaability (at 17,500 lta)	750/

Maximum Gradeability (at 17 500 kg) 75%

330 L
34.5 L
46.9 L
18.5 L
14 L
10.5 L
2.5 L
2.5 L

Maximum Swing Speed	9.7 rpm
Maximum Swing Torque	42 kN·m
Undercarriage	
Ground Clearance	360 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	±9°
Minimum Turning Radius	
Standard Axle	
Outside of Tire	6400 mm
End of VA Boom	7000 mm
End of One-Piece Boom	8300 mm
End of Offset Boom	7000 mm
Wide Axle	
Outside of Tire	6550 mm
End of VA Boom	7100 mm
End of One-Piece Boom	8500 mm
End of Offset Boom	7100 mm
Maximum Towable Trailer Mass	8000 kg
Weights	
Operating Weights*	16 930 kg-19 160 kg
Weights	
VA Boom	
Rear Dozer Only	17 410 kg
Rear Dozer, Front Outriggers	18 410 kg
Front and Rear Outriggers	18 610 kg
One-Piece Boom	
Rear Dozer, Front Outriggers	17 930 kg
Front and Rear Outriggers	18 130 kg
Offset Boom	
Rear Dozer, Front Outriggers	18 960 kg
Front and Rear Outriggers	19 160 kg
Sticks**	
Short, 2100 mm	690 kg
Medium, 2400 mm	720 kg
Long, 2600 mm	740 kg
Industrial – Drop Nose, 3100 mm	420 kg
Counterweights	
Standard	3400 kg
Optional	3900 kg

\*Operating weight includes medium stick, 3400 kg counterweight, full fuel tank, operator, quick coupler (210 kg), bucket (600 kg) and dual pneumatic tires. Weight varies depending on configuration.

\*\*Includes cylinder, bucket linkage, pins and standard hydraulic lines.

### **M318F Wheeled Excavator Specifications**

Hydraulic System		
Tank Capacity	122 L	
System	210 L	
Maximum Pressure		
Implement Circuit		
Normal	350 bar	
Heavy Lift	370 bar	
Travel Circuit	350 bar	
Auxiliary Circuit		
High Pressure	350 bar	
Medium Pressure	185 bar	
Swing Mechanism	370 bar	
Maximum Flow		
Implement/Travel Circuit	250 L/min	
Auxiliary Circuit		
High Pressure	250 L/min	
Medium Pressure	49 L/min	
Swing Mechanism	84 L/min	

#### **Tires**

<u> </u>	
Standard	10.00-20 (Dual Pneumatic)
Optional	11.00-20 (Dual Pneumatic)
-	445/70/R19.5 TL XF
	(Single Pneumatic)
	10.00-20 (Dual Solid Rubber)
	315/70R22.5
	(Dual Pneumatic –
	No spacer ring between tires)

Dozer Blade		
Blade Type	Parallel	
Width (standard axles)	2550 mm	
Width (wide axles)	2750 mm	
Blade Roll-Over Height	576 mm	
Blade Total Height	680 mm	
Maximum Lowering Depth from Ground	131 mm	
Maximum Raising Height Above Ground	490 mm	

#### **Emissions and Safety**

Engine Emissions	Stage IV
Diesel Exhaust Fluid	Must meet ISO 22241
Fluids (Optional)	
Cat Bio HYDO <sup>™</sup> Advanced	Readily biodegradable EU Flower eco-label certified
Biodiesel up to B20	Meets EN 14214 or ASTM D6751 with EN590 or ASTM D975 Standard Mineral diesel fuels
Vibration Levels	
Maximum Hand/Arm	
ISO 5349:2001	<2.5 m/s <sup>2</sup>
Maximum Whole Body	
ISO/TR 25398:2006	<0.5 m/s <sup>2</sup>
Seat Transmissibility Factor	
ISO 7096:2000-spectral class EM5	<0.7 m/s <sup>2</sup>
Standards	
ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS

	Caterpillar meets ROPS criteria ISO 12117-2:2008
Operator Protective Structure:	FOPS (Falling Object
Top/Front Guards	Protective Structure)
	meets FOPS criteria
	ISO 10262:1998 and
	SAE J1356:2008
Cab/Sound Levels	Meets appropriate
	standards as listed

#### **Sound Performance**

Operator Sound		
2000/14/EC	71 dB(A)	
Spectator Sound		
2000/14/EC	99 dB(A)	

• Operator Sound – The operator sound level is measured according to the procedures specified in 2000/14/EC, for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed.

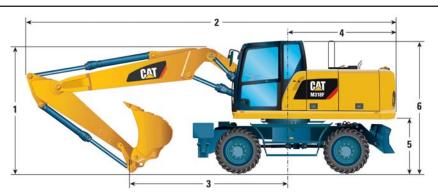
• Exterior Sound – The labeled spectator sound power level is measured according to the test procedures and conditions specified in 2000/14/EC.

• Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/ windows open) for extended periods or in noisy environment(s).

22

#### Dimensions

All dimensions are approximate. Values are with 10.00-20 pneumatic tires.



		Varia	ble Adj	ustable	Boom	(	)ne-Pie	ce Boor	n	Offset	Boom
Stick Length	mm	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm		33	320			33	20		33	20
2 Shipping Length	mm	8610	8610	8600	8580	8450	8460	8460	8480	8600	8560
3 Support Point	mm	3910	3650	3550	3640	3560	3270	3150	3220	4010	3770
4 Tail Swing Radius	mm					23	300				
5 Counterweight Clearance	mm					12	280				
6 Cab Height – No Falling Object Guard, Handrails Lowered	mm					31	.90				
No Falling Object Guard, Handrails not Lowered	mm					32	260				
With Falling Object Guard	mm					33	320				
7 Overall Machine Width					Sta	ndard/	Wide A	xles			
Width with Outriggers on Ground	mm					36	580				
Width with Outriggers Up	mm					25	550				
Width with Blade	mm					2550	/2750				
8 Maximum Outriggers Depth	mm					120	mm				



#### Undercarriage with dozer only



\* Maximum tire clearance with outrigger fully down



Undercarriage with 2 sets of outriggers



Roading position with 2400 mm stick

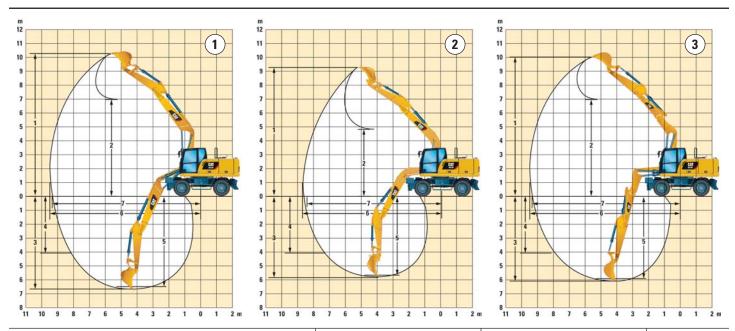


Undercarriage with 1 set of outriggers and dozer



### **M318F Wheeled Excavator Specifications**

#### **Working Ranges**



			(					2)			3)
		Varia	able Adjı	ustable B	oom		One-Pie	ce Boom		Offset	Boom
Stick Length	mm	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400
1 Digging Height	mm	10 090	10 275	10 435	8970	9045	9140	9255	7720	10 125	10 320
2 Dump Height	mm	6945	7135	7265		6000	6110	6225		6980	7175
3 Digging Depth	mm	5595	5890	6090	5030	5390	5690	5890	4820	5600	5895
4 Vertical Wall Digging Depth	mm	4365	4600	4780		4490	4665	4845		4410	4650
<b>5</b> Depth 2.5 m in Straight Clean-Up	mm	5485	5785	5985		5170	5490	5700		5490	5790
6 Reach	mm	9120	9385	9580	8370	8920	9175	9365	8130	9135	9405
7 Reach at Ground Level	mm	8935	9210	9405	8170	8730	8995	9190	7920	8950	9225
Bucket Forces (ISO 6015)	kN		114		_		114		—	11	14
Stick Forces (ISO 6015)	kN	84	77	73		84	77	73		84	77

Industrial stick has no bucket linkage. Working range dimensions refer to stick nose pin, with pneumatic tires.

Range values are calculated with GD Bucket, 1200 mm, 0.91 m<sup>3</sup> with tips K080 and CW-20-H.4.N. quick coupler with a tip radius of 1574 mm.

Breakout force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1237 mm.

#### **Bucket Specifications and Compatibility**

Contact your Cat dealer for special bucket requirements.

Without Quick Couple	r						Varia	able	Adjı	ıstab	ole B	oom						One <sup>-</sup>	Pied	ce B	oom					0	ffset	Boo	m		
Counterweight									3.4	mt									3.4	mt							3.9	mt			
Stick Length					2100	) mm			2400	mm			2600	mm			2400	mm			2600	mm			2100	mm			2400	mm	I
	Width	Capacity	Weight	e on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	l set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	e on wheels	Dozer lowered	l set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized
	mm	m <sup>3</sup>	kg	Free	Doz	1 se	Full	Fre	Doz	1 se	Full	Fre	Doz	1 se	Full	Free (	Doz	1 se	Full	Fre	Doz	1 se	Full	Fre	Doz	1 se	Full	Fre	Doz	1 se	Full
	750	0.49	464																												
	1100	0.79	583																												
General Duty (GD)	1200	0.91	651																												
	1300	1.00	663																												
	1400	1.09	712																												
Heavy Duty (HD)	1300	1.00	699																												
Ditch Cleaning (DC)	2000	0.54	431																												
Ditch Cleaning Tilt	1800	0.48	567																												
(DCT)	2000	0.53	597																												

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 1800 kg/m<sup>3</sup>

Maximum material density 1500 kg/m<sup>3</sup>

Maximum material density 1200 kg/m<sup>3</sup>

Maximum material density 900 kg/m<sup>3</sup>

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**

Contact your Cat dealer for special bucket requirements.

With Pin Grabber Cou	pler			3.4 m 2100 mm 2400 n							ole B	oom						One <sup>.</sup>	Pied	ce B	oom					01	fset	Boo	m		
Counterweight				ers lowered															3.4	mt							3.9	mt			
Stick Length					2100	mm			2400	mm			2600	mm			2400	mm			2600	mm			2100	mm			2400	mm	1
	Width	Capacity	Weight	e on wheels	er lowered	et of stabilizers lowered	y stabilized	e on wheels	er lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	m <sup>3</sup>	kg	Fre	Doz		Full	Fre	Doz	1 S6	Full	Fre	Doz	1 SE	Full	Fre	Doz	1 SE	Full	Fre	Doz	1 SE	Full	Fre	Doz	1 SE	Full	Fre	Doz	1 S6	Full
	750	0.49	464																												
	1100	0.79	583																												
General Duty (GD)	1200	0.91	651																												
	1300	1.00	663																												
	1400	1.09	712																												
Heavy Duty (HD)	1300	1.00	699																												
Ditch Cleaning (DC)	2000	0.54	431																												
Ditch Cleaning Tilt	1800	0.48	567																												
(DCT)	2000	0.53	597																												

line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Maximum material density 1800 kg/m<sup>3</sup>

Maximum material density 1500 kg/m<sup>3</sup>

Maximum material density 1200 kg/m<sup>3</sup>

Maximum material density 900 kg/m<sup>3</sup>

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**

Contact your Cat dealer for special bucket requirements.

With Quick Coupler (	CW20/CV	V20s)					Vari	able	Adjı	ustal	ble B	oom	1					One	-Pie	ce B	oom					0	ffset	Boo	m		
Counterweight									3.4	mt									3.4	mt							3.9	mt			
Stick Length					2100	) mm	-		2400	) mm			2600	) mm			2400	mm			2600	mm			2100	) mm			2400	) mm	
	Width	Capacity	Weight	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	m <sup>3</sup>	kg	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful	Fre	Do	1 s	Ful
	600	0.35	431																												
	750	0.49	464																												
	900	0.62	524																												
General Duty (GD)	1100	0.79	583																												
	1200	0.91	633																												
	1300	1.00	663																												
	1400	1.09	693																												
	1200	0.91	649																												
Heavy Duty (HD)	1300	1.00	681																												
	1400	1.09	712																												

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/m<sup>3</sup>

Maximum material density 1800 kg/m<sup>3</sup>

Maximum material density 1500 kg/m<sup>3</sup>

Maximum material density 1200 kg/m<sup>3</sup>

Maximum material density 900 kg/m<sup>3</sup>

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.

#### **Work Tools Matching Guide**

When choosing between various work tool models that can be installed onto the same machine configuration, consider work tool application, productivity requirements, and durability. Refer to work tool specifications for application recommendations and productivity information.

											Var	iable	Adjı	ıstab	le Bo	oom									
	Counterweight						3.4	mt											3.9	mt					
			(1	)			()	2)			(;	3)			(1	)			(2	2)			(3	3)	
	Stick Length (mm)	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100
Indexulia Hammar	H110Es/H115Es																								
Hydraulic Hammer	H120Es																								
	G310B-D/R																								
	G310B-D/R fixed CAN																								
Demolition and Sorting	G313 GC																								
Grapple (D-Demolition	G313 GC fixed CAN																								
shells, R-Recycling shells)	G315 GC																								
	G315B-D/R																								
	G315B-D/R fixed CAN																								
Scrap and Demolition Shear	S320B/S325B																								
Compactor Plate	CVP75																								
Orange Peel Grapple	GSH15B 400L, 500L																								
(4 or 5 Tines)	GSH15B 600L, 800L			ть			hmo	nto o		, ailak	ala fa	r th o	M01	٥٢ ٥		ltura		*	lorf	~ ~ ~ ~		mot	- h		
Clamaball Crannia	CTV15 1000L, 1200L			In	lese	allat	mine	nts a	reav	anar	Die id	or the	10131	ог. U	onsu	it yoi	ur ca	it dea	aler i	or pr	oper	mate	:n.		
Clamshell Grapple	CTV15 1500L, 1700L																								
Pin Grabber Coupler	Cat-PG																								
	CW20-CW20s							Quio	ck co	upler	rs no	t con	npati	ble v	vith tł	ne dr	op no	ose s	stick.						
Dedicated Quick Coupler	CWAC-40 (AutoConnect)																								
Cat Tilt-Rotator System	TRS14					Tilt	-Rota	ator o	comp	atibl	e wit	h bu	ckets	s, cor	npac	tors,	ham	mers	s, and	l mo	re				

(1) Dozer lowered

(2) 2 sets outriggers lowered

(3) Dozer and outrigger lowered

Work Tool is a match Pin-on or dedicated coupler Pin-on only

Boom Mount Over the front only with dedicated coupler Over the front only with Pin Grabber coupler

Offerings not available in all areas. Matches are dependent on Wheeled Excavator configurations. Consult your Cat dealer to determine what is offered in your area

and for proper work tool match.

Note: Demolition and Sorting Grapple: fixed CAN - fixed hinge plates for CW quick coupler usage.

#### **Work Tools Matching Guide**

When choosing between various work tool models that can be installed onto the same machine configuration, consider work tool application, productivity requirements, and durability. Refer to work tool specifications for application recommendations and productivity information.

												One	-Pie	ce B	oom										
	Counterweight							mt												mt					
			(	1)			(2	2)			(;	3)			(1	)			(2	2)	1		(3	;)	
	Stick Length (mm)	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100
Hydraulic Hammer	H110Es/H115Es																								
	H120Es																								
Multi-Processor	MP318 CC and D Jaws																								
	MP318 S Jaw																								
Crusher	P315																								
Pulverizer	P215																								
	G310B-D/R																								
	G310B-D/R fixed CAN																								
	G313 GC																								
Demolition and Sorting Grapple (D-Demolition	G313 GC fixed CAN																								
shells, R-Recycling shells)	G315 GC																								
	G315 GC fixed CAN																								
	G315B-D/R																								
	G315B-D/R fixed CAN																								
Scrap and Demolition Shear	S320B/S325B																								
Compactor Plate	CVP75																								
Pin Grabber Coupler	Cat-PG																								
Dedicated Quick Coupler	CW20-CW20s							Quic	ck co	upler	rs no	t com	npati	ble w	/ith tł	ne dr	op n	ose s	tick.						
	CWAC-40 (AutoConnect)																								
Cat Tilt-Rotator System	TRS14					Tilt	-Rota	ator o	comp	atibl	e wit	h buo	ckets	, con	npac	tors,	ham	mers	s, and	d moi	re				
(1) Dozer lowered				Wo	rk To	ol is	a ma	tch						E	Boom	I Mo	unt								

(2) 2 sets outriggers lowered

(3) Dozer and outrigger lowered

Offerings not available in all areas. Matches are dependent on Wheeled Excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

Pin-on or dedicated coupler

Pin-on only

Over the front only

Note: Demolition and Sorting Grapple: fixed CAN - fixed hinge plates for CW quick coupler usage.

Over the front only with dedicated coupler

Over the front only with Pin Grabber coupler

#### Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, worktool: none, with counterweight (3900 kg), heavy lift on.

Load at	maximum re	ach (stick nose/bucket pin)	Load	d over fro	nt		ကြ Load	l over rea	r		🕞 Loa	d over si	de		Loa	ad point h	ieight	
Medium				3000 mm			4500 mm			6000 mm			7500 mm			÷	-	
Stick 2400 mm		Undercarriage configuration	ß	P	<b>P</b>	ŀ	6	<b>P</b>	Ŀ	6	P	Ð	P	Ē	4	6	P	mm
2400 11111	6000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down				*5400	*5400 *5400 *5400	4750 *5400 *5400	4800	3400 *4850 *4850	3000 3400 *4850				*3300	2950 *3300 *3300	2550 2950 *3300	6510
		2 sets of stabilizers down Wide rear dozer up				*5400	*5400 *5400	*5400 5200	*4850	*4850 3400	*4850 3250				*3300	*3300 2950	*3300 2800	
	4500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*6400 *6400	5200 *6400 *6400 *6400 5250	4550 5200 *6400 *6400 5000	4750 *4950	3350 *4950 *4950 *4950 3350	2900 3350 *4950 *4950 3200				*3100 *3100	2400 *3100 *3100 *3100 2400	2100 2400 *3100 *3100 2300	7300
	3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				7100 *7300	4850 *7300 *7300 *7300 4850	4150 4800 *7300 *7300 4600	4600 *5250	3200 *5250 *5250 *5250 3200	2750 3200 4800 *5250 3050	3250 *4250	2250 *4250 *4250 *4250 2250	1950 2250 3400 3950 2150	*3100 *3100	2150 *3100 *3100 *3100 2150	1850 2150 *3100 *3100 2050	7710
	1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				6700 *8650	4500 *8650 *8650 *8650 4500	3850 4500 7100 8400 4300	4400 *5750	3000 *5750 *5750 *5750 3050	2600 3000 4650 5400 2900	3200 *4450	2200 *4450 *4450 *4450 2200	1900 2200 3350 3900 2100	3000 *3200	2050 *3200 *3200 *3200 2050	1800 2050 3150 *3200 2000	7810
	0 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				6550 *8600	4350 *8600 *8600 *8600 4350	3700 4300 6900 8200 4100	4300 *6300	2900 *6300 *6300 *6300 2950	2500 2900 4500 5300 2800	3150 *4600	2150 *4600 *4600 *4600 2150	1850 2150 3300 3850 2050	3100 *3500	2100 *3500 *3500 *3500 2100	1850 2100 3250 *3500 2050	7600
	–1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up	*7100 *7100	*7100 *7100 *7100 *7100 *7100 *7100	6650 *7100 *7100 *7100 *7100	6500 *7650	4300 *7650 *7650 *7650 4300	3650 4300 6850 *7650 4100	4250 *5650	2900 *5650 *5650 *5650 2900	2500 2900 4500 5250 2750				3450 *4150	2350 *4150 *4150 *4150 2350	2050 2350 3600 *4150 2250	7050
	-3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*5800 *5800	4350 *5800 *5800 *5800 4400	3700 4350 *5800 *5800 4150										

\*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

#### Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, worktool: none, with counterweight (3900 kg), heavy lift on.

Load at	: maximum re	ach (stick nose/bucket pin)	Load	d over fro	nt		C Load	l over rea	ır		🕞 Loa	ıd over si	de	-	Loa	ad point h	-	
Long				3000 mm			4500 mm			6000 mm			7500 mm			×		
<b>Stick</b> 2600 mm		Undercarriage configuration	ß	5	P	ł	5	9	ł	5	P	ł	5	P	Ð	6	P	mm
2000 mm	6000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down				*4900 *4900	*4900 *4900 *4900 *4900	4800 *4900 *4900 *4900	*4750 *4750	3450 *4750 *4750 *4750	3000 3400 *4750 *4750				*3000 *3000	2800 *3000 *3000 *3000	2450 2800 *3000 *3000	6740
	4500 mm	Wide rear dozer up Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*5800 *5800	*4900 5250 *5800 *5800 *5800 5300	*4900 4550 5250 *5800 *5800 5000	4750 *4900	3450 3350 *4900 *4900 *4900 3350	3300 2950 3350 *4900 *4900 3200	*2900 *2900	2300 *2900 *2900 *2900 2300	2000 2300 *2900 *2900 2200	*2800 *2800	2800 2300 *2800 *2800 *2800 2300	2650 2000 2300 *2800 *2800 2200	7510
	3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*7150 *7150	4900 *7150 *7150 *7150 4900	4200 4850 *7150 *7150 4650	4600 *5200	3200 *5200 *5200 *5200 3200	2800 3200 4800 *5200 3050	3250 *4150	2250 *4150 *4150 *4150 2250	1950 2250 3400 3950 2150	*2800 *2800	2050 *2800 *2800 *2800 2050	1800 2050 *2800 *2800 2000	7910
	1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				6750 *8550	4550 *8550 *8550 *8550 4550	3850 4500 7100 8450 4300	4400 *5650	3050 *5650 *5650 *5650 3050	2600 3050 4650 5400 2900	3200 *4350	2200 *4350 *4350 *4350 2200	1900 2200 3350 3900 2100	2900 *2900	2000 *2900 *2900 *2900 2000	1700 2000 *2900 *2900 1900	8000
	0 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				6550 *8650	4350 *8650 *8650 *8650 4350	3700 4300 6900 8200 4100	4300 *6200	2900 *6200 *6200 *6200 2950	2500 2900 4500 5300 2800	3150 *4650	2150 *4650 *4650 *4650 2150	1850 2150 3300 3850 2050	3000 *3200	2050 *3200 *3200 *3200 2050	1750 2050 3100 *3200 1950	7800
	–1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up	*6850 *6850	*6850 *6850 *6850 *6850 *6850	6600 *6850 *6850 *6850 *6850	6500 *7850	4300 *7850 *7850 *7850 4300	3650 4250 6850 *7850 4050	4250 *5750	2850 *5750 *5750 *5750 2900	2450 2850 4450 5250 2750				3300 *3700	2250 *3700 *3700 *3700 2250	1950 2250 3450 *3700 2150	7270
	-3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*6100 *6100	4350 *6100 *6100 *6100 4350	3700 4300 *6100 *6100 4150	*4200 *4200	2950 *4200 *4200 *4200 2950	2500 2950 *4200 *4200 2800				*3550 *3550	2750 *3550 *3550 *3550 2750	2350 2750 *3550 *3550 2650	6330

\*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

#### Lift Capacities – Offset Boom

All values are in kg, bucket cylinder and bucket linkage installed, worktool: none, with counterweight (3900 kg), heavy lift on.

at maximum	reach (stick nose/bucket pin)	Load	d over fro	nt		P Load	over rea	r	(	🕞 Loa	d over si	de			ad point h	reight	
			3000 mm			4500 mm			6000 mm			7500 mm				-	
	Undercarriage configuration	P	6	P	ŀ	7	P	ŀ	6	P	ŀ	P	P	ł	7	P	mm
	Rear dozer up				*5450	*5450	4750	*4750	3350	2900				*2950	2800	2450	
	Rear dozer down					*5450	5450		*4750	3300					*2950	2800	
6000 mr	Dozer and stabilizer down					*5450	*5450		*4750	*4750					*2950	*2950	6530
	2 sets of stabilizers down				*5450	*5450	*5450	*4750	*4750	*4750				*2950	*2950	*2950	
	Wide rear dozer up					*5450	5200		3350	3200					2850	2700	
	Rear dozer up				*6250	5200	4450	4700	3250	2800				*2750	2250	1950	
	Rear dozer down					*6250	5150		*4850	3250					*2750	2250	
4500 mm	Dozer and stabilizer down					*6250	*6250		*4850	*4850					*2750	*2750	7320
	2 sets of stabilizers down				*6250	*6250	*6250	*4850	*4850	*4850				*2750	*2750	*2750	
	Wide rear dozer up					5200	4950		3250	3100					2250	2150	
	Rear dozer up				7000	4700	4000	4500	3050	2650	3150	2100	1800	*2750	2000	1700	
	Rear dozer down					*7100	4650		*5150	3050		*4150	2150		*2750	2000	
3000 mr	Dozer and stabilizer down					*7100	*7100		*5150	4700		*4150	3300		*2750	*2750	7730
	2 sets of stabilizers down				*7100	*7100	*7100	*5150	*5150	*5150	*4150	*4150	3850	*2750	*2750	*2750	
	Wide rear dozer up					4700	4450		3050	2900		2150	2050		2000	1900	
	Rear dozer up				6500	4250	3600	4250	2850	2450	3050	2050	1750	*2850	1900	1650	
	Rear dozer down					*8350	4250		*5600	2850		*4300	2050		*2850	1900	
1500 mn	Dozer and stabilizer down					*8350	6850		*5600	4500		*4300	3200		*2850	*2850	7820
	2 sets of stabilizers down				*8350	*8350	8200	*5600	*5600	5250	*4300	*4300	3750	*2850	*2850	*2850	
	Wide rear dozer up					4300	4050		2850	2750		2050	1950		1900	1850	
	Rear dozer up				6250	4050	3400	4100	2700	2300	3000	2000	1700	2950	1950	1650	
	Rear dozer down					*8250	4000		*6000	2700		*4450	2000		*3100	1950	
0 mr	Dozer and stabilizer down					*8250	6600		*6000	4350		*4450	3150		*3100	*3100	7610
	2 sets of stabilizers down				*8250	*8250	7950	*6000	*6000	5100	*4450	*4450	3700	*3100	*3100	*3100	
	Wide rear dozer up					4050	3800		2750	2600		2000	1900		1950	1850	
	Rear dozer up	*7300	*7300	6150	6200	4000	3350	4100	2700	2250				3300	2150	1850	
	Rear dozer down		*7300	*7300		*7300	4000		*5350	2700					*3600	2200	
-1500 mr	Dozer and stabilizer down		*7300	*7300		*7300	6550		*5350	4300					*3600	3450	7070
	2 sets of stabilizers down	*7300	*7300	*7300	*7300	*7300	*7300	*5350	*5350	5100				*3600	*3600	*3600	
	Wide rear dozer up		*7300	7050		4000	3800		2700	2550					2200	2100	
	Rear dozer up				*5450	4100	3450										
	Rear dozer down					*5450	4100										
-3000 mn	Dozer and stabilizer down					*5450	*5450										
	2 sets of stabilizers down				*5450	*5450	*5450										
	Wide rear dozer up					4100	3900										

\*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

#### **Standard Equipment**

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

#### ELECTRICAL

- Alternator, 115 A
- Lighting
  - LED light package, including all working lights (compatible with falling object guard). Working lights include cab mounted lights (two front, one rear), one on the counterweight for the rear camera, and one on the right for the sideview camera.
  - Boom LED working light
  - -Cab interior LED Light
  - Roading lights two front, halogen
  - Roading lights two rear, LED modules
- Main shut-off switch
- Maintenance free batteries, heavy duty
- Signal/warning horn
- Electrical refueling pump

#### ENGINE

- Cat C7.1 engine with ACERT Technology meets Stage IV emission standards
- Aftertreatment technologies including the Cat Clean Emission Module (Cat CEM) package
- Automatic Engine Speed Control (AESC), including one touch low idle
- Engine Idle Shutdown (EIS)
- Power mode selector
- Altitude 3000 m capability without de-rate
- Automatic starting aid
- Fuel/water separator with water in fuel switch
- Electric fuel priming pump

#### HYDRAULICS

- · Adjustable hydraulic sensitivity
- All Cat XT<sup>TM</sup>-6 ES hoses
- Anti-drift valves for bucket, and tool control/multi-function circuits
- · Auxiliary boom and stick lines
- Basic control circuits:
- Medium pressure
- Two-way, medium pressure circuit, for rotating or tilting of attachments
- Tool control/multi function
- One/two-way high pressure for hammer application or opening and closing of an attachment
- Programmable flow and pressure for up to 10 attachments – selection via monitor
- Quick coupler circuit and lines for hydraulic quick coupler (both Cat Pin Grabber and dedicated/CW Quick couplers, controlled by a dedicated switch)
- Boom Lowering Check Valve (BLCV), including overload warning device
- Electric Pump Control (EPC)
- Heavy lift mode
- · Load-sensing hydraulic system
- Separate swing pump
- Stick Lowering Check Valve (SLCV)
- Stick regeneration circuit

(continued on next page)

#### **Standard Equipment** (continued)

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

#### **OPERATOR STATION**

- Reinforced (ROPS) cab structure compliant with 2006/42/EC and tested according to ISO 12117-2:2008
- Adjustable armrests
- Air conditioner, heater and defroster with automatic climate control
- Cigarette lighter (24 volt)
- Beverage cup/can holder
- Bolt-on Falling Object Guards (FOGS) capability
- Bottle holder
- Bottom mounted intermittent (four speeds) wiping system that covers the upper and lower windshield glass
- Cameras
- Rear mounted wide angle camera (integrated into the counterweight)
- Right side wide angle camera, mounted on the cooling hood
- Both cameras are displayed side by side on a dedicated large color monitor
- Coat hook
- Cruise Control System
- Fastened seat belt warning signal
- Floor mat, washable, with storage compartment
- FM Radio with CD player, speakers and USB port
- · Fully adjustable suspension seat

- Instrument panel, full graphic and color display
  - Information and warning messages in local language
  - Gauges for fuel level, engine coolant, Diesel Exhaust Fluid (DEF) and hydraulic oil temperature
  - Filters/fluids change intervals
  - Indicators for headlights, turning signal, low fuel, engine dial setting
    Clock with 10-day backup battery
- Interior LED lighting with door switch
- Joystick pilot operated with one proportional slider
- · Laminated upper front windshield
- Left side console, tiltable, with lock out for all controls
- Literature holder in right hand side panel
- Mobile phone holder
- Parking brake
- Pin-code, engine start prevention
- Power supply, 12V-10A
- Rain protector\*
- Rear window (tempered glass)/ emergency exit, with hammer
- Retractable seat belt, integrated into the seat
- Safety lever, integrated into the left console
- Skylight, laminated glass
- Sealed cab with positive filtered ventilation
- Sliding door windows
- Steering column, adjustable height and angle
- Storage area suitable for a lunch box
- · Sunshade for windshield and skylight

#### UNDERCARRIAGE

- All wheel drive
- Automatic brake/axle lock
- Creeper speed
- · Electronic swing and travel lock
- Heavy-duty axles, advanced disc brake system and travel motor, adjustable braking force
- Oscillating front axle, lockable, with remote greasing point
- Steps with box in undercarriage (left and right)
- Two-piece drive shaft, with 1,000 hours greasing intervals
- Two speed hydrostatic transmission
- Spacer rings for tires

#### **OTHER EQUIPMENT**

- Auto-lube, centralized greasing (implement and swing gear)
- Automatic swing brake
- Counterweight, 3400 kg
- Engine emergency shutoff switch
- Mirrors, wide angle, frame and cab
- Product Link
- S•O•S<sup>SM</sup> sampling valves for engine oil, hydraulic oil and coolant
- Bucket linkage for digging sticks
- \*Not compatible with the Falling Objects Guards

#### **Optional Equipment**

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

#### **AUXILIARY CONTROLS AND LINES**

- Basic control circuits:
  - -Second high pressure
    - Additional two-way, high pressure circuit, for tools requiring a second high or medium pressure function
- Grapple open/close controllable via bucket control on right joystick, can be selected in the monitor
- SmartBoom

#### HYDRAULICS

• Cat BIO HYDO Advanced HEES™ biodegradable hydraulic oil

#### FRONT LINKAGE

- Booms
  - -One-piece boom, 5050 mm
  - -VA boom (two piece), 5200 mm
  - -Offset boom, 5200 mm
- Sticks
  - -2100, 2400, 2600 mm
  - -3100 Industrial Stick (without autolube)

#### ELECTRICAL

- Adjustable travel alarm
- Rotating beacon on cab

#### **OPERATOR STATION**

- Advanced joysticks with two proportional sliders
- · Joystick steering
- Seat, adjustable high-back, with vertical and horizontal air-suspension and head rest
  - Comfort, automatic weight adjustment, mechanical lumbar support, heated
  - Deluxe seat adds automatic height and weight adjustment, pneumatic lumbar support, premium fabric, heated and ventilated
- Windshield
  - One-piece impact resistant, laminated windshield and skylight (EN356 P5A standards, 10 mm)
  - -70/30 split, openable
- Mirrors electrically adjustable and heated, frame and cab
- High pressure auxiliary pedal
- Joystick pattern, changeable
- Falling Objects Guards (top and front)

#### UNDERCARRIAGE

- Rear blade (parallel)
- Rear blade, wide (parallel)
- Rear blade (parallel), with trailer-ready package
- Front blade (parallel)/rear outriggers
- Front blade (parallel)/rear outriggers, with trailer-ready package
- Front outriggers/rear blade (parallel)
- Front outriggers/rear blade, wide (parallel)
- Front and rear outriggers
- Travel restraint, for roading with a clamshell

#### **OTHER EQUIPMENT**

- Cat Machine Security System (MSS)
- Cooling protection package for dusty applications (includes fine mesh for enhanced radiator protection and engine air precleaner)
- Counterweight, 3900 kg
- · Fenders, front and rear
- Ride Control
- Tires (see pg. 22)
- Attachments (see pg. 25-30)
- Tilt-Rotator-Ready Package

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com** 

© 2016 Caterpillar All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, SAFETY.CAT.COM, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

VisionLink is a trademark of Trimble Navigation Limited, registered in the United States and in other countries.

AEHQ7898 (Europe, Israel)

