

# M314F

## Wheeled Excavator



### Engine

Engine Model	Cat® C4.4 ACERT™
Emissions	EU Stage IV
Net Power (maximum)	
ISO 9249 at 2,000 rpm	105 kW (141 hp)
ISO 9249 at 2,000 rpm (metric)	143 hp (PS)
ISO 14396 at 2,000 rpm (gross)	110 kW (148 hp)

### Weights

Operating Weight with Attachment	14 620 kg-17 610 kg
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### Bucket Specifications

Bucket Capacities	0.2 m <sup>3</sup> -1 m <sup>3</sup>
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### Working Ranges

Maximum Reach at Ground Level	9080 mm
Maximum Digging Depth	5790 mm

### Drive

Maximum Travel Speed	37 km/h
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## M314F 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 optimized 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.*

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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 – Easier Than Ever.***



# Sustainability

## Generations Ahead in Every Way

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

The engine meets Stage IV emission standards, is powerful and efficient, with an optimized fuel consumption and no impact on your productivity. This means less resource consumption and fewer CO<sub>2</sub> emissions.

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

- The new Eco Mode, Auto Engine Speed Control and Engine Idle Shutdown help further reduce your overall fuel consumption.
- Product Link™ 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 M314F has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 10 ppm of sulfur or less or up to B20 biodiesel fuel blended with ULSD.
- Cat BIO HYDO™ Advanced HEES™ 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 C4.4 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
- **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 up to B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

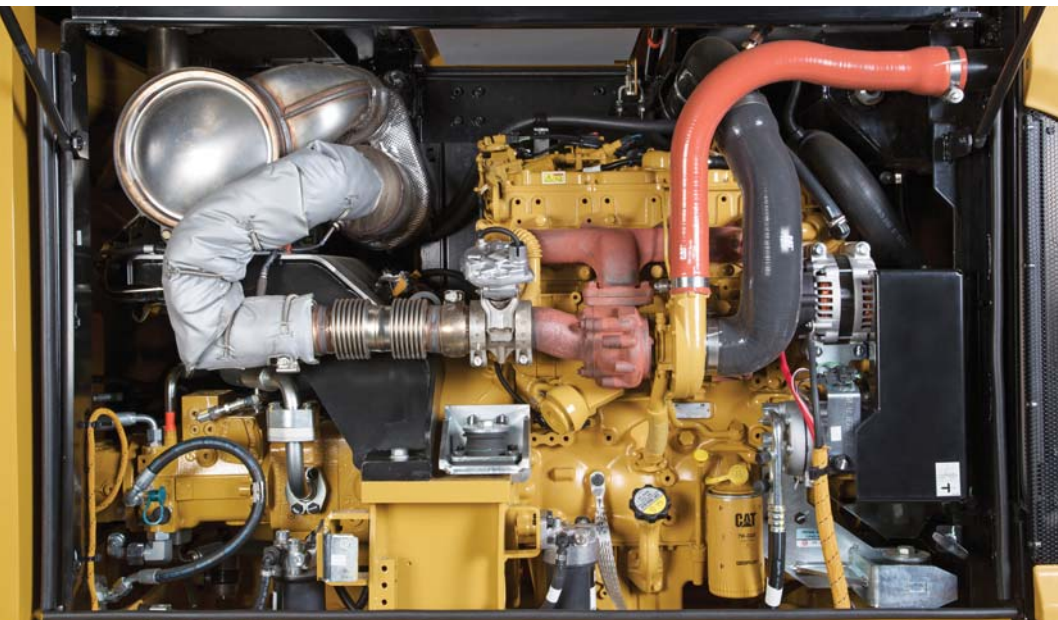
### **Proven Technology**

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.
- **NEW Engine Idle Shutdown** (when activated): turns the engine off when it's been idling for more than a pre-set amount of time.
- **NEW Cooling System:** variable speed and on-demand fan optimizing consumption.
- **NEW enhanced Eco Mode:** reduces engine speed while delivering the same power.
- **Automatic shift to Travel Mode** when you start riding: optimizes driveline performance while preserving fuel.



# 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. The lunch box provides sufficient room to store a hard hat. Several other areas include drink, phone, or key holders.

## 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 air cooled 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
- Joystick controls, buttons and thumb wheels
- Automatic air conditioning

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

Increased cab pressure, preventing from dust entry, combined with the new cab design contributes to reducing sound. Add in new hydro mounts to fix the cab on the frame and you have a cab that's as quiet as any of today's pickup trucks.

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

- Standard LED working lights and halogen front roading lights
- LED dome light
- All glass areas have been drastically increased
- Choice of 70/30 front windshield or one-piece laminated windshield
- New wide angle mirrors including a lower mirror for better visibility to the ground
- Parallel intermittent (four speeds) wipers covering the whole windshield

### **Standard Rear and Side Wide Angle Cameras**

Cameras let you see what's going on around. The image from the side camera is displayed on an additional wide color screen, offering the full view from the front to the rear of the machine. The rear camera is integrated into the counterweight for enhanced protection.

### **Large Color 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 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.

## Easier Than Ever

Work like no other with our wheeled excavators. The F Series generation is made to help you take on the wide variety of the challenges you face every day, more easily and with more pleasure, to keep you on the road to your success.

## Cruise Control

Focus on the Road, Not on Your Foot

### Cruise Control

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.*





# Smart Technologies

Press Go and Relax

## Swing and Auto Travel Lock: As Fast, As Safe

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.

*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.*

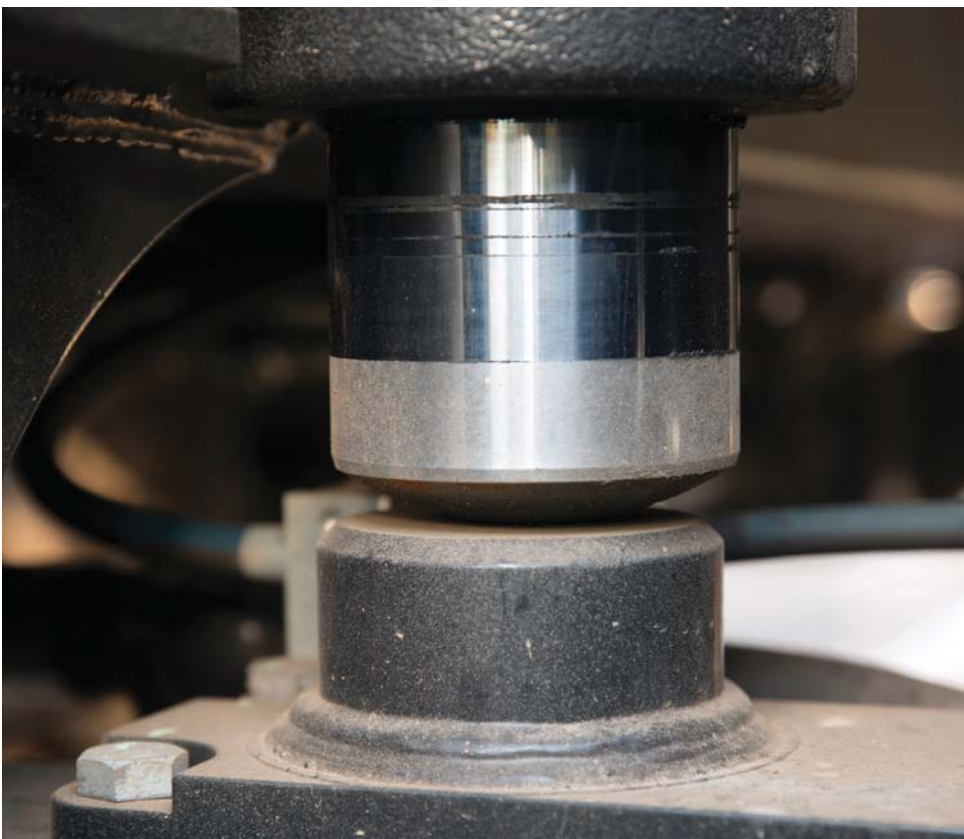


## Dig and Go Auto Axle Lock

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

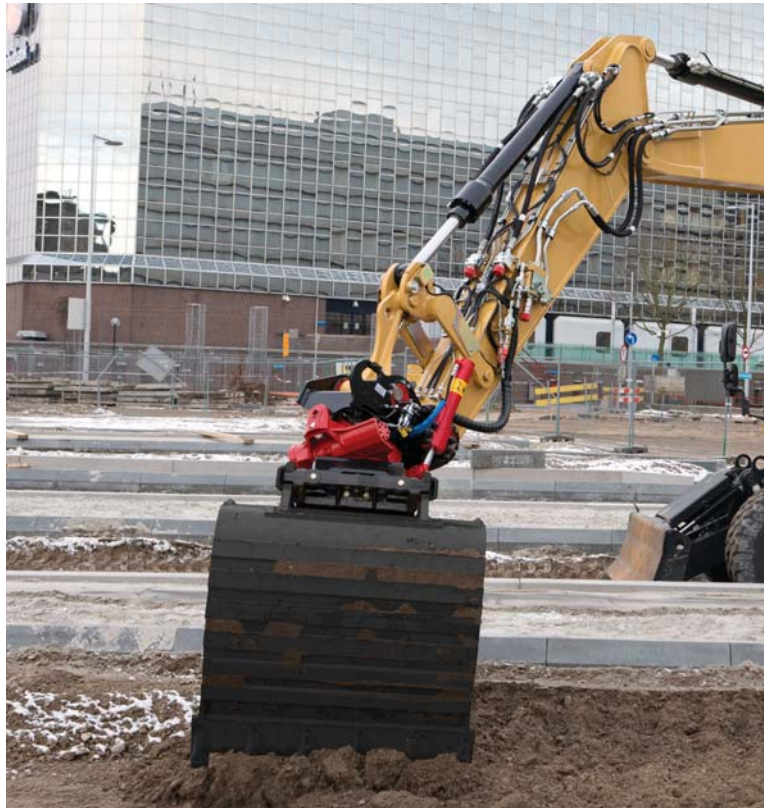
- **Simple Design:** The new hydraulic valve compartment and routings offer a simple and clean design to help ensure durability. Everything is reachable from ground level.
- **Smart Main Hydraulics:** The system allows reducing the load on the engine when not needed, which translates into lower fuel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

## Control Like No Other

- **Load Sensing Hydraulics** – Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the load sensing hydraulic system that's designed to provide fast cycle times, great lift capacity and high bucket and stick forces to maximize your efficiency in any job.
- **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 pressure function (for tilting buckets or rotating tools), high pressure lines (for tilting/rotating attachments requiring a third auxiliary hydraulic function), hydraulic quick coupler circuit: they all come standard, which allows you to switch from one attachment to another, without the need to add lines and hydraulic circuits.



# Undercarriage

## Strength and Versatility at 37 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.

### 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.

### New Blade Design

- Optimized design to provide rigidity, stability and ease of maintenance.
- 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 – 2000 mm** for maximum breakout force and lifting capability
- **Medium stick – 2300 mm** for greater crowd force and lift capacity
- **Long stick – 2600 mm** for greater depth and reach
- **Industrial stick – 2900 mm:** A drop nose stick for 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

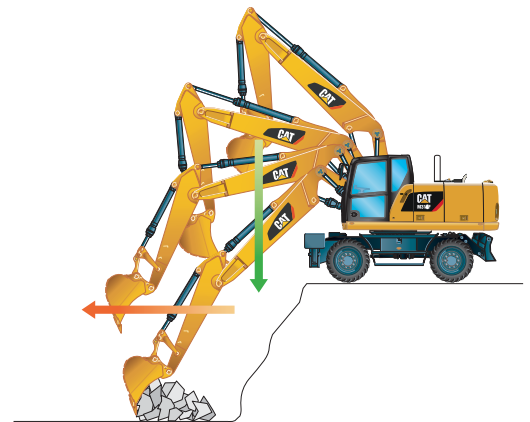
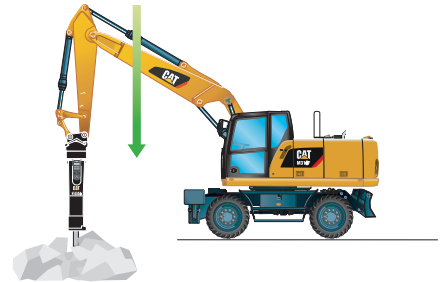
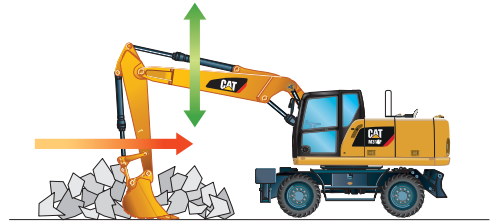
Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows more focus on stick and bucket, while the boom freely goes up and down without using pump flow.

### 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.

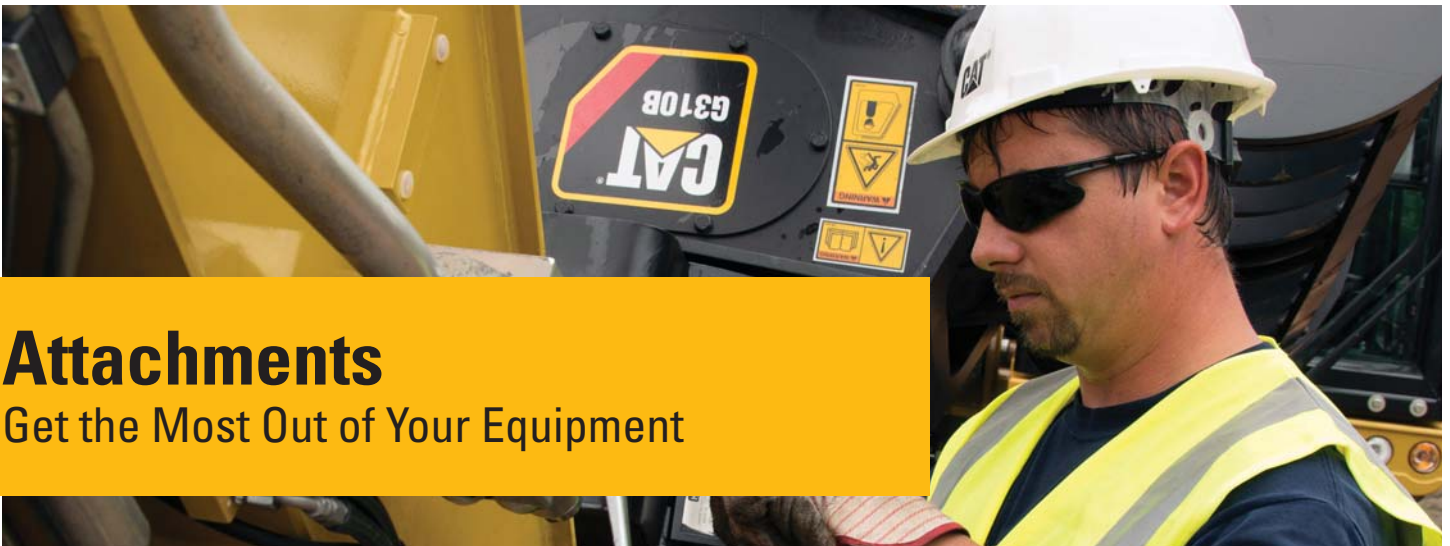


## Ride Control

### 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.





# Attachments

Get the Most Out of Your Equipment



**Save Time with Every Attachment Change**  
Perform hydraulic attachment changes in seconds ... The new Auto-Connect hydraulic coupler automates work 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 M314F 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 new 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. 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 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 Options

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 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

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



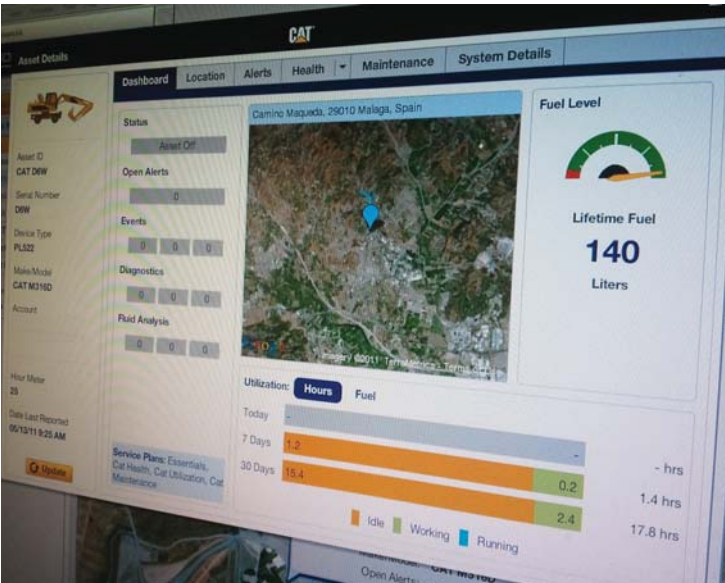
PRODUCTIVITY

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



SAFETY

**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.

# CAT® CONNECT



EQUIPMENT MANAGEMENT



PRODUCTIVITY



SAFETY



SUSTAINABILITY

# Safety

Your Safety Is NOT Optional

## Embedded Features

Smart devices are embedded to offer as much safety as possible for your operators and help enforce safe behavior:

- Safety seat belt and warning indicators (monitor)
- Automatic swing lock
- Automatic brake and axle lock
- Safety Lever, preventing exit when the implements are not locked out
- Emergency shut off switch and battery disconnect switch
- Travel alarm
- Lowering check valves

## Safe and Quiet Cab

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

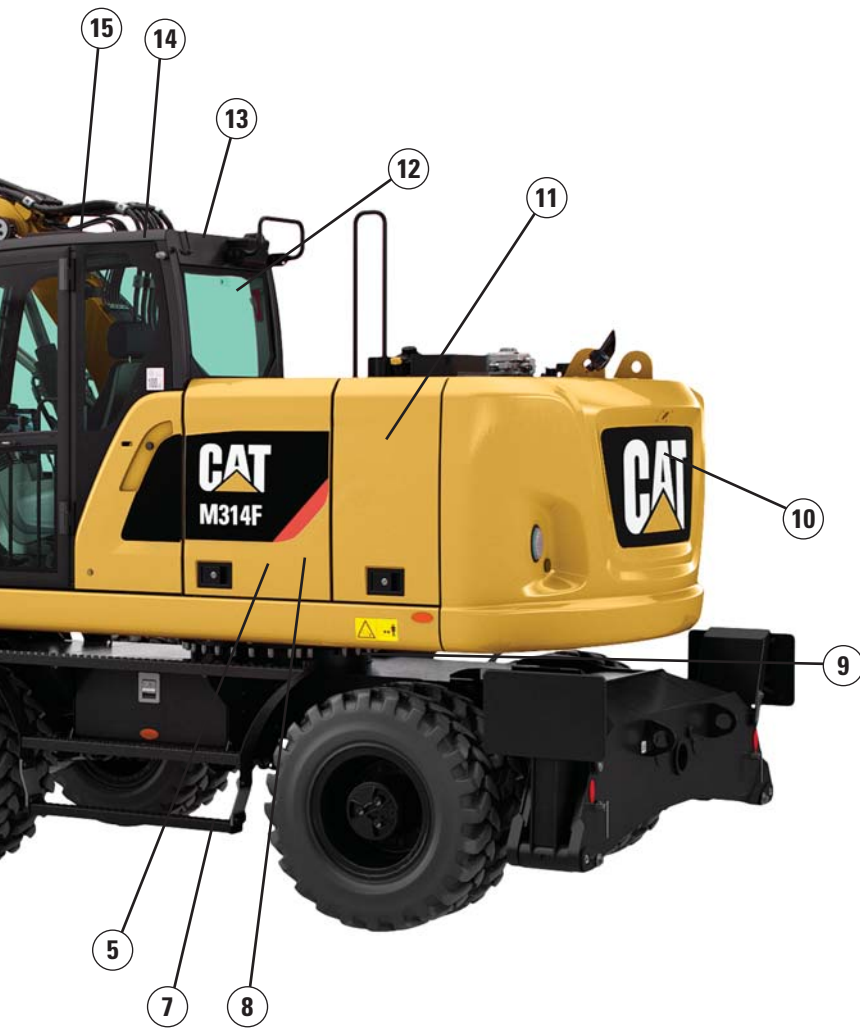


## Cab Ingress

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
- New, convenient door handrail
- Safety lever built into the tiltable console to make sure the way in and out is free of obstacle





- 1) Laminated windshield and skylight window. One-piece 10 mm windshield, 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

### 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

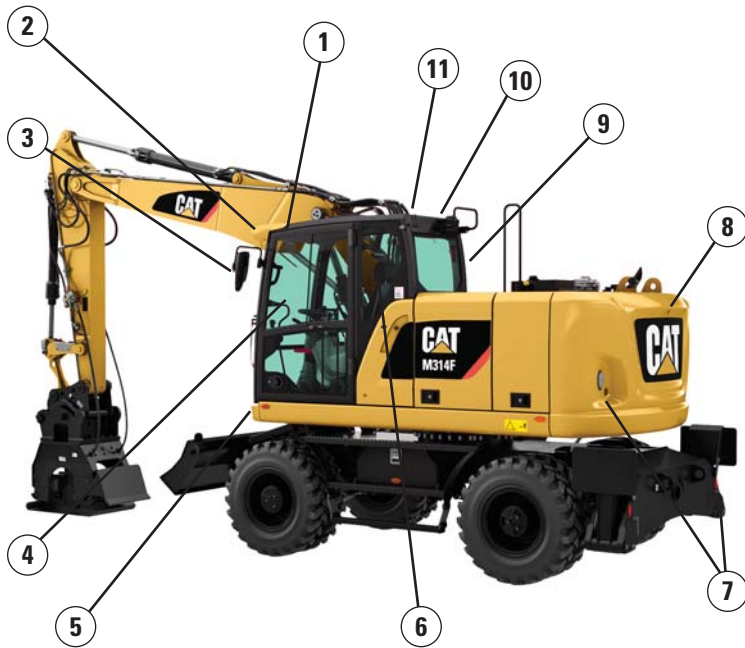


### Great Views

- 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 through the monitor. Camera is integrated into the counterweight.
- Standard sideview camera, to check nothing is hidden to you from the front right hand side to the rear of the machine
- 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 area
- 2) Improved lighting with standard LED lights for all working lights
- 3) Optional heated mirrors
- 4) Great left hand side visibility with the new all glass door
- 5) Halogen front roading lights
- 6) Wide rear window
- 7) Reflecting red lights on rear and blade/outriggers
- 8) Standard wide rearview camera
- 9) Standard side camera and dedicated monitor
- 10) Large right hand side window
- 11) 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.



# M314F Wheeled Excavator Specifications

## Engine

Engine Model	Cat C4.4 ACERT <sup>(1)</sup>
Ratings	2,000 rpm
Engine Gross Power (maximum)	
ISO 14396	110 kW (148 hp)
ISO 14396 (metric)	150 hp (PS)
Net Power (Rated) <sup>(2)</sup>	
ISO 9249/SAE J1349	105 kW (141 hp)
ISO 9249/SAE J1349 (metric)	143 hp (PS)
80/1269/EEC	105 kW (141 hp)
Net Power (maximum)	
ISO 9249/SAE J1349	105 kW (141 hp)
ISO 9249/SAE J1349 (metric)	143 hp (PS)
80/1269/EEC	105 kW (141 hp)
Bore	105 mm
Stroke	127 mm
Displacement	4.4 L
Maximum Torque at 1,400 rpm	560 N·m
Number of Cylinders	4

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

<sup>(2)</sup> Rated speed 2,000 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	9 km/h
2nd Gear	37 km/h
Creep Speed	
1st Gear	3 km/h
2nd Gear	12 km/h
Drawbar Pull	73 kN
Maximum Gradeability (15 000 kg)	52.5%

## Service Refill Capacities

Fuel Tank (total capacity)	280 L
Diesel Exhaust Fluid Tank	19 L
Cooling System	38 L
Engine Crankcase	8 L
Rear Axle Housing (differential)	11.2 L
Front Steering Axle (differential)	9 L
Final Drive	2.4 L
Powershift Transmission	2.5 L

## Swing Mechanism

Swing Speed	9.8 rpm
Swing Torque	33 kN·m

## Undercarriage

Ground Clearance	370 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	±8.5°
Minimum Turning Radius	
Outside of Tire	6200 mm
End of One-Piece Boom	8100 mm
End of VA Boom	6700 mm
End of Offset Boom	6700 mm

## Weights

Operating Weights*	14 360 kg-15 950 kg
Weights	
VA Boom	
Rear Dozer Only	14 710 kg
Rear Dozer, Front Outriggers	15 670 kg
Front and Rear Outriggers	15 950 kg
One-Piece Boom	
Front Dozer, Rear Outriggers	15 320 kg
Front and Rear Outriggers	15 600 kg
Offset Boom	
Rear Dozer, Front Outriggers	16 230 kg
Front and Rear Outriggers	16 510 kg
Sticks**	
Short, 2000 mm	610 kg
Medium, 2300 mm	630 kg
Long, 2600 mm	675 kg
Industrial-Drop Nose, 2900 mm	390 kg
Counterweights	
Standard	2800 kg
Optional	3300 kg

\*Operating weight includes medium stick, 2800 kg counterweight, full fuel tank, operator, quick coupler (210 kg) bucket (490 kg) and dual pneumatic tires. Weight varies depending on configuration.

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

# M314F Wheeled Excavator Specifications

## Hydraulic System

Tank Capacity	89 L
System	220 L
Maximum Pressure	
Implement Circuit	
Normal	350 bar
Heavy Lift	375 bar
Travel Circuit	350 bar
Auxiliary Circuit	
High Pressure	350 bar
Medium Pressure	185 bar
Swing Mechanism	350 bar
Maximum Flow	
Implement/Travel Circuit	180 L/min
Auxiliary Circuit	
High Pressure	180 L/min
Medium Pressure	50 L/min
Swing Mechanism	80 L/min

## Tires

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

## Dozer Blade

Blade Type	Radial
Width	2540 mm
Blade Roll-Over Height	540 mm
Blade Total Height	580 mm
Maximum Lowering Depth from Ground	120 mm
Maximum Raising Height above Ground	470 mm

## Emissions and Safety

Engine Emissions	Stage IV
Fluids (optional)	
Cat Bio HYDO 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
Diesel Exhaust Fluid	Must meet ISO 22241
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

## Standards

ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS criteria ISO 12117-2:2008
Operator Protective Structure: top/front guards	FOPS (Falling Object Protective Structure) meets FOPS criteria ISO 10262:1998 and SAE J1356:2008
Cab/Sound Levels	Meets appropriate standards as listed below

## Sound Performance

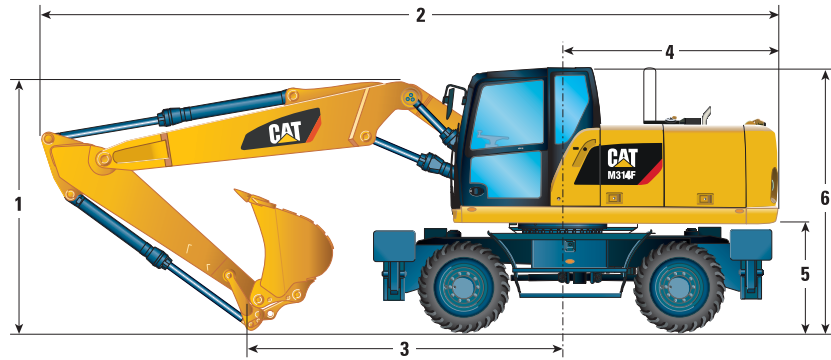
Operator Sound	
2000/14/EC	71 dB(A)
Spectator Sound	
2000/14/EC	101 dB(A)

- 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).

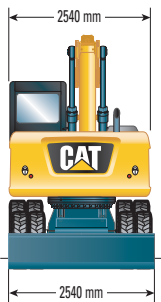
# M314F Wheeled Excavator Specifications

## Dimensions

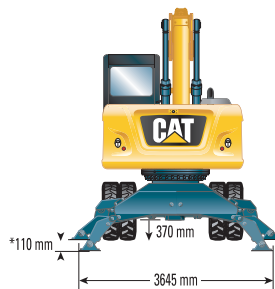
All dimensions are approximate. Values are with 10.00-20 pneumatic tires.



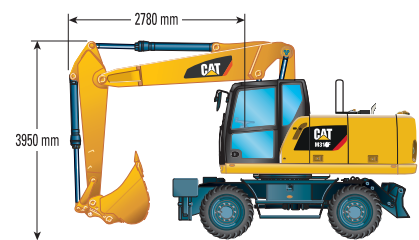
Stick Length	mm	VA Boom				One-Piece Boom				Offset Boom	
		2000	2300	2600	2900	2000	2300	2600	2900	2000	2300
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm	3280	3280	3280	3280	3280	3280	3330	3280	3280	3280
2 Shipping Length	mm	8460	8455	8445	8445	8250	8250	8185	8275	8455	8455
3 Support Point	mm	3820	3465	3315	3580	3485	3115	3450	3155	3810	3455
4 Tail Swing Radius	mm		2090				2090			2090	
5 Counterweight Clearance	mm		1230				1230			1230	
6 Cab Height – No Falling Object Guard, Handrails Lowered	mm		3150				3150			3150	
With Handrails not Lowered	mm		3210				3210			3210	
With Falling Object Guard	mm		3280				3280			3280	
7 Overall Machine Width											
Width with Outriggers on Ground	mm		3645				3645			3645	
Width with Outriggers Up	mm		2545				2545			2545	
Width with Blade	mm		2540				2540			2540	
8 Maximum Outriggers Depth	mm		110				110			110	



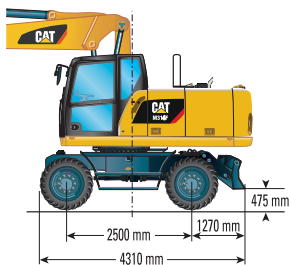
\*Maximum tire clearance with outrigger fully down



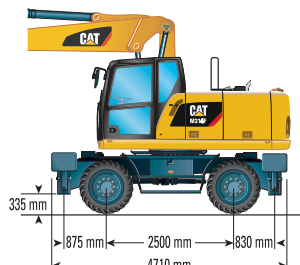
Roading position with 2300 mm stick



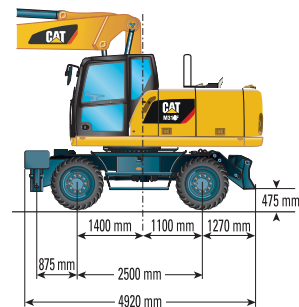
Undercarriage with dozer only



Undercarriage with 2 sets of outriggers

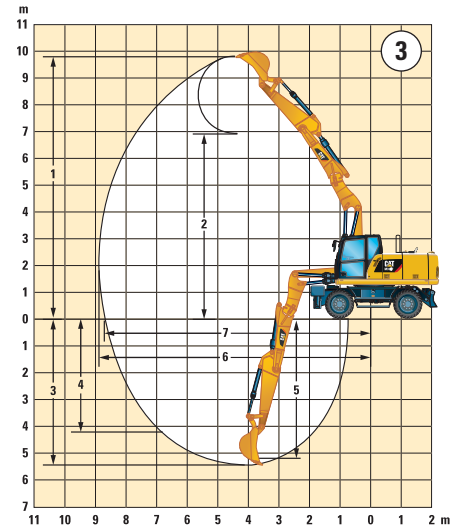
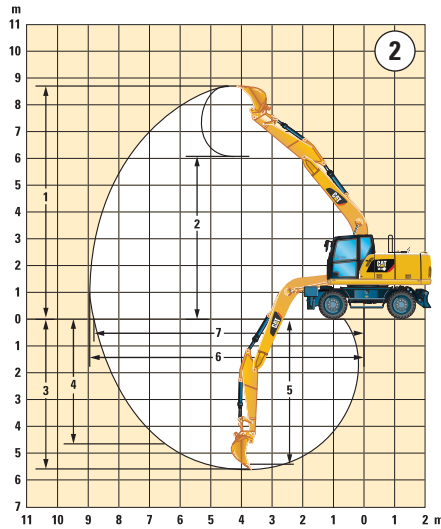
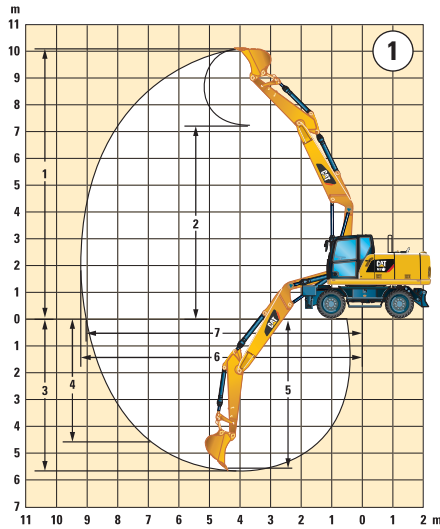


Undercarriage with 1 set of outriggers and dozer



# M314F Wheeled Excavator Specifications

## Working Ranges



		①				②				③	
		VA Boom				One-Piece Boom				Offset Boom	
Stick Length	mm	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300
1 Digging Height	mm	9720	9870	10 110	8500	8690	8700	8870	7140	9710	9850
2 Dump Height	mm	6850	7000	7240		5860	5920	6090		6840	6980
3 Digging Depth	mm	5200	5490	5790	4670	5030	5330	5630	4500	5200	5490
4 Vertical Wall Digging Depth	mm	4140	4310	4610		4270	4430	4740		4120	4280
5 Depth 2.5 m in Straight Clean-Up	mm	5090	5380	5680		4790	5120	5430		5080	5380
6 Reach	mm	8710	8960	9250	7910	8470	8700	8990	7610	8710	8950
7 Reach at Ground Level	mm	8530	8780	9080	7705	8280	8520	8810	7400	8520	8780
Bucket Forces (ISO 6015)	kN	103	103	103		103	103	103		103	103
Stick Forces (ISO 6015)	kN	76	69	64		76	69	64		76	69

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

Range values are calculated with GD Bucket, 900 mm, 0.53 m<sup>3</sup> with tips J250 and CW-20-H.4.N quick coupler with a tip radius of 1437 mm.

Breakout force values are calculated with heavy lift on (no quick coupler) and a cutting edge radius of 1111 mm.



# M314F Wheeled Excavator Specifications

## Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

Stick Length				Variable Adjustable Boom									One-Piece Boom						Offset Boom											
				2000 mm			2300 mm			2600 mm			2000 mm			2300 mm			2600 mm			2000 mm		2300 mm						
Width	Weight	Capacity (ISO)		Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized			
				<b>Pin-on Buckets</b>				With 2.8 mt Counterweight																						
General Duty (GD)	450	302	0.20																											
	600	349	0.31																											
	900	431	0.53																											
	1000	456	0.60																											
	1100	490	0.68																											
	1200	519	0.76																											
Heavy Duty (HD)	1200	528	0.76																											
				With 3.3 mt Counterweight																										
General Duty (GD)	450	302	0.20																											
	600	349	0.31																											
	900	431	0.53																											
	1000	456	0.60																											
	1100	490	0.68																											
	1200	519	0.76																											
Heavy Duty (HD)	1200	528	0.76																											
<b>Pin Grabber Coupler</b>				With 2.8 mt Counterweight																										
General Duty (GD)	450	302	0.20																											
	600	349	0.31																											
	900	431	0.53																											
	1000	456	0.60																											
	1100	490	0.68																											
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	900	431	0.53																											
	1000	456	0.60																											
	1100	490	0.68																											
	1200	519	0.76																											

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.  
Capacity based on ISO 7451.  
Bucket weight with Long tips.

- Maximum material density 2100 kg/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>
- Not recommended

Caterpillar recommends using appropriate attachments to maximize the value customers receive from our products. Use of attachments, 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 an attachment resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

# M314F Wheeled Excavator Specifications

## Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

Stick Length				Variable Adjustable Boom									One-Piece Boom						Offset Boom											
				2000 mm			2300 mm			2600 mm			2000 mm			2300 mm			2600 mm			2000 mm		2300 mm						
Capacity (ISO)	Width	Weight	m³	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized			
				<b>CW20/CW20s Buckets</b>				With 2.8 mt Counterweight																						
Ditch Cleaning (DC)	1800	476	0.68																											
	2000	531	1.00																											
Ditch Cleaning Tilt (DCT)	1800	707	0.61																											
General Duty (GD)	450	300	0.20																											
	500	309	0.24																											
	600	328	0.31																											
	750	374	0.41																											
	900	423	0.53																											
	1000	452	0.60																											
	1100	482	0.68																											
Heavy Duty (HD)	500	319	0.24																											
	1200	511	0.76																											
				With 3.3 mt Counterweight																										
Ditch Cleaning (DC)	1800	476	0.68																											
	2000	531	1.00																											
Ditch Cleaning Tilt (DCT)	1800	707	0.61																											
General Duty (GD)	450	300	0.20																											
	500	309	0.24																											
	600	328	0.31																											
	750	374	0.41																											
	900	423	0.53																											
	1000	452	0.60																											
	1100	482	0.68																											
Heavy Duty (HD)	500	319	0.24																											
	1200	511	0.76																											

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

Capacity based on ISO 7451.

Bucket weight with Long tips.

- Maximum material density 2100 kg/m³
- Maximum material density 1800 kg/m³
- Maximum material density 1500 kg/m³
- Maximum material density 1200 kg/m³
- Not recommended

Caterpillar recommends using appropriate attachments to maximize the value customers receive from our products. Use of attachments, 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 an attachment resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.



# M314F Wheeled Excavator Specifications

## Attachment Offering Guide\*

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

Boom Type		Variable Adjustable Boom																			
Undercarriage	Counterweight	2.8 mt								3.3 mt											
		(1)		(2)		(3)		(1)		(2)		(3)									
Stick Length		2000 mm	2300 mm	2600 mm	2900 mm	2000 mm	2300 mm	2600 mm	2900 mm	2000 mm	2300 mm	2600 mm	2900 mm	2000 mm	2300 mm	2600 mm	2900 mm	2000 mm	2300 mm	2600 mm	2900 mm
<b>Attachments</b>																					
Hydraulic Hammer	H110Es	Green	Blue	Red	Black	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Blue	Red	Black	Grey	Grey	Grey	Grey
	H115Es	Orange	Orange	Orange	Orange	Orange	Green	Green	Grey	Grey	Grey	Grey	Grey	Orange	Green	Blue	Black	Orange	Green	Green	Orange
Demolition and Sorting Grapple (D-Demolition shells, R-Recycling shells)	G310 GC	Green	Blue	Red	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Blue	Red	Grey	Grey	Grey	Grey	Grey
	G310 GC fixed CAN	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
	G310B-D/R	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Black	Orange	Orange	Orange	Orange	Orange	Orange
	G310B-D/R fixed CAN	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
	G313 GC	Green	Blue	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Blue	Orange	Grey	Grey	Grey	Grey	Grey
G313 GC fixed CAN	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	
Scrap and Demolition Shear	S320B	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Compactor Plate	CVP75	Grey	Green	Blue	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
<b>Material Handling Grapples</b>																					
Orange Peel Grapple (5 Tines)	GSM22 – 250 L	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	GSM22 – 300 L	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	GSM22 – 400 L	1.8	1.2	1.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.8	1.8	1.8	1.8	1.8
	GSM22 – 500 L	1.2	1.2		1.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.8	1.8	1.8
	GSM25 – 400 L								1.8					1.8	1.2		1.2	1.8	1.8	1.8	1.8
	GSM25 – 500 L								1.8					1.8				1.8	1.8	1.8	1.8
	GSM25 – 600 L								1.8					1.8				1.8	1.8	1.2	1.8
	GSM25 – 800 L								1.2					1.8				1.2	1.2	1.2	1.2
Clamshell Grapple (Digging)	GG25 – 170 L	1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8	1.8	1.8	1.8		
	GG25 – 220 L	1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8	1.8	1.8	1.8		
	GG25 – 280 L	1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8	1.8	1.8	1.8		
	GG25 – 340 L	1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8	1.8	1.8	1.8		
	GG25 – 400 L	1.8	1.8			1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8	1.8	1.8	1.8	1.8		
	GG25 – 460 L	1.8				1.8	1.8	1.8		1.8	1.8	1.8		1.8	1.8		1.8	1.8	1.8		
	GG25 – 520 L					1.8	1.8	1.8		1.8	1.8	1.8		1.8			1.8	1.8	1.8		
	GG25 – 580 L					1.8	1.8	1.8		1.8	1.8	1.8					1.8	1.8	1.8		
Material Density		1.2 [T/m <sup>3</sup> ] (less dense material)										1.8 [T/m <sup>3</sup> ] (standard material)									
Pin Grabber Coupler	Cat PG	These couplers are available for the M314F (Straight/linkage stick).																			
Dedicated Quick Coupler	CW-20																				
	CW-20s																				
	CWAC-40 (autoconnect)																				

- (1) Dozer lowered
- (2) 2 sets outriggers lowered
- (3) Dozer and outrigger lowered

- Attachment is a match
- Pin-in, Cat dedicated or Pin Grabber coupler
- Pin-in or Cat Pin Grabber coupler
- Pin-in or Cat dedicated coupler
- Pin-in only
- Over the front only
- Boom mount

- Over the front only with Cat dedicated coupler (match Pin-in and CW)
- Over the front only with Cat Pin Grabber coupler (match Pin-in, CW and Cat PG)
- Over the front only with Cat Autoconnect (match Pin-in, CW, Cat PG and CWAC)
- Not recommended

\*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 attachment match.

Note: Demolition and Sorting Grapple: fixed CAN – fixed hingeplates for CW quick coupler usage.

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

# M314F Wheeled Excavator Specifications

## Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (3300 kg), heavy lift on.

Medium Stick 2300 mm	T	Load at maximum reach (stick nose/bucket pin)			Load over front			Load over rear			Load over side			Load point height			
		3000 mm			4500 mm			6000 mm			7500 mm			mm			
		Stick	Boom	Attachment	Stick	Boom	Attachment	Stick	Boom	Attachment	Stick	Boom	Attachment	Stick	Boom	Attachment	mm
7500 mm	Lower rear dozer up				*3950	*3950	3700							*3450	*3450	*3450	4640
	Lower rear dozer down				*3950	*3950	*3950							*3450	*3450	*3450	
	Lower f. dozer & r. stabilizer down				*3950	*3950	*3950							*3450	*3450	*3450	
	Lower 2 sets of stabilizers down				*3950	*3950	*3950							*3450	*3450	*3450	
6000 mm	Lower rear dozer up				*4550	4150	3750	*3450	2550	2300				*2900	2450	2200	6130
	Lower rear dozer down				*4550	*4550	4200	*3450	*3450	2600				*2900	*2900	2500	
	Lower f. dozer & r. stabilizer down				*4550	*4550	*4550	*3450	*3450	*3450				*2900	*2900	*2900	
	Lower 2 sets of stabilizers down				*4550	*4550	*4550	*3450	*3450	*3450				*2900	*2900	*2900	
4500 mm	Lower rear dozer up				*5150	3950	3600	3650	2500	2300				*2700	1950	1750	6980
	Lower rear dozer down				*5150	*5150	4050	3650	*4300	2550				*2700	*2700	2000	
	Lower f. dozer & r. stabilizer down				*5150	*5150	*5150	*4300	*4300	3950				*2700	*2700	*2700	
	Lower 2 sets of stabilizers down				*5150	*5150	*5150	*4300	*4300	*4300				*2700	*2700	*2700	
3000 mm	Lower rear dozer up				5500	3700	3300	3550	2400	2200				2550	1700	1550	7420
	Lower rear dozer down				5450	*5950	3750	3500	*4550	2450				2550	*2700	1750	
	Lower f. dozer & r. stabilizer down				*5950	*5950	5950	*4550	*4550	3800				*2700	*2700	*2700	
	Lower 2 sets of stabilizers down				*5950	*5950	*5950	*4550	*4550	*4550				*2700	*2700	*2700	
1500 mm	Lower rear dozer up				5200	3400	3050	3400	2300	2050	2450	1650	1500	2450	1650	1500	7520
	Lower rear dozer down				5150	*6550	3500	3400	*4800	2350	2450	*3050	1700	2450	*2800	1650	
	Lower f. dozer & r. stabilizer down				*6550	*6550	5650	*4800	*4800	3700	*3050	*3050	2650	*2800	*2800	2650	
	Lower 2 sets of stabilizers down				*6550	*6550	*6550	*4800	*4800	4450	*3050	*3050	*3050	*2800	*2800	*2800	
0 mm	Lower rear dozer up				5050	3250	2900	3300	2200	2000				2500	1650	1500	7320
	Lower rear dozer down				5000	*6500	3350	3300	*4700	2250				2500	*3100	1700	
	Lower f. dozer & r. stabilizer down				*6500	*6500	5500	*4700	*4700	3600				*3100	*3100	2700	
	Lower 2 sets of stabilizers down				*6500	*6500	*6500	*4700	*4700	4350				*3100	*3100	*3100	
-1500 mm	Lower rear dozer up	*6750	6050	5300	5000	3250	2900	3300	2200	1950				2800	1850	1700	6760
	Lower rear dozer down	*6750	*6750	6150	5000	*5700	3300	3300	*4100	2250				2800	*3200	1900	
	Lower f. dozer & r. stabilizer down	*6750	*6750	*6750	*5700	*5700	5450	*4100	*4100	3550				*3200	*3200	3050	
	Lower 2 sets of stabilizers down	*6750	*6750	*6750	*5700	*5700	*5700	*4100	*4100	*4100				*3200	*3200	*3200	
-3000 mm	Lower rear dozer up				*4000	3300	2950										
	Lower rear dozer down				*4000	*4000	3400										
	Lower f. dozer & r. stabilizer down				*4000	*4000	*4000										
	Lower 2 sets of stabilizers down				*4000	*4000	*4000										

\*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.

# M314F Wheeled Excavator Specifications

## Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (3300 kg), heavy lift on.

Long Stick 2600 mm	T	Load at maximum reach (stick nose/bucket pin)			Load over front			Load over rear			Load over side			Load point height			mm
		3000 mm			4500 mm			6000 mm			7500 mm			mm			
		Front	Rear	Side	Front	Rear	Side	Front	Rear	Side	Front	Rear	Side	Front	Rear	Side	
7500 mm	Undercarriage configuration																
	Lower rear dozer up				*3950	*3950	3750										
	Lower rear dozer down				*3950	*3950	*3950										
	Lower f. dozer & r. stabilizer down				*3950	*3950	*3950										
6000 mm	Lower rear dozer up				*3950	*3950	3800	*3600	2550	2350							
	Lower rear dozer down				*3950	*3950	*3950	*3600	*3600	2600							
	Lower f. dozer & r. stabilizer down				*3950	*3950	*3950	*3600	*3600	*3600							
	Lower 2 sets of stabilizers down				*3950	*3950	*3950	*3600	*3600	*3600							
4500 mm	Lower rear dozer up				*4450	4000	3650	3650	2500	2300							
	Lower rear dozer down				*4450	*4450	4050	3650	*4100	2550							
	Lower f. dozer & r. stabilizer down				*4450	*4450	4450	*4100	*4100	3950							
	Lower 2 sets of stabilizers down				*4450	*4450	*4450	*4100	*4100	*4100							
3000 mm	Lower rear dozer up				5500	3700	3350	3550	2400	2200	2500	1650	1500	*2300	1600	1450	
	Lower rear dozer down				5500	*5750	3750	3500	*4450	2450	2500	*3300	1700	*2300	*2300	1650	
	Lower f. dozer & r. stabilizer down				*5750	*5750	*5750	*4450	*4450	3800	*3300	*3300	2700	*2300	*2300	*2300	
	Lower 2 sets of stabilizers down				*5750	*5750	*5750	*4450	*4450	*4450	*3300	*3300	3250	*2300	*2300	*2300	
1500 mm	Lower rear dozer up				5200	3400	3050	3400	2250	2050	2450	1600	1450	2300	1500	1350	
	Lower rear dozer down				5150	*6450	3500	3400	*4700	2300	2450	*3700	1650	2300	*2400	1550	
	Lower f. dozer & r. stabilizer down				*6450	*6450	5650	*4700	*4700	3650	*3700	*3700	2650	*2400	*2400	*2400	
	Lower 2 sets of stabilizers down				*6450	*6450	*6450	*4700	*4700	4450	*3700	*3700	3200	*2400	*2400	*2400	
0 mm	Lower rear dozer up				5000	3250	2900	3300	2150	1950	2400	1600	1450	2350	1550	1400	
	Lower rear dozer down				5000	*6500	3300	3300	*4700	2200	2400	*3450	1650	2350	*2650	1600	
	Lower f. dozer & r. stabilizer down				*6500	*6500	5450	*4700	*4700	3550	*3450	*3450	2600	*2650	*2650	2550	
	Lower 2 sets of stabilizers down				*6500	*6500	*6500	*4700	*4700	4350	*3450	*3450	3150	*2650	*2650	*2650	
-1500 mm	Lower rear dozer up				*6350	5950	5200	4950	3200	2850	3250	2150	1900	2600	1700	1550	
	Lower rear dozer down				*6350	*6350	6050	4950	*5850	3250	3250	*4250	2200	2600	*3100	1750	
	Lower f. dozer & r. stabilizer down				*6350	*6350	*6350	*5850	*5850	5400	*4250	*4250	3550	*3100	*3100	2800	
	Lower 2 sets of stabilizers down				*6350	*6350	*6350	*5850	*5850	*5850	*4250	*4250	*4250	*3100	*3100	*3100	
-3000 mm	Lower rear dozer up				*4400	3250	2900	*2800	2200	2000							
	Lower rear dozer down				*4400	*4400	3300	*2800	*2800	2250							
	Lower f. dozer & r. stabilizer down				*4400	*4400	*4400	*2800	*2800	*2800							
	Lower 2 sets of stabilizers down				*4400	*4400	*4400	*2800	*2800	*2800							

\*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.

# M314F Wheeled Excavator Specifications

## Lift Capacities – One-Piece Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (3300 kg), heavy lift on.

 Load at maximum reach (stick nose/bucket pin)		 Load over front		 Load over rear			 Load over side			 Load point height					
													3000 mm		4500 mm
<b>Medium Stick</b> 2300 mm		Undercarriage configuration												mm	
	6000 mm	Lower rear dozer up												*2650	*2650
Lower rear dozer down													*2650	*2650	*2650
Lower f. dozer & r. stabilizer down													*2650	*2650	*2650
Lower 2 sets of stabilizers down													*2650	*2650	*2650
4500 mm	Lower rear dozer up												*4800	4000	3650
	Lower rear dozer down												*4800	*4800	4050
	Lower f. dozer & r. stabilizer down												*4800	*4800	*4800
	Lower 2 sets of stabilizers down												*4800	*4800	*4800
3000 mm	Lower rear dozer up												5550	3750	3400
	Lower rear dozer down												5500	*5700	3800
	Lower f. dozer & r. stabilizer down												*5700	*5700	*5700
	Lower 2 sets of stabilizers down												*5700	*5700	*5700
1500 mm	Lower rear dozer up												5250	3500	3150
	Lower rear dozer down												5250	*6500	3600
	Lower f. dozer & r. stabilizer down												*6500	*6500	5700
	Lower 2 sets of stabilizers down												*6500	*6500	*6500
0 mm	Lower rear dozer up												*4500	*4500	*4500
	Lower rear dozer down												*4500	*4500	*4500
	Lower f. dozer & r. stabilizer down												*4500	*4500	*4500
	Lower 2 sets of stabilizers down												*4500	*4500	*4500
-1500 mm	Lower rear dozer up												*8600	6200	5400
	Lower rear dozer down												*8600	*8600	6250
	Lower f. dozer & r. stabilizer down												*8600	*8600	*8600
	Lower 2 sets of stabilizers down												*8600	*8600	*8600
-3000 mm	Lower rear dozer up												*6400	6300	5550
	Lower rear dozer down												*6400	*6400	*6400
	Lower f. dozer & r. stabilizer down												*6400	*6400	*6400
	Lower 2 sets of stabilizers down												*6400	*6400	*6400

\*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. 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.

# M314F Wheeled Excavator Specifications

## Lift Capacities – One-Piece Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (3300 kg), heavy lift on.

Long Stick 2600 mm	 T	Undercarriage configuration	Load at maximum reach (stick nose/bucket pin)			Load over front			Load over rear			Load over side			Load point height				
			3000 mm			4500 mm			6000 mm			7500 mm							
																		mm	
7500 mm	Lower rear dozer up														*2700	*2700	*2700	4690	
	Lower rear dozer down														*2700	*2700	*2700		
	Lower f. dozer & r. stabilizer down														*2700	*2700	*2700		
	Lower 2 sets of stabilizers down														*2700	*2700	*2700		
6000 mm	Lower rear dozer up							*2850	2550	2350					*2250	*2250	2250	6170	
	Lower rear dozer down							*2850	*2850	2600					*2250	*2250	*2250		
	Lower f. dozer & r. stabilizer down							*2850	*2850	*2850					*2250	*2250	*2250		
	Lower 2 sets of stabilizers down							*2850	*2850	*2850					*2250	*2250	*2250		
4500 mm	Lower rear dozer up							3650	2550	2350					*2150	1950	1800	7010	
	Lower rear dozer down							3650	*4000	2600					*2150	*2150	2000		
	Lower f. dozer & r. stabilizer down							*4000	*4000	3950					*2150	*2150	*2150		
	Lower 2 sets of stabilizers down							*4000	*4000	*4000					*2150	*2150	*2150		
3000 mm	Lower rear dozer up						*5450	3800	3450	3550	2450	2250			*2150	1700	1550	7450	
	Lower rear dozer down						*5450	*5450	3850	3550	*4300	2500			*2150	*2150	1750		
	Lower f. dozer & r. stabilizer down						*5450	*5450	*5450	*4300	*4300	3850			*2150	*2150	*2150		
	Lower 2 sets of stabilizers down						*5450	*5450	*5450	*4300	*4300	*4300			*2150	*2150	*2150		
1500 mm	Lower rear dozer up						5250	3500	3150	3450	2350	2100	2450	1650	1500	*2250	1650	1500	7550
	Lower rear dozer down						5250	*6350	3600	3400	*4700	2400	2450	*2600	1700	*2250	*2250	1700	
	Lower f. dozer & r. stabilizer down						*6350	*6350	5750	*4700	*4700	3700	*2600	*2600	*2600	*2250	*2250	*2250	
	Lower 2 sets of stabilizers down						*6350	*6350	*6350	*4700	*4700	4500	*2600	*2600	*2600	*2250	*2250	*2250	
0 mm	Lower rear dozer up	*4750	*4750	*4750	5100	3350	3000	3350	2250	2000					2500	1700	1550	7350	
	Lower rear dozer down	*4750	*4750	*4750	5050	*6650	3400	3300	*4850	2300					2500	*2500	1700		
	Lower f. dozer & r. stabilizer down	*4750	*4750	*4750	*6650	*6650	5550	*4850	*4850	3600					*2500	*2500	*2500		
	Lower 2 sets of stabilizers down	*4750	*4750	*4750	*6650	*6650	*6650	*4850	*4850	4400					*2500	*2500	*2500		
-1500 mm	Lower rear dozer up	*8050	6100	5350	5000	3300	2950	3300	2200	2000					2800	1850	1700	6790	
	Lower rear dozer down	*8050	*8050	6200	5000	*6250	3350	3300	*4500	2250					2800	*3050	1900		
	Lower f. dozer & r. stabilizer down	*8050	*8050	*8050	*6250	*6250	5450	*4500	*4500	3550					*3050	*3050	3000		
	Lower 2 sets of stabilizers down	*8050	*8050	*8050	*6250	*6250	*6250	*4500	*4500	4350					*3050	*3050	*3050		
-3000 mm	Lower rear dozer up	*7000	6200	5450	*5000	3300	3000								*3300	2350	2150	5790	
	Lower rear dozer down	*7000	*7000	6300	*5000	*5000	3400								*3300	*3300	2400		
	Lower f. dozer & r. stabilizer down	*7000	*7000	*7000	*5000	*5000	*5000								*3300	*3300	*3300		
	Lower 2 sets of stabilizers down	*7000	*7000	*7000	*5000	*5000	*5000								*3300	*3300	*3300		

\*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. 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.



# M314F Wheeled Excavator Specifications

## Lift Capacities – Offset Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (3300 kg), heavy lift on.

Medium Stick 2300 mm	T	Load at maximum reach (stick nose/bucket pin)			Load over front			Load over rear			Load over side			Load point height		
		3000 mm			4500 mm			6000 mm			7500 mm			mm		
		Stick	Quick Coupler	Bucket	Stick	Quick Coupler	Bucket	Stick	Quick Coupler	Bucket	Stick	Quick Coupler	Bucket	Stick	Quick Coupler	Bucket
7500 mm	Lower rear dozer up				*3800	*3800	3650							*3300	*3300	*3300
	Lower rear dozer down				*3800	*3800	*3800							*3300	*3300	*3300
	Lower f. dozer & r. stabilizer down				*3800	*3800	*3800							*3300	*3300	*3300
	Lower 2 sets of stabilizers down				*3800	*3800	*3800							*3300	*3300	*3300
6000 mm	Lower rear dozer up				*4550	4100	3750	*3300	2450	2200				*2750	2350	2100
	Lower rear dozer down				*4550	*4550	4200	*3300	*3300	2500				*2750	*2750	2400
	Lower f. dozer & r. stabilizer down				*4550	*4550	*4550	*3300	*3300	*3300				*2750	*2750	*2750
	Lower 2 sets of stabilizers down				*4550	*4550	*4550	*3300	*3300	*3300				*2750	*2750	*2750
4500 mm	Lower rear dozer up				*5000	3900	3500	3550	2400	2200				*2600	1800	1600
	Lower rear dozer down				*5000	*5000	3950	3550	*4100	2450				*2600	*2600	1850
	Lower f. dozer & r. stabilizer down				*5000	*5000	*5000	*4100	*4100	3850				*2600	*2600	*2600
	Lower 2 sets of stabilizers down				*5000	*5000	*5000	*4100	*4100	*4100				*2600	*2600	*2600
3000 mm	Lower rear dozer up				5350	3500	3150	3400	2250	2050				2400	1550	1400
	Lower rear dozer down				5350	*5700	3600	3400	*4350	2300				2400	*2600	1600
	Lower f. dozer & r. stabilizer down				*5700	*5700	*5700	*4350	*4350	3700				*2600	*2600	*2600
	Lower 2 sets of stabilizers down				*5700	*5700	*5700	*4350	*4350	*4350				*2600	*2600	*2600
1500 mm	Lower rear dozer up				4950	3150	2800	3250	2100	1900	2300	1500	1300	2300	1450	1300
	Lower rear dozer down				4900	*6250	3200	3200	*4550	2150	2300	*2850	1500	2300	*2700	1500
	Lower f. dozer & r. stabilizer down				*6250	*6250	5400	*4550	*4550	3500	*2850	*2850	2500	*2700	*2700	2500
	Lower 2 sets of stabilizers down				*6250	*6250	*6250	*4550	*4550	4300	*2850	*2850	*2850	*2700	*2700	*2700
0 mm	Lower rear dozer up				4750	2950	2600	3100	2000	1750				2350	1500	1350
	Lower rear dozer down				4700	*6100	3050	3100	*4450	2050				2350	*3000	1550
	Lower f. dozer & r. stabilizer down				*6100	*6100	5200	*4450	*4450	3400				*3000	*3000	2550
	Lower 2 sets of stabilizers down				*6100	*6100	*6100	*4450	*4450	4200				*3000	*3000	*3000
-1500 mm	Lower rear dozer up	*6900	5550	4750	4700	2950	2600	3100	1950	1750				2650	1700	1500
	Lower rear dozer down	*6900	*6900	5600	4700	*5300	3000	3100	*3800	2000				2650	*2950	1750
	Lower f. dozer & r. stabilizer down	*6900	*6900	*6900	*5300	*5300	5150	*3800	*3800	3350				*2950	*2950	2900
	Lower 2 sets of stabilizers down	*6900	*6900	*6900	*5300	*5300	*5300	*3800	*3800	*3800				*2950	*2950	*2950
-3000 mm	Lower rear dozer up				*3650	3050	2700									
	Lower rear dozer down				*3650	*3650	3100									
	Lower f. dozer & r. stabilizer down				*3650	*3650	*3650									
	Lower 2 sets of stabilizers down				*3650	*3650	*3650									

\*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. 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.

# M314F Standard Equipment

## Standard Equipment

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

### ELECTRICAL

- Alternator, 100 A
- Lighting
  - LED light package, including all working lights (compatible with falling object guard). Working lights include cab mounted lights (two front, one rear) and one on the counterweight for the rear 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
- Electrical refueling pump
- Signal/warning horn

### ENGINE

- Cat C4.4 engine with ACERT Technology meets Stage IV emission standards
- Aftertreatment technologies including the Cat Clean Emission Module package (CEM)
- Automatic Engine Speed Control (AESC), including one touch low idle
- Engine Idle Shutdown (EIS)
- Power mode selector
- Altitude 3000 m
- Automatic starting aid
- Fuel/water separator with water in fuel switch
- Electric fuel priming pump

### HYDRAULICS

- Adjustable hydraulic sensitivity
- All Cat XT™-6 ES hoses
- Anti-drift valves for bucket, and tool control/multi-function circuits
- 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 attachments
  - 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).

- Boom Lowering Check Valve (BLCV), including overload warning device
- Heavy lift mode
- Load-sensing hydraulic system
- Separate swing pump
- Stick Lowering Check Device (SLCV)
- Stick regeneration circuit

### 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) display through the cab monitor
  - Right side wide angle camera, mounted on the cooling hood, displayed 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

- 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 with extended greasing intervals
- Two speed hydrostatic transmission

### OTHER EQUIPMENT

- Auto-lube, centralized greasing (implement and swing gear)
- Automatic swing brake
- Counterweight, 2800 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

\*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
- SmartBoom

### HYDRAULICS

- Cat BIO HYDO Advanced HEES biodegradable hydraulic oil

### FRONT LINKAGE

- Booms
  - One-piece boom, 4815 mm
  - VA boom (two piece), 5028 mm
  - Offset boom, 5028 mm
- Sticks
  - 2000 mm
  - 2300 mm
  - 2600 mm
  - 2900 mm Industrial Stick (without autolube)

### ELECTRICAL

- Adjustable travel alarm
- Rotating beacon on cab

### OPERATOR STATION

- Joystick steering
- Seat, adjustable 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 cooled
- Windshield
  - One-piece high impact resistant, laminated (EN356 P5A standards, 10 mm)
  - 70/30 split, openable
- Mirrors heated, frame and cab
- High pressure pedal
- Joystick pattern, changeable
- Falling Object Guards (top and front)

### UNDERCARRIAGE

- Rear radial blade only
- Front blade (radial)/rear outriggers
- Front outriggers/rear blade (radial)
- Front and rear outriggers
- Travel restraint

### 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, 3300 kg
- Fenders, front and rear
- Ride Control
- Tires (see pg. 22)
- Attachments (see pg. 25-28)

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