

M320F

Wheeled Excavator



Engine

Engine Model	Cat® C7.1 ACERT™
Emissions	EU Stage IV
Net Power (Maximum)	
ISO 9249 at 1,550 rpm	126 kW (169 hp)
ISO 9249/SAE J1349 (metric)	171 hp (PS)
ISO 13496 at 1,550 rpm (gross)	129.4 kW (174 hp)

Weights

Operating Weight	18 750 kg-20 650 kg
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Bucket Specifications

Bucket Capacities	0.35 m ³ -1.18 m ³
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Working Ranges

Maximum Reach at Ground Level	9580 mm
Maximum Digging Depth	6330 mm

Drive

Maximum Travel Speed	35 km/h
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M320F 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 work tools 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 EU Stage IV emission standards, performs the same amount of work, while burning significantly less fuel than the previous model, which means more efficiency, less resources, and fewer CO₂ emissions.

Quiet Operation

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

Transparent Technologies and Longer Service Intervals

- The new Eco Modes, 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 M320F has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm of sulfur or less or biodiesel (B20) 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 C7.1 ACERT engine meets today's EU 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

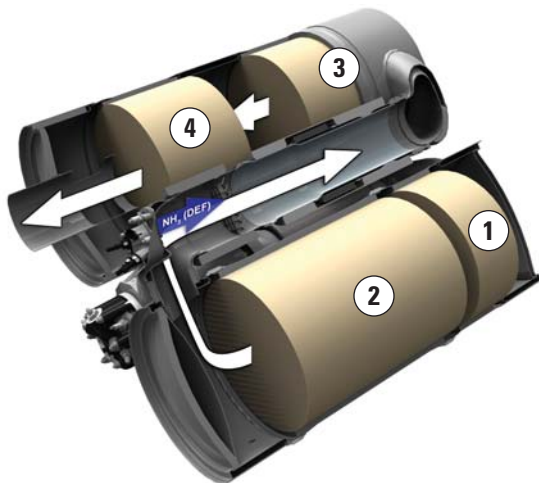
The engine can run on B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

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.
- 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.



1) DOC 2) DPF 3) SCR Catalyst 4) AMOX

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 – Not an Option

ROPS/FOGS cabs, 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

- Joystick consoles, 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

Incredibly Low Sound Levels, Less Fatigue

Increased cab pressure, preventing from dust entry, combined with the new 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 premium cars.

Outstanding Visibility: See the Difference!

- Standard LED working lights and halogen roading lights
- Standard LED dome light
- All glass areas have been drastically increased
- Choice of 70/30 front windshield or one-piece windshield
- New wide angle mirrors including a lower mirror for a 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 Easy, 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 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.



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 Secondary Hydraulics:** 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

- **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 pressure function (for tilting buckets or rotating tools), high pressure lines and circuit, hydraulic quick coupler circuit: they all come standard, which allows you to switch from one work tool to another, without the need to add lines and hydraulic circuits.



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.

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

- 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

- **Medium stick (2500 mm)** for greater crowd force and lift capacity
- **Long stick (2800 mm)** for greater depth and reach
- **Industrial stick (3300 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.



SmartBoom

Reduces Stress and Vibration

Rock Scraping

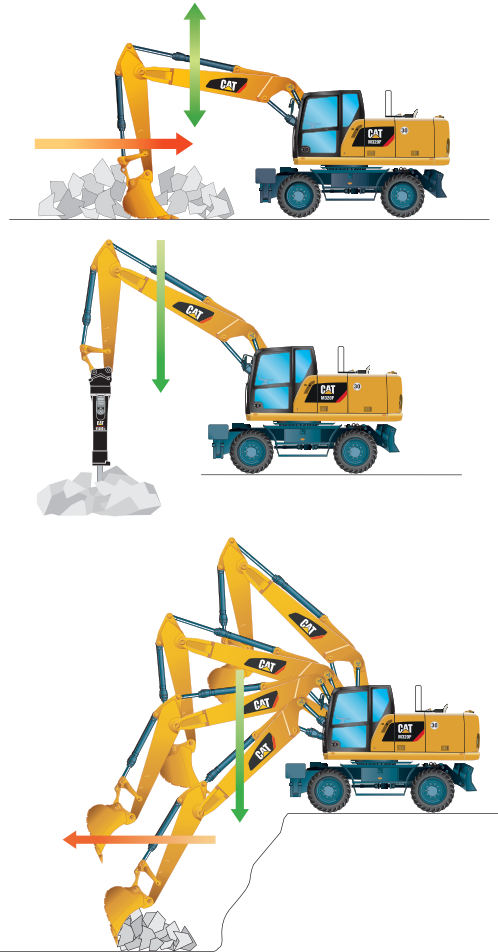
Scraping rock and finishing work is easy and fast. SmartBoom™ simplifies the task and allows more focus on stick and bucket, while the boom freely goes up and down without using pump flow.

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.





Work Tools

Optimizes Your Performance



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 work tools 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 work tools to your Cat machine, and get the most out of the standard, built-in software. Work tool changes have never been easier!

Get the Most from Your Machine

If you have multiple tasks to get done in a typical work day, the M320F can help. Highly versatile, 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. Operators will be encouraged to use the right tool for the job and fewer machines will be needed.

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 work tool will do the job quickly.

Break, Demolish and Scrap

When a structure must be demolished, it has to be done quickly – and sustainably. The Cat MP300 Multi-Processors let you do exactly that and meet every demolition need. Cat E Series hammers deliver very high blow rates, and shears provide effective scrap processing.



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 tank 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 compartments.

A Cool Design for Any Temperature

The side-by-side and radial 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.

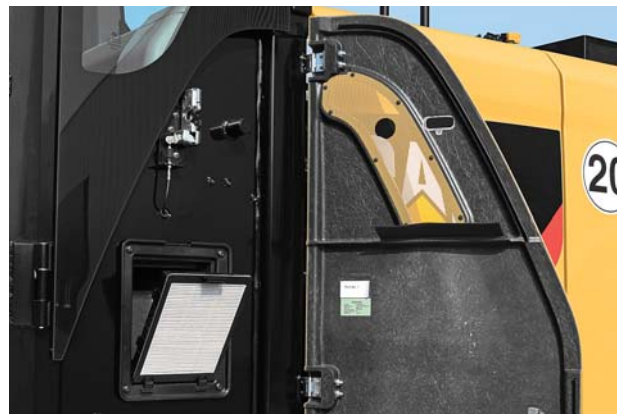
A Fresh Idea

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 engine key.

Lube and Fuel Options

An electric lubricator system is an available time-saving standard feature for greasing the whole upper carriage. Greasing points for the undercarriage are kept to a minimum and grouped. 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 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.

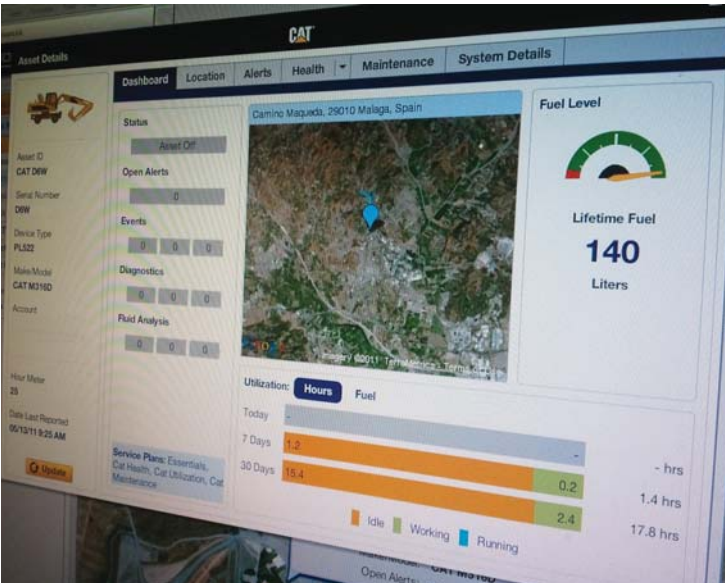
Featured Cat Connect technologies include the following:

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 An Option

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 switch disconnect
- Adjustable 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 drastically reduced sound levels.



Access into the cab of a wheeled excavator has always been a challenge. We bring a solution to allow you to safely climb into the cab:

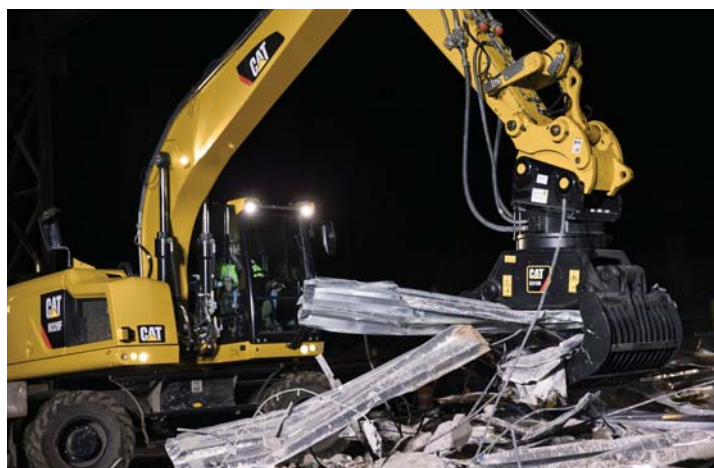
- Three longer access steps, aligned with the cab entry
- Anti-skid plates on all walkways and steps reducing slipping hazards
- Convenient door handrail
- Additional extended handrail, from the top to the bottom of the cab
- Tiltable console, not to obstruct entry into the cab
- Safety lever built into the tiltable console to make sure the way in and out is free of obstacle



- 1) Laminated windshield and skylight window
- 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 switch disconnect
- 9) Swing and implement electronic lock
- 10) Adjustable travel alarm
- 11) All doors equipped with spring gas cylinders
- 12) Emergency hammer and exit
- 13) ROPS/FOGS compatible cab
- 14) Sound proofing
- 15) Beacon available
- 16) Falling Object Guard compatibility

Smart Lighting

- LED lights for all working lights for enhanced night-time visibility
- Halogen lights for all roading lights
- LED dome light for better illumination inside the cab

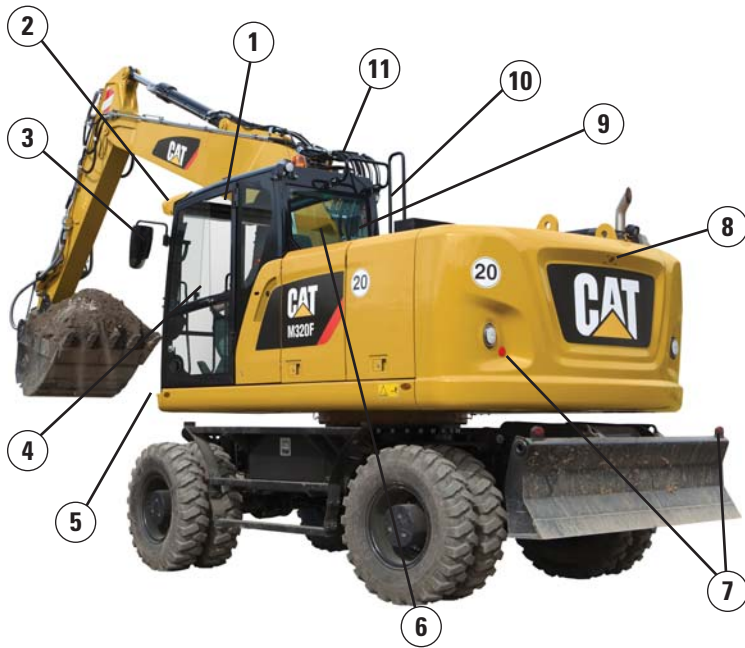


Great Views

- 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 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 wide 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.



M320F Wheeled Excavator Specifications

Engine

Engine Model	Cat C7.1 ACERT ⁽¹⁾
Ratings	1,550 rpm
Engine Gross Power (maximum)	
ISO 14396	129.4 kW (174 hp)
ISO 14396 (metric)	176 hp (PS)
Net Power (Rated) ⁽²⁾	
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 1,400 rpm	830 N·m
Number of Cylinders	6

⁽¹⁾ Meets EU Stage IV emission standards.

⁽²⁾ Rated speed 1,550 rpm. Constant power from 1,500-1,550 rpm.

- Net power advertised is the power available at the flywheel when engine is equipped with air cleaner, Cat Emission Module (EM) 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
Creep Speed	
1st Gear	3 km/h
2nd Gear	12 km/h
Drawbar Pull	104 kN
Maximum Gradeability (at 18 500 kg)	64%

Swing Mechanism

Swing Speed	10 rpm
Swing Torque	42 kN·m

Undercarriage

Ground Clearance	370 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	±8.5°
Minimum Turning Radius	
Standard Axle	
Outside of Tire	6400 mm
End of VA Boom	7000 mm
End of One-Piece Boom	8300 mm
Wide Axle	
Outside of Tire	6500 mm
End of VA Boom	7300 mm
End of One-Piece Boom	8500 mm

Service Refill Capacities

Fuel Tank (total capacity)	415 L
Diesel Exhaust Fluid Tank	34.5 L
Cooling System	46.9 L
Engine Crankcase	18.5 L
Rear Axle Housing (differential)	14 L
Front Steering Axle (differential)	10.5 L
Final Drive	2.5 L
Powershift Transmission	2.5 L

Weights

Operating Weights*	18 750 kg-20 650 kg
Weights	
VA Boom	
Rear Dozer Only	18 950 kg
Rear Dozer, Front Outriggers	19 950 kg
Front and Rear Outriggers	20 150 kg
One-Piece Boom	
Rear Dozer, Front Outriggers	19 450 kg
Front and Rear Outriggers	19 650 kg
Sticks**	
Medium (2500 mm)	930 kg
Long (2800 mm)	970 kg
Industrial (3300 mm)	500 kg
Counterweight	
Standard	3700 kg
Optional	4200 kg

*Operating weight includes medium stick, 3700 kg counterweight, full fuel tank, operator, 245 kg quick coupler, 635 kg bucket and dual pneumatic tires. Weight varies depending on configuration.

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

M320F Wheeled Excavator Specifications

Hydraulic System

Tank Capacity	153 L
System	270 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	310 bar
Maximum Flow	
Implement/Travel Circuit	288 L/min
Auxiliary Circuit	
High Pressure	288 L/min
Medium Pressure	49 L/min
Swing Mechanism	107 L/min

Tires

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)

Blade

Blade Type	Parallel
Blade Roll-Over Height	576 mm
Width (standard axles)	2550 mm
Width (wide axles)	2750 mm

Sustainability

Engine Emissions	EU Stage IV
Fluids (Optional)	
Cat Bio HYDO™ Advanced	Readily biodegradable EU Flower eco-label certified
Biodiesel up to B20	Meets EN14214 or ASTM D6751 with EN590 or ASTM D975 Standard Mineral diesel fuels
Vibration Levels	
Maximum Hand/Arm	
ISO 5349:2001	<2.5 m/s ²
Maximum Whole Body	
ISO/TR 25398:2006	<0.5 m/s ²
Seat Transmissibility Factor	
ISO 7096:2000-spectral class EM5	<0.7 m/s ²

Standards

ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS criteria ISO 12117-2:2008
FOPS	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	100 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).

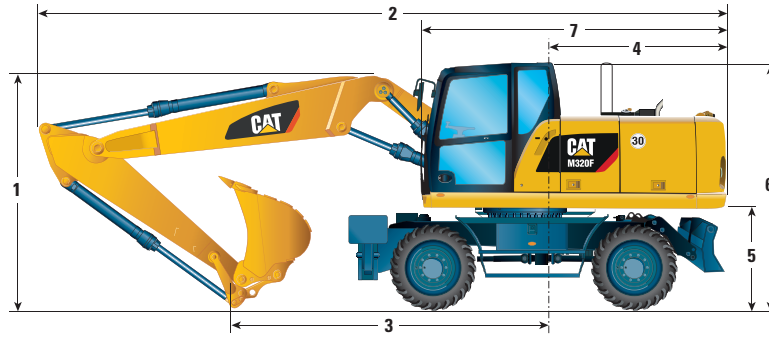
Blade

Blade Type	Parallel
Blade Options – Width	2550 mm, 2750 mm
Blade Total Height	680 mm
Maximum Lowering Depth from Ground	130 mm
Maximum Raising Height above Ground	495 mm

M320F Wheeled Excavator Specifications

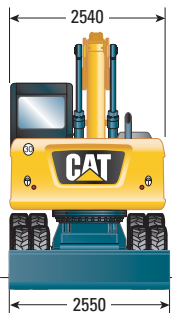
Dimensions

Dimensions are with 10.00-20 tires. All dimensions are approximate.

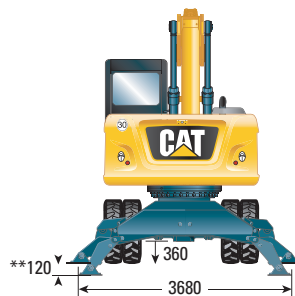


	mm	Variable Adjustable Boom			One-Piece Boom		
		2500	2800	*3300	2500	2800	*3300
Stick Length	mm						
1 Shipping Height with Guard Falling Object and Handrails Lowered (highest point between boom and cab)	mm		3330		3320	3290	
2 Shipping Length	mm	9025	9025	8920	8915	8890	9065
3 Support Point	mm	3495	3315	3270	3640	3500	3070
4 Tail Swing Radius	mm			2570			
5 Counterweight Clearance	mm			1280			
6 Cab Height – No Guard Falling Object, Handrails Lowered	mm			3190			
With Handrails not Lowered	mm			3260			
With Guard Falling Object	mm			3320			
7 Overall Machine Width							
Standard Axle	mm			2550			
Wide Gauge Axle	mm			2750			

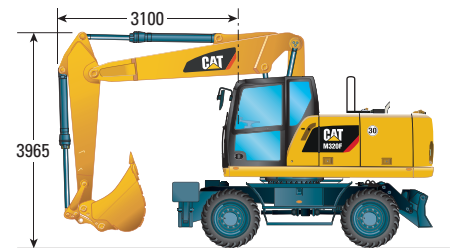
*Industrial stick will be available in 2015.



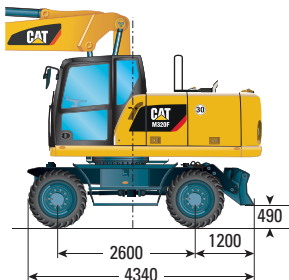
** Maximum tire clearance with outrigger fully down



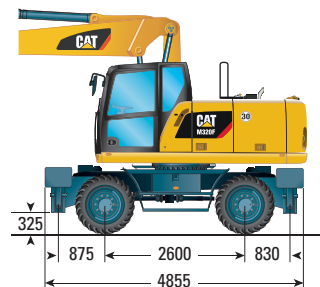
Roading position with 2500 mm stick



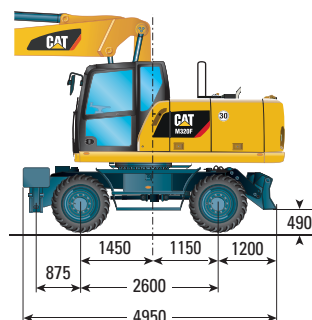
Undercarriage with dozer only



Undercarriage with 2 sets of outriggers

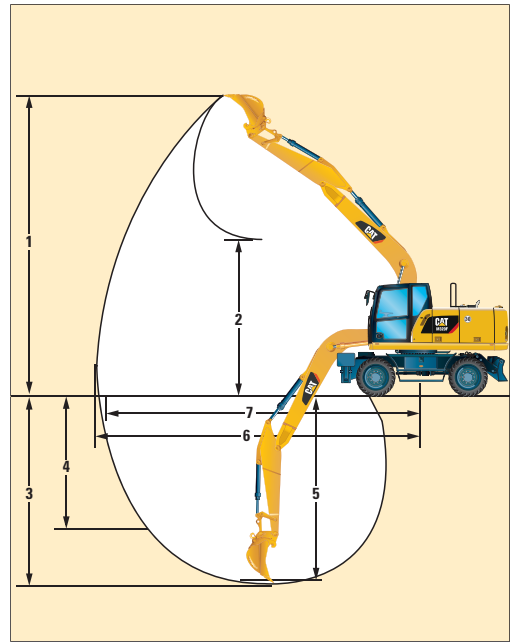
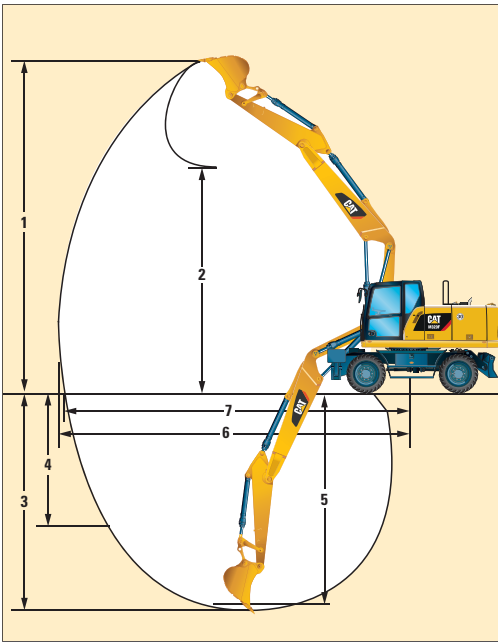


Undercarriage with 1 set of outriggers and dozer



M320F Wheeled Excavator Specifications

Working Ranges



	mm	Variable Adjustable Boom			One-Piece Boom		
		2500	2800	*3300	2500	2800	*3300
Stick Length	mm	2500	2800	*3300	2500	2800	*3300
1 Digging Height	mm	9950	10 165	8970	8940	9095	7720
2 Dump Height	mm	6970	7180	3980	6140	6290	3200
3 Digging Depth	mm	6035	6330	5030	5980	6280	4820
4 Vertical Wall Digging Depth	mm	4230	4510	—	3935	4225	—
5 Depth 2.5 m in Straight Clean-Up	mm	5930	6235	—	5755	6070	—
6 Reach	mm	9450	9735	8370	9470	9750	8130
7 Reach at Ground Level	mm	9270	9565	8170	9295	9580	7920
Bucket Forces (ISO 6015)	kN	122			122		
Stick Forces (ISO 6015)	kN	91	84	—	91	84	—

Range values are calculated with GD Bucket, 1200 mm, 0.98 m³ with tips K080 and CW-30-H.4.N. quick coupler with a tip radius of 1535 mm.

Bucket and Stick force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1462 mm.

*Industrial stick will be available in 2015. Industrial stick has no bucket linkage. All dimensions refer to stick nose.

M320F Wheeled Excavator Specifications

Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

				Variable Adjustable Boom								One-Piece Boom							
Counterweight				3.7 mt								3.7 mt							
Stick Length				2500 mm				2800 mm				2500 mm				2800 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
	mm	m ³	kg																
Without Quick Coupler																			
General Duty (GD)	600	0.41	474																
	750	0.56	522																
	900	0.70	583																
	1050	0.83	632																
	1200	1.00	695																
	1300	1.09	724																
	1400	1.18	756																
Heavy Duty (HD)	900	0.70	626																
	1100	0.83	669																
	1200	1.00	733																
	1300	1.09	763																
Ditch Cleaning (DC)	2000	0.70	650																
Ditch Cleaning Tilt (DCT)	1800	0.48	819																
	2000	0.58	865																
	2300	0.62	912																
With Quick Coupler (CW-30/CW-30s)																			
General Duty (GD)	600	0.35	416																
	750	0.49	462																
	900	0.62	524																
	1100	0.79	583																
	1200	0.91	633																
	1300	1.00	663																
	1400	1.09	693																
Heavy Duty (HD)	1200	0.91	649																
	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/m³
- Maximum material density 1800 kg/m³
- Maximum material density 1500 kg/m³
- Maximum material density 1200 kg/m³
- Maximum material density 900 kg/m³
- 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.

M320F Wheeled Excavator Specifications

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.

		Variable Adjustable Boom																										
		Counterweight									3.7 mt									4.2 mt								
		(1)			(2)			(3)			(1)			(2)			(3)											
Stick Length (mm)		2500	2800	3300	2500	2800	3300	2500	2800	3300	2500	2800	3300	2500	2800	3300	2500	2800	3300									
Hydraulic Hammer	H115Es																											
	H120Es																											
	H130Es																											
Multi-Processor	MP318 CC Jaw																											
	MP318 D Jaw																											
	MP318 U Jaw																											
	MP318 S Jaw																											
Crusher	P315																											
Pulverizer	P215																											
Demolition and Sorting Grapple (D-Demolition shells, R-Recycling shells)	G315 GC																											
	G315 GC fixed CAN																											
	G315B-D/R																											
	G315B-D/R fixed CAN																											
Scrap and Demolition Shear	S325B																											
Compactor Plate	CVP75																											
Orange Peel Grapple (4 or 5 Tines)	GSH15B 400L																											
	GSH15B 500L																											
	GSH15B 600L																											
	GSH15B 800L																											
Clamshell Grapple	CTV15 1000L																											
	CTV15 1200L																											
	CTV15 1500L																											
	CTV15 1700L																											
Pin Grabber Coupler	CL-QC																											
Dedicated Quick Coupler	CW-30																											
	CW-30S																											

These work tools are available for the M320F.
Consult your Cat dealer for proper match.

- (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
 - Over the front only
 - Boom Mount
 - Over the front only with dedicated coupler
 - Over the front only with CL 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.

M320F Wheeled Excavator Specifications

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-Piece Boom																	
		Counterweight			3.7 mt						4.2 mt								
					(1)		(2)		(3)		(1)		(2)		(3)				
		Stick Length (mm)			2500	2800	3300	2500	2800	3300	2500	2800	3300	2500	2800	3300	2500	2800	3300
Hydraulic Hammer	H115Es																		
	H120Es																		
	H130Es																		
Multi-Processor	MP318 CC Jaw																		
	MP318 D Jaw																		
	MP318 P Jaw																		
	MP318 U Jaw																		
	MP318 S Jaw																		
Crusher	P315																		
Pulverizer	P215																		
Demolition and Sorting Grapple (D-Demolition 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																		

- | | | |
|---------------------------------|---|---|
| (1) Dozer lowered |  Work Tool is a match |  Boom Mount |
| (2) 2 sets outriggers lowered |  Pin-on or dedicated coupler |  Over the front only with dedicated coupler |
| (3) Dozer and outrigger lowered |  Pin-on only |  Over the front only with CL coupler |
| |  Over the front only | |

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.

M320F Wheeled Excavator Specifications

Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, work tool: none, with counterweight (3700 kg), heavy lift on.

Medium Stick 2500 mm	Load at maximum reach (stick nose/bucket pin)	Load over front	Load over rear	Load over side	Load point height	Lift Capacity (kg)												mm
						3000 mm			4500 mm			6000 mm			7500 mm			
						Stick up	Stick down	Wide rear dozer up	Stick up	Stick down	Wide rear dozer up	Stick up	Stick down	Wide rear dozer up	Stick up	Stick down	Wide rear dozer up	
6000 mm	Rear dozer up					*6200	5900	5100	5100	3600	3150				*3300	3000	2600	6630
	Rear dozer down					*6200	5850		*5500	3600					*3300	3000		
	Dozer and stabilizer down					*6200	*6200		*5500	5350					*3300	*3300		
	2 sets of stabilizers down					*6200	*6200	*5500	*5500	*5500					*3300	*3300		
4500 mm	Wide rear dozer up						5900	5600		3650	3450					3000	2900	7410
	Rear dozer up					*7200	5600	4850	5000	3550	3050				*3150	2450	2100	
	Rear dozer down					*7200	5550		*6100	3500					*3150	2450		
	Dozer and stabilizer down					*7200	*7200		*6100	5250					*3150	*3150		
3000 mm	2 sets of stabilizers down					*7200	*7200	*6100	*6100	6050					*3150	*3150		
	Wide rear dozer up						5600	5300		3550	3400					2450	2350	
	Rear dozer up					7450	5100	4400	4800	3350	2900	3400	2350	2000	3150	2150	1850	7820
	Rear dozer down					*8700	5100		*6650	3350					*3150	2150		
Dozer and stabilizer down					*8700	7850		*6650	5050					*3150	*3150			
2 sets of stabilizers down					*8700	*8700	*6650	*6650	5850	*5250	*5250	4100		*3150	*3150			
1500 mm	Wide rear dozer up						5150	4850		3350	3200					2200	2100	
	Rear dozer up					7000	4700	4000	4600	3150	2700	3300	2250	1950	3050	2050	1800	7910
	Rear dozer down					*9900	4650		7150	3150					*3350	2050		
	Dozer and stabilizer down					*9900	7400		7200	4800					*3350	3200		
2 sets of stabilizers down					*9900	*9900	*7200	*7200	5600	*5750	5200	4000		*3350	*3350			
0 mm	Wide rear dozer up						4700	4450		3150	3000					2050	2000	
	Rear dozer up					6750	4450	3750	4450	3000	2550	3250	2200	1850	3100	2100	1800	7700
	Rear dozer down					*10 100	4450		7000	3000					*3700	2100		
	Dozer and stabilizer down					*10 100	7100		7000	4650					*3700	3250		
2 sets of stabilizers down					*10 100	*10 100	8500	*7350	7200	5450	*5600	5100	3950	*3700	*3700			
-1500 mm	Wide rear dozer up						4450	4200		3000	2850					2100	2000	
	Rear dozer up	*9450	8350	6800	6700	4400	3700	4350	2950	2500					3450	2300	2000	7160
	Rear dozer down		*9450	8200		*9350	4350		*6900	2950						*4400	2350	
	Dozer and stabilizer down		*9450	*9450		*9350	7050		*6900	4600						*4400	3600	
2 sets of stabilizers down	*9450	*9450	*9450	*9350	*9350	8400	*6900	*6900	5400					*4400	*4400	4200		
-3000 mm	Wide rear dozer up						8350	7700		2950	2800					2350	2200	
	Rear dozer up					6750	4450	3800	4450	3000	2600				4250	2900	2500	6210
	Rear dozer down					*7600	4450		*5250	3000					*4800	2900		
	Dozer and stabilizer down					*7600	7150		*5250	4700					*4800	4500		
2 sets of stabilizers down					*7600	*7600	*7600	*5250	*5250	*5250				*4800	*4800			
-3000 mm	Wide rear dozer up						4500	4250		3000	2850					2900	2750	

*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.

M320F Wheeled Excavator Specifications

Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, work tool: none, with counterweight (3700 kg), heavy lift on.

Long Stick 2800 mm		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					
																						
6000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up							5150	3650	3200							*2850	2750	2400	6980		
								*5150	3650									*2850	2750			
								*5150	*5150	*5150								*2850	*2850		*2850	
										3700	3500							2800	2650			
4500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				*6550	5650	4900	5050	3550	3100	3450	2400	2100				*2750	2300	1950	7720		
					*6550	5650			*5850	3550		*3850	2400					*2750	2300			
					*6550	*6550			*5850	5300		*3850	3650					*2750	*2750		*2750	
					*6550	*6550	*5850	*5850	*5850	*5850	*3850	*3850	*3850				*2750	*2750	*2750		*2750	
						5700	5400		3550	3400		2400	2300					2300	2200			
3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				7550	5200	4450	4800	3350	2900	3400	2350	2050				*2750	2050	1750	8100		
					*8350	5150			*6450	3350		5150	2350					*2750	2050			
					*8350	7950			*6450	5050		5200	3550					*2750	*2750		*2750	
					*8350	*8350	*8350	*6450	*6450	5850	*5450	5300	4100				*2750	*2750	*2750		*2750	
						5200	4950		3350	3200		2350	2250					2050	1950			
1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				7050	4750	4000	4600	3150	2700	3300	2250	1950				2850	1950	1650	8190		
					*9700	4700			*7100	3150		5000	2250					*2900	1950			
					*9700	7450			*7100	4850		5050	3450					*2900	*2900		*2900	
					*9700	8800	*7100	*7100	*7100	5650	*5700	5200	4000				*2900	*2900	*2900		*2900	
						4750	4500		3150	3000		2250	2150					1950	1850			
0 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up				6750	4450	3750	4400	3000	2550	3200	2150	1850				2950	2000	1700	7990		
					*10 100	4450			7000	3000		4900	2150					*3200	2000			
					*10 100	7150			7000	4650		5000	3350					*3200	3100			
					*10 100	8500	*7350	*7350	7200	5450	*5650	5100	3950				*3200	*3200	*3200		*3200	
						4450	4200		3000	2850		2200	2050					2000	1900			
-1500 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up	*9000	8250	6700	6650	4350	3700	4350	2900	2500							3200	2150	1850	7480		
		*9000	8100			*9600	4350		6900	2900								*3750	2150			
		*9000	*9000			*9600	7050		6950	4600								*3750	3350			
		*9000	*9000	*9000	*9600	*9600	8400	*7000	*7000	5350							*3750	*3750	*3750		*3750	
			8300	7650		4400	4150		2900	2750							2150	2050				
-3000 mm	Rear dozer up Rear dozer down Dozer and stabilizer down 2 sets of stabilizers down Wide rear dozer up	*11 000	8400	6850	6700	4400	3750	4400	2950	2500							3900	2650	2250	6580		
		*11 000	8300			*8050	4400		*5750	2950								*4700	2650			
		*11 000	*11 000			*8050	7100		*5750	4600								*4700	4100			
		*11 000	*11 000	*11 000	*8050	*8050	*8050	*5750	*5750	5400							*4700	*4700	*4700		*4700	
			8450	7800		4450	4200		2950	2800							2650	2500				

*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.

M320F Wheeled Excavator Specifications

Lift Capacities – One-Piece Boom

All values are in kg, bucket cylinder and bucket linkage installed, work tool: none, with counterweight (4200 kg), heavy lift on.



Load at maximum reach (stick nose/bucket pin)



Load over front



Load over rear



Load over side



Load point height

Medium Stick
2500 mm

Stick mm	Undercarriage configuration	3000 mm			4500 mm			6000 mm			7500 mm			Load point height			mm
		Load at maximum reach	Load over front	Load over rear	Load at maximum reach	Load over front	Load over rear	Load at maximum reach	Load over front	Load over rear	Load at maximum reach	Load over front	Load over rear	Load at maximum reach	Load over front	Load over rear	
6000 mm	Rear dozer up							5350	3900	3400				*3450	3250	2850	6660
	Rear dozer down							*5500	3850						*3450	3200	
	Dozer and stabilizer down							*5500	*5500						*3450	*3450	
	2 sets of stabilizers down							*5500	*5500						*3450	*3450	
4500 mm	Wide rear dozer up							3900	3700						3250	3100	7430
	Rear dozer up							5250	3750	3300				*3350	2650	2300	
	Rear dozer down								*5950	3750					*3350	2650	
	Dozer and stabilizer down								*5950	5500					*3350	*3350	
3000 mm	2 sets of stabilizers down							*5950	*5950	*5950					*3350	*3350	
	Wide rear dozer up							3800	3600						2650	2550	
	Rear dozer up				7850	5450	4750	5050	3600	3150	3600	2550	2250	3350	2350	2050	7840
	Rear dozer down					*8600	5450		*6600	3600		5350	2550		*3400	2350	
Dozer and stabilizer down					*8600	8250		*6600	5300		5400	3750		*3400	*3400		
2 sets of stabilizers down				*8600	*8600	*8600	*6600	*6600	6150	*5450	*5450	4350	*3400	*3400	*3400		
1500 mm	Wide rear dozer up					5500	5200		3600	3450		2550	2450		2400	2250	7930
	Rear dozer up				7400	5050	4350	4850	3400	2950	3500	2450	2150	3250	2250	1950	
	Rear dozer down					*9900	5050		*7200	3400		5250	2450		*3650	2250	
	Dozer and stabilizer down					*9900	7800		*7200	5100		5300	3700		*3650	3400	
0 mm	2 sets of stabilizers down				*9900	*9900	9200	*7200	*7200	5900	*5800	5450	4250	*3650	*3650	*3650	
	Wide rear dozer up					5100	4800		3400	3250		2500	2350		2250	2150	
	Rear dozer up				7200	4850	4150	4750	3250	2850	3450	2400	2100	3300	2300	2000	7720
	Rear dozer down					*10 250	4850		7350	3250		5200	2400		*4100	2300	
Dozer and stabilizer down					*10 250	7600		7350	4950		5250	3600		*4100	3500		
2 sets of stabilizers down				*10 250	*10 250	8950	*7450	*7450	5750	*5750	5350	4200	*4100	*4100	4000		
-1500 mm	Wide rear dozer up					4900	4600		3300	3150		2400	2300		2300	2200	7190
	Rear dozer up	*9400	9100	7500	7150	4800	4100	4700	3200	2800				3650	2550	2200	
	Rear dozer down		*9400	8950		*9650	4800		*7100	3200					*4950	2550	
	Dozer and stabilizer down		*9400	*9400		*9650	7500		*7100	4900					*4950	3850	
-3000 mm	2 sets of stabilizers down	*9400	*9400	*9400	*9650	*9650	8900	*7100	*7100	5700					2550	2450	
	Wide rear dozer up		9150	8450		4850	4550		3250	3100					2550	2450	
	Rear dozer up	*10 850	9250	7650	7200	4900	4150	4750	3300	2850				4500	3150	2700	6240
	Rear dozer down		*10 850	9100		*8050	4850		*5700	3300					*5300	3100	
Dozer and stabilizer down		*10 850	*10 850		*8050	7600		*5700	4950					*5300	4700		
2 sets of stabilizers down	*10 850	*10 850	*10 850	*8050	*8050	*8050	*5700	*5700	*5700				*5300	*5300	*5300		
0 mm	Wide rear dozer up		9300	8600		4900	4650		3300	3150					3150	3000	

*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.

M320F Wheeled Excavator Specifications

Lift Capacities – One-Piece Boom

All values are in kg, bucket cylinder and bucket linkage installed, work tool: none, with counterweight (4200 kg), heavy lift on.

Long Stick 2800 mm		 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							
																	
6000 mm	Rear dozer up							*5150	3900	3450				*3000	*3000	2650	
	Rear dozer down								*5150	3900					*3000	3000	
	Dozer and stabilizer down								*5150	*5150					*3000	*3000	
	2 sets of stabilizers down							*5150	*5150	*5150					*3000	*3000	
4500 mm	Wide rear dozer up								3950	3750					*3000	2850	
	Rear dozer up							5300	3800	3350	3700	2650	2300	*2900	*2500	2150	
	Rear dozer down								*5700	3800		*4000	2650		*2900	2500	
	Dozer and stabilizer down								*5700	5550		*4000	3850		*2900	*2900	
3000 mm	2 sets of stabilizers down							*5700	*5700	*5700	*4000	*4000	*2900	*2900	*2900	*2900	
	Wide rear dozer up								3800	3650		2650	2500		2500	2400	
	Rear dozer up				7950	5550	4800	5100	3600	3150	3600	2550	2250	*2950	2250	1950	
	Rear dozer down					*8250	5500		*6400	3600		5400	2550		*2950	2250	
1500 mm	Dozer and stabilizer down					*8250	*8250		*6400	5350		5450	3800		*2950	*2950	
	2 sets of stabilizers down				*8250	*8250	*8250	*6400	*6400	6150	*545	*5450	4350	*2950	*2950	*2950	
	Wide rear dozer up					5550	5250		3650	3450		2550	2450		2250	2150	
	Rear dozer up				7450	5100	4400	4900	3400	2950	3500	2450	2150	3050	2150	1850	
0 mm	Rear dozer down					*9700	5100		*7050	3400		5250	2450		*3150	2150	
	Dozer and stabilizer down					*9700	7850		*7050	5100		5300	3700		*3150	*3150	
	2 sets of stabilizers down				*9700	*9700	9250	*7050	*7050	5950	*5700	5450	4250	*3150	*3150	*3150	
	Wide rear dozer up					5150	4850		3450	3250		2450	2350		2150	2050	
-1500 mm	Rear dozer up				7200	4850	4150	4700	3250	2800	3450	2400	2050	3150	2150	1900	
	Rear dozer down					*10 200	4850		7350	3250		5200	2400		*3500	2200	
	Dozer and stabilizer down					*10 200	7600		7350	4950		5250	3600		*3500	3300	
	2 sets of stabilizers down				*10 200	*10 200	8950	*7400	*7400	5750	*5750	5350	4150	*3500	*3500	*3500	
-3000 mm	Wide rear dozer up					4900	4600		3300	3100		2400	2300		2200	2100	
	Rear dozer up	*8900	*8900	7400	7100	4800	4050	4650	3200	2750				3400	2350	2050	
	Rear dozer down		*8900	8850		*9800	4750		*7200	3200					*4200	2350	
	Dozer and stabilizer down		*8900	*8900		*9800	7500		*7200	4900					*4200	3600	
-4500 mm	2 sets of stabilizers down	*8900	*8900	*8900	*9800	*9800	8900	*7200	*7200	5700				*4200	*4200	4150	
	Wide rear dozer up		*8900	8350		4800	4550		3200	3050					2400	2250	
	Rear dozer up	*11 700	9150	7550	7150	4850	4100	4700	3250	2800				4150	2850	2500	
	Rear dozer down		*11 700	9000		*8450	4800		*6100	3200					*5150	2850	
-4500 mm	Dozer and stabilizer down		*11 700	*11 700		*8450	7550		*6100	4900					*5150	4350	
	2 sets of stabilizers down		*11 700	*11 700	*8450	*8450	*8450	*6100	*6100	5750				*5150	*5150	5000	
	Wide rear dozer up		9200	8500		4850	4600		3250	3100					2850	2750	
	Rear dozer up				*5500	5000	4300							*4500	4250	3650	
-4500 mm	Rear dozer down					*5500	5000								*4500	4250	
	Dozer and stabilizer down					*5500	*5500								*4500	*4500	
	2 sets of stabilizers down				*5500	*5500	*5500							*4500	*4500	*4500	
	Wide rear dozer up					5050	4750								4250	4050	

*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.

M320F Wheeled Excavator Standard Equipment

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)
 - Boom working light
 - Cab interior LED light
 - Roading lights two front
 - Roading lights two LED modules rear
 - LED working lights, cab mounted (two front, one rear, and one counterweight for the rear camera)
- Main shut-off switch
- Maintenance free batteries, heavy duty
- Signal/warning horn
- Electrical refueling pump

ENGINE

- Cat C7.1 engine with ACERT Technology EU Stage IV compliant
- Aftertreatment technologies including the Cat Emission Module package (EM)
- 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

HYDRAULICS

- Adjustable hydraulic sensitivity
- Auxiliary boom and stick lines
- 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 work tools
 - Tool control/multi function
 - One/two-way high pressure for hammer application or opening and closing of a work tool
 - Programmable flow and pressure for up to 10 work tools – selection via monitor
 - Quick coupler circuit and lines for hydraulic quick coupler
- BLCV including overload warning device

- Heavy lift mode
- Load-sensing hydraulic system
- Separate swing pump
- SLCV
- Stick regeneration circuit

OPERATOR STATION

- 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 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 color large 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 and gauges
 - 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, emergency, tempered glass, with hammer
- Retractable seat, integrated into the seat
- Safety lever, integrated into the left console
- Sealed cab with positive filtered ventilation
- Skylight, laminated glass
- 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 axle/break 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
- Tires, 10.00-20 16 PR, dual
- Steps with toolbox in undercarriage (left and right)
- Two-piece drive shaft
- Two speed hydrostatic transmission

OTHER EQUIPMENT

- Auto-lube, centralized greasing (implement and swing gear)
- Automatic swing brake
- Bucket linkage with diverter valve
- Counterweight, 3700 kg
- Engine emergency shutoff switch
- Mirrors, wide angle, frame and cab
- Product Link
- S-O-SSM 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
- Cat BIO HYDO Advanced HEES biodegradable hydraulic oil
- SmartBoom

FRONT LINKAGE

- Booms
 - One-piece boom, 5350 mm
 - VA boom (two piece), 5260 mm
- Sticks
 - 2500, 2800 mm
 - 3300 mm Industrial stick with drop nose*

ELECTRICAL

- Back-up alarm with three selectable modes
- Rotating beacon on cab

OPERATOR STATION

- Joystick steering
- Seat, adjustable high-back
 - comfort, air-suspension, heated (vertical)
 - deluxe with headrest, air suspension, heated and ventilated
 - headrest, on all seats
- Windshield
 - One-piece high impact resistant
 - 70/30 split, openable
- Mirrors heated, frame and cab

UNDERCARRIAGE

- Rear blade only
- Front blade/rear outriggers
- Front outriggers/rear blade
- Front and rear outriggers
- Spacer rings for tires
- Travel restraint, for roading with a clamshell
- Wide axles
- Wide rear blade
- Wide blade rear/outriggers front

OTHER EQUIPMENT

- Cat Machine Security System (MSS)
- Cooling protection package for dusty applications (available in 2015)
- Counterweight, 4200 kg
- Fenders, front and rear
- Ride Control
- Tires (see pg. 22)
- Work Tools (see pg. 25-27)

*Available in 2015.

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