M316F 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)
	150 hp (PS)
Weights	
Operating Weight with Attachment	16 130 kg-19 320 kg

Bucket Specifications		
Bucket Capacities	0.35 m ³ -1.09 m ³	
Working Ranges		
Maximum Reach at Ground Level	9400 mm	,
Maximum Digging Depth	6100 mm	
Drive		
Maximum Travel Speed	35 km/h	

M316F 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.



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 ${\rm CO}_2$ 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 LinkTM 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 M316F has the flexibility of running on either ultra-lowsulfur diesel (ULSD) fuel with 10 ppm of sulfur or less or up to B20 biodiesel fuel blended with ULSD.
- Cat BIO HYDO™ Advanced HEES™ 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:

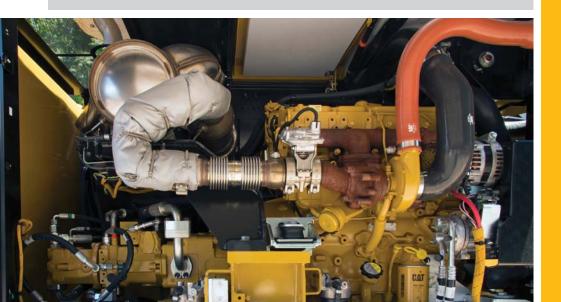
- Transparent: no operator intervention
- Efficient: no work interruption, even in case of extended idling time
- **Simple:** minimum maintenance. Longitudinal engine installation, which further simplifies maintenance.

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.



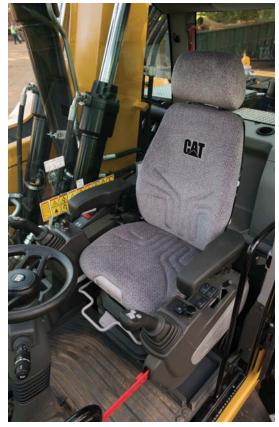


Built-in Fuel Savers That Add Up

- 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 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.

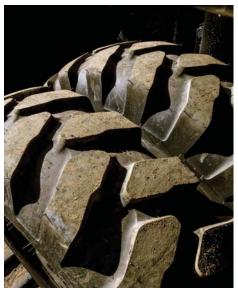
Advanced Disc Brake System

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

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

Booms and Sticks

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

Rugged Performance

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

Flexibility

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

Sticks

- Short stick 2100 mm for maximum breakout force and lifting capability
- Medium stick 2400 mm for greater crowd force and lift capacity
- Long stick 2600 mm for greater depth and reach
- Industrial stick 3100 mm: 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

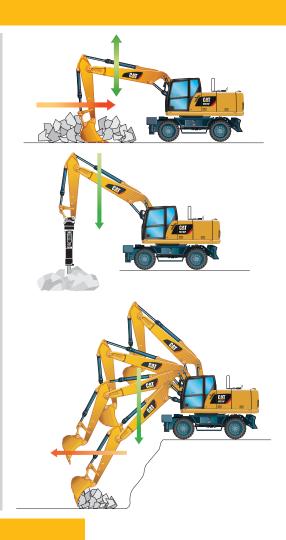
Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows more focus on stick and bucket, while the boom freely goes up and down without using pump flow.

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.

















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 M316F can help. And you can easily expand all the possibilities it offers by utilizing any of the variety of Cat attachments.



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.



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.



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

A Fresh Idea

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

Lube and Fuel 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



140 17.8 hrs Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technologyequipped machines, you'll get more information and insight into your equipment and operations than ever before. Cat Connect technologies offer improvements in these key areas:



Equipment Management - increase uptime and reduce operating costs.



Productivity – monitor production and manage job site efficiency.



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

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









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







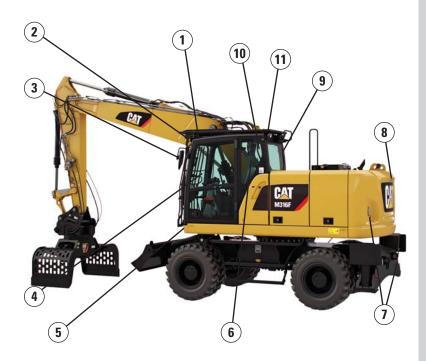


Great Views

- 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

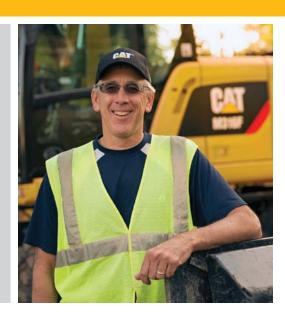
Complete Customer Care

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.



Engine	
Engine Model	Cat C4.4 ACERT (1)
Ratings	2,000 rpm
Engine Gross Power (maximum)	
ISO 14396	110 kW (148 hp)
ISO 14396 (metric)	150 hp (PS)
Net Power (Rated) (2)	
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

- (1) Meets Stage IV emission standards.
- (2) 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	10 km/h
2nd Gear	35 km/h
Creeper Speed	
1st Gear	3 km/h
2nd Gear	10 km/h
Drawbar Pull	104 kN
Maximum Gradeability (16 500 kg)	78%

Service Refill Capacities	
Fuel Tank (total capacity)	330 L
Diesel Exhaust Fluid Tank	19 L
Cooling System	38 L
Engine Crankcase	8 L
Rear Axle Housing (differential)	14 L
Front Steering Axle (differential)	10.5 L
Final Drive	2.5 L
Powershift Transmission	2.5 L

Swing Speed	9 rpm
Swing Torque	38 kN·m
Jung Torque	30 KI (III
Undercarriage	
Ground Clearance	370 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	±8.5°
Minimum Turning Radius	
Outside of Tire	6300 mm
End of One-Piece Boom	8400 mm
End of VA Boom	7100 mm
End of Offset Boom	7100 mm
Weights	
Operating Weights*	15 910 kg-17 850 kg
Weights	
VA Boom	
Rear Dozer Only	16 390 kg
Rear Dozer, Front Outriggers	17 360 kg
Front and Rear Outriggers	17 850 kg
One-Piece Boom	
Front Dozer, Rear Outriggers	16 880 kg
Front and Rear Outriggers	17 370 kg
Offset Boom	
Rear Dozer, Front Outriggers	17 910 kg
Front and Rear Outriggers	18 400 kg
Sticks**	
Short, 2100 mm	705 kg
Medium, 2400 mm	735 kg
Long, 2600 mm	755 kg
Industrial-Drop Nose, 3100 mm	420 kg
Counterweights	
-	
Standard	3200 kg

^{*}Operating weight includes medium stick, 3200 kg counterweight, full fuel tank, operator, quick coupler (210 kg), bucket (600 kg) and dual pneumatic tires. Weight varies depending on configuration.

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

Hydraulic System		
Tank Capacity	122 L	
System	240 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	370 bar	
Maximum Flow		
Implement/Travel Circuit	240 L/min	
Auxiliary Circuit		
High Pressure	240 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) 11.00-20 (Dual Pneumatic) 315/70R22.5 (Dual Pneumatic – No spacer ring between tires)
	445/70/R19.5 TL XF (Single Pneumatic)

Dozer Blade		
Blade Type	Radial	Parallel
Width	2540 mm	2550 mm
Blade Roll-Over Height	540 mm	576 mm
Blade Total Height	580 mm	680 mm
Maximum Lowering Depth From Ground	120 mm	131 mm
Maximum Raising Height Above Ground	475 mm	496 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 ²
Maximum Whole Body	
ISO/TR 25398:2006	<0.5 m/s ²
Seat Transmissibility Factor	
ISO 7096:2000-spectral class EM5	<0.7
Standards	
ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS

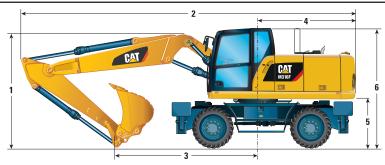
ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS criteria ISO 12117-2:2008
Operator Protective Structure: top/front guards	FOPS (Falling Object Protective Structure) meets FOPS criteria ISO 10262:1998 and SAE J1356:2008
Cab/Sound Levels	Meets appropriate standards as listed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

Dimensions

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



			VA E	Boom			One-Pie	ce Boom		Offset	Boom			
Stick Length	mm	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400			
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300			
2 Shipping Length	mm	8645			8610	8485	8490	8495	8505	8640	8630			
3 Support Point	mm	3915 3655		3550	3650	3570	3285	3165	3230	4020	3775			
4 Tail Swing Radius	mm		22	220			22	20		22	20			
5 Counterweight Clearance	mm		12	260			12	60		12	60			
6 Cab Height – No Falling Object Guard, Handrails Lowered	mm		31	.70			31	70	31	70				
With Handrails not Lowered	mm		32	240			32	40		32	40			
With Falling Object Guard	mm		33	800			33	33	00					
7 Overall Machine Width					Stan	dard/Hea	vy Duty U							
Width with Outriggers on Ground	mm		3645	/3680			3645	3645	/3680					
Width with Outriggers Up	mm		2545	/2550			2545		2545/2550					
Width with Blade	mm		2540	/2550			2540	/2550		2540/2550				
8 Maximum Outriggers Depth	mm		110	/120			110	/120		110	/120			



Undercarriage with dozer only



*Maximum tire clearance with outrigger fully down



Undercarriage with 2 sets of outriggers



Roading position with 2400 mm stick



Undercarriage with 1 set of outriggers and dozer

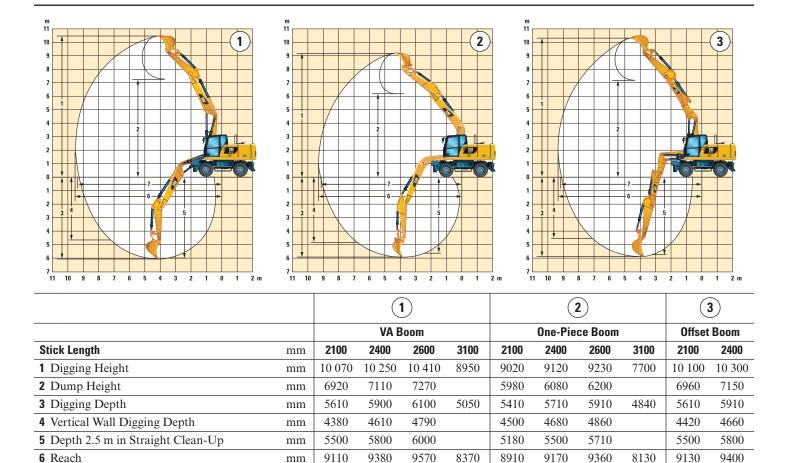


Working Ranges

7 Reach at Ground Level

Bucket Forces (ISO 6015)

Stick Forces (ISO 6015)



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

mm

mm

kN

Range values are calculated with GD Bucket, 1100 mm, 0.80 m³ with tips K080 and CW-20-H.4.N quick coupler with a tip radius of 1574 mm.

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

Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

		Variable Adjustable Boom 2100 mm 2400 mm 2600 mm 2100														0	ne-	Pied	e B	oor	n				Offset Boom									
Stick Length														2	100) mr	n	2	400	mm	1	2	600	mm		2	100	mm		2	400	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	Free on wheels	Front dozer lowered	Front dozer and rear outriggers	Fully stabilized	Free on wheels	Front dozer lowered	Front dozer and rear outriggers
Pin-on Buckets	mm	kg	m³					T								Wi	th 3	3.2 n	nt C	oun	terv	veiç	ght											
General Duty (GD)	750 1100 1200 1300 1400	464 583 651 663 712	0.49 0.79 0.91 1.00 1.09																															
Heavy Duty (HD)	1300	699	1.00	\vdash		+		\dashv												H	\vdash			\dashv	+			\dashv	\dashv			\dashv	\dashv	
, , , , , , , , , , , , , , , , ,	mm	kg	m ³													Wi	th 3	3.7 n	nt C	oun	terv	veid	ght											
General Duty (GD)	750 1100 1200 1300 1400	464 583 651 663 712	0.49 0.79 0.91 1.00 1.09																															
Heavy Duty (HD)	1300	699	1.00			T		\dashv																						\exists			\neg	
Pin Grabber Coupler	mm	kg	m³													Wi	th 3	3.2 n	nt C	oun	terv	veiç	jht											
General Duty (GD)	750 1100 1200 1300 1400	464 583 651 663 712	0.49 0.79 0.91 1.00 1.09																															
Heavy Duty (HD)	1300	699	1.00					\dashv													П											\exists	\neg	
General Duty (GD)	750 1100 1200	kg 464 583 651	m ³ 0.49 0.79 0.91													Wi	th 3	3.7 n	nt C	oun	terv	veig	ght											
Heavy Duty (HD)	1300 1400 1300	663 712 699	1.00 1.09 1.00																															
The above loads are in compliance 87% of hydraulic lifting capacity or 7 ground line with bucket curled. Capacity based on ISO 7451. Bucket weight with Long tips.	with hyd	Iraulic	excava												d				Ma Ma	axin axin	num num	ma ma ma	teri teri teri	al d al d al d	ensi ensi ensi	ity 1	800 500	O kg O kg	/m³ /m³	1				

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.

Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

	Variable Adjustable Boom 2100 mm 2400 mm 2600 mm 2														0	ne-l	Pied	ce B	00	m						Off	fset	Во	om						
Stick Length	2100 mm 2400 mm 2600 mm 2													100	mn	n	2	400	mn	1	2	600	mm	1	2	100	mn	n	2	400	mn (n			
	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	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
CW20/CW20s Buckets	mm	kg	m³													Wi	th 3	.2 n	nt C	oun	terv	veiç	ght												
Ditch Cleaning (DC)	1800 2100 600	646 738 431	1.14 1.45 0.35																																
	750 900	431 464 524	0.35																																
General Duty (GD)	1100 1200 1300	583 633 663	0.79 0.91 1.00																																
	1400 1200	693 649	1.09 0.91																																
Heavy Duty (HD)	1300 1400 mm	681 712 kg	1.00 1.09 m ³	0.91 1.00 1.09																															
Ditch Cleaning (DC)	1800 2100	646 738	1.14 1.45					I																											
	750 900	431 464 524	0.35 0.49 0.62			+																													
General Duty (GD)	1100 1200 1300	583 633 663	0.79 0.91 1.00																																
Heavy Duty (HD)	1400 1200 1300	693 649 681	1.09 0.91 1.00																																
The above loads are in compliance 87% of hydraulic lifting capacity or 7 ground line with bucket curled. Capacity based on ISO 7451. Bucket weight with Long tips.															d				Ma Ma	axim axim	ium ium	ma ma	teri teri	ial d	ens ens	sity :	180 150	0 kọ	g/m ²	3					

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.

Not recommended

M316F 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 – One-Piece Boon		Counterweight 3.2 mt												3.7 mt (3) (1) (2) (3)													
	Counterweight	(1) (2) (3														. \								-			
Undercarriage															_	· ·			(2	$\overline{}$			(3				
	Stick Length	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm		
Attachments																											
Hydraulic Hammer	H110Es, H115Es																										
Trydradio Hammer	H120Es																										
	MP318 CC & D Jaws																										
Multi-Processor	MP318 P Jaw																										
Walti T 10003301	MP318 U Jaw																										
	MP318 S Jaw																										
Crusher	P315																										
Pulverizer	P215																										
	G310B-D/R																										
Demolition and	G310B-D/R fixed CAN																										
Sorting Grapple	G313 GC																										
	G313 GC fixed CAN																										
(D-Demolition shells,	G315 GC																										
R-Recycling shells,	G315 GC fixed CAN																										
WH-Waste Handling shells)	G315B-D/R & WH																										
	G315B-D/R fixed CAN																								П		
Caren and Damalitian Char	S320B																										
Scrap and Demolition Shear	S325B																										
Compactor Plate	CVP75																										
Material Handling Grapples	•																										
Orange Peel Grapple	GSH15B 400L, 500L, 600L								1.8				1.8								1.8				1.8		
(4 or 5 Tines)	GSH15B 800L								1.8				1.2								1.8				1.2		
	GSM25 400L				1.2				1.8				1.8				1.8				1.8				1.8		
	GSM25 500L								1.8				1.8				1.2				1.8				1.8		
Orange Peel Grapple	GSM25 600L								1.8				1.8								1.8		П		1.8		
(5 Tines)	GSM25 800L								1.8				1.2								1.8				1.8		
	GSM25 1250L								0.6				0.6								0.6				0.6		
Possible match up to 1500L	GSM35 500L								1.8				1.8								1.8		П		1.8		
	GSM35 600L								1.8				1.2								1.8		П		1.2		
	GSM35 800L								1.2												1.8				1.2		
0, 1, 1, 0, 1,	CTV15 1000L								1.8				1.2								1.8				1.2		
Clamshell Grapple	CTV15 1200L								1.2												1.2				1.2		
(Transfer)	CTV15 1500L																				1.2						
	GGS25 170L to 460L	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	\Box		
	GGS25 520L	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			
	GGS25 580L					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	Г		
Clamshell Grapple	GGS35 310L, 370L	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			
(Digging)	GGS35 450L					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			
	GGS35 540L, 620L, 700L					1.8	1.8	1.8		1.8	1.8	1.8						1.8		1.8		1.8	1.8	1.8			
	GGS35 780L					1.8				1.8	1.8							1.8		1.8		1.8	1.8	1.8	Г		
Material Density	1			0.6	[T/n				rial)/			[/m³] (less dense material)/1.8 [T/m³] (standard material)													_		
(1) Dozer lowered			ttac	hme								Boom Mount															
()		_						uple										\/ \A/:-	th da	diaa	ited (00110	lor				
(2) 2 sets outriggers lowered		_				Lale	u CO	upie																r			
(3) Dozer and outrigger lowere	ea 🚾 💮	Pin-on only Over the front only									Over the front only with Pin Grabber coupler Not recommended																
		Over the front only												INOL	1600	11111116	enue	u									

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 hinge plates for CW quick coupler usage.

M316F 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 Adjusta	Counterweig	ht						3.2	mt											3.7	mt					
Undercarriage	ood.n.orwork	,		(1)			(2				(3	3)	\neg		(1	1)			(2				(3	3)	-
	Stick Leng	ath	2100 mm	$\neg \neg$	-	3100 mm	2100 mm	2400 mm	Z600 mm	3100 mm	2100 mm	T	2600 mm	3100 mm	2100 mm	2400 mm	2600 mm	3100 mm	2100 mm	2400 mm		3100 mm	2100 mm	2400 mm	Z600 mm	2100 2222
Attachments	Out Long	Je.,	• •	• •		,,				,,,				,,				,,		• • •		•			<u> </u>	Ť
7.ttuoiiiioitto	H110Es																									Τ
Hydraulic Hammer	H115Es																									_
,	H120Es																									Τ
Demolition and	G310B-D/R																									_
Sorting Grapple	G310B-D/R fixed CAN																									_
(D-Demolition shells,	G313 GC																									_
R-Recycling shells,	G313 GC fixed CAN																									_
WH-Waste Handling shells)	G315 GC, G315B-D/R, G315B-WH			\neg																						_
	S320B																									
Scrap and Demolition Shear	S325B																									
Compactor Plate	CVP75																									ſ
Material Handling Grapples										_																_
Orange Peel Grapple	GSH15B 400L & 500L									1.8				1.8								1.8				1
(4 or 5 Tines)	GSH15B 600L & 800L									1.8				1.2								1.8				1
	GSM25 400L									1.8				1.8				1.2				1.8				1
	GSM25 500L & 600L									1.8				1.8								1.8				1
	GSM25 800L									1.8				1.2								1.8				1
	GSM25 1250L									1.2				0.6								0.6				0
Orange Peel Grapple	GSM35 500L									1.8				1.2								1.8				1
Orange Peel Grapple (5 Tines)	GSM35 600L									1.8				1.2								1.8				1
	GSM35 800L									1.2												1.2				Т
	GSM35 1000L																					1.2				_
	GSM35 1500L	\neg		_																		0.6				_
	GGS25 170L, 220L, 280L	-	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	_
	GGS25 340L, 400L		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		_
	GGS25 460L	_	1.8				1.8				1.8				1.8			1.8		1.8			1.8			Τ
	GGS25 520L					1.8	1.8			1.8		1.8		1.8				1.8	1.8	1.8			1.8			_
Clamshell Grapple	GGS25 580L					_	1.8			1.8		1.8						1.8	1.8	1.8			1.8	1.8		_
(Digging)	GGS35 310L		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	_
. 55 5/	GGS35 370L	_	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			_
	GGS35 450L					_	1.8			1.8	1.8	1.8		1.8				1.8		1.8			1.8	_		Τ
	GGS35 540L, 620L, 700L	\neg		_		1.8	1.8			1.8		1.8						1.8	1.8	1.8			1.8			_
	GGS35 780L						1.8			1.8	1.8							1.8		1.8			1.8			Τ
Clamshell Grapple	CTV15 1000L									1.2				1.2								1.8				1
(Transfer)	CTV15 1200L	\dashv	+							1.2												1.2				
Material Density	1	\dashv).6 [T	/m³]	(light	t mat)/1.2	[T/m ²	l (les	s de	nse i	nate	rial)/	1.8 [T	/m³l	(star	dard		erial)		_
Pin Grabber Coupler	Cat-PG	\dashv																								_
	CW-20	\dashv					_										. ,		 .							
Dedicated Quick Coupler	CW-20s	\dashv					7	hes	e cou	ıpler	s are	avai	ilable	tor t	ne N	1316F	- (str	aight	/link	age s	tick)					
	CWAC-40 (autoconnect)	\dashv																								
(1) Dozer lowered		\#**	hma	n+:		noto	h							Baa.	m N	//	·+									_
, , , , , , , , , , , , , , , , , , , ,	-	Attachment is a match Pin-on or dedicated CW coupler Pin-on only Over the front only with dedicated CW coupler Over the front only with Pin Grabber coupler																								
(2) 2 sets outriggers lowered																										
(3) Dozer and outrigger lowere																										
		ווטעכ	uie I	ווטוו	נ טוו	ıy								IVUL	160	UIIIII	ICIIC	ıcu								

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 hinge plates for CW quick coupler usage.

Lift Capacities – Variable Adjustable Boom

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

Load at maximum reach (stick nose/bucket pin) Load over front Load over rear Load over side T Load point height 3000 mm 4500 mm 6000 mm 7500 mm Medium Stick mm Undercarriage configuration 2400 mm 4750 4300 3750 *5350 Lower rear dozer down *5350 4800 *3850 *3850 3800 Lower f. dozer & r. stabilizer down *5350 *5350 *3850 *3850 *5350 *3850 7500 mm 5130 Lower 2 sets of stabilizers down *5350 *5350 *5350 *3850 *3850 *3850 Lower rear dozer up (HD - parallel dozer) *5350 5050 4400 *3850 *3850 3450 *5350 *5350 °5350 *3850 *3850 *3850 Lower f. dozer & r. stabilizer down (HD - parallel dozer) Lower rear dozer up *5350 4750 4300 4350 2950 2500 *5350 *5350 4800 4350 4850 3000 *3300 *3300 2550 Lower rear dozer down *5350 Lower f. dozer & r. stabilizer down *5350 *4850 *4850 *3300 *3300 *3300 *5350 4500 6000 mm 6500 Lower 2 sets of stabilizers down *5350 *5350 *5350 *4850 *4850 *4850 *3300 *3300 *3300 Lower rear dozer up (HD - parallel dozer) *5350 5050 4400 4500 3150 2750 *3300 2700 2350 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *4850 *4850 *5350 *5350 *5350 4600 *3300 *3300 *6050 4500 2600 3100 2050 2900 *3100 Lower rear dozer down *6050 *6050 4600 4250 *4950 3100 2100 *6050 *4950 Lower f. dozer & r. stabilizer down *6050 *6050 *4950 4400 *3100 *3100 *3100 4500 mm 7290 Lower 2 sets of stabilizers down *6050 *6050 *6050 *4950 *4950 *4950 *3100 *3100 *3100 Lower rear dozer up (HD - parallel dozer) *6050 4850 4200 4450 3050 2650 *3100 2200 1900 Lower f. dozer & r. stabilizer down (HD – parallel dozer) *6050 *6050 *6050 *4950 *4950 4550 *3100 *3100 *3100 Lower rear dozer up 4150 3750 4100 2700 2900 2800 1800 Lower rear dozer down 6400 *7100 4200 4100 5250 2750 2900 4250 1950 2750 *3100 1850 Lower f. dozer & r. stabilizer down *7100 *7100 *5250 *5250 *4250 *4250 *3100 2900 6650 4250 3000 *3100 3000 mm 7710 *7100 *5250 *3100 Lower 2 sets of stabilizers down *7100 *7100 *5250 5100 *4250 *4250 3600 *3100 *3100 Lower rear dozer up (HD - parallel dozer) 6650 4450 3850 4250 2900 2500 3050 2050 1750 2900 1950 1700 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *7100 *7100 6800 *5250 *5250 4400 *4250 *4250 3100 *3100 *3100 2950 Lower rear dozer up 6050 3800 3400 3950 2550 2300 2850 1850 1650 2700 1750 1550 Lower rear dozer down 6000 *7850 3900 3950 *5700 2850 *3200 1750 2600 4150 1900 2650 Lower f. dozer & r. stabilizer down *7850 *7850 *5700 4100 *4450 4300 *3200 *3200 2800 6250 *5700 2950 1500 mm 7810 Lower 2 sets of stabilizers down *7850 *7850 *5700 *4450 *4450 *3200 7700 *5700 4950 3550 *3200 *3200 Lower rear dozer up (HD - parallel dozer) 6250 4100 3500 4100 2750 2350 2950 2000 1700 2800 1850 1600 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *7850 *7850 6450 *5700 *5700 4200 *4450 *4450 3050 *3200 *3200 2850 2450 2800 5850 3650 3250 3850 2200 1800 1600 2750 1750 1600 5800 *7750 3700 3800 *5650 2500 2800 4100 1850 2750 *3500 1800 Lower f. dozer & r. stabilizer down *7750 *7750 *5650 *5650 4000 *4200 *4200 2900 *3500 *3500 2850 6050 7600 *5650 *4200 *4200 3450 Lower 2 sets of stabilizers down *7750 *7750 7500 *5650 4800 3500 *3500 *3500 Lower rear dozer up (HD - parallel dozer) 6050 3950 3350 4000 2650 2250 2900 1950 1650 2850 1900 1650 Lower f. dozer & r. stabilizer down (HD – parallel dozer) *7750 *7750 6250 *5650 *5650 4100 *4200 *4200 *3550 *3550 2950 3000 *7050 1750 Lower rear dozer up 6800 5900 5800 3600 3200 3800 2450 2150 1950 Lower rear dozer down *6950 *3750 Lower f. dozer & r. stabilizer down *7050 *7050 *7050 *6950 *6950 6050 *5100 3950 *3750 *3750 3150 *5100 7060 -1500 mm *5100 *7050 *7050 *7050 *6950 *5100 *3750 *3750 *3750 Lower 2 sets of stabilizers down *6950 *6950 4800 Lower rear dozer up (HD - parallel dozer) *7100 *7100 6050 6050 3900 3300 3950 2600 2250 3200 2150 1850 Lower f. dozer & r. stabilizer down (HD – parallel dozer) *7100 *7100 *7100 *6900 *6900 6200 *5100 *5100 4050 *3750 *3750 3250 Lower rear dozer up *5200 3700 3300 *3350 2500 2250 *3350 *5200 *5200 3750 *3350 2550 Lower f. dozer & r. stabilizer down *5200 *5200 *5200 *3350 *3350 *3350 -3000 mm *5200 *3350 Lower 2 sets of stabilizers down *5200 *5200 *3350 *3350 Lower rear dozer up (HD - parallel dozer) *5200 4000 3400 Lower f. dozer & r. stabilizer down (HD - parallel dozer

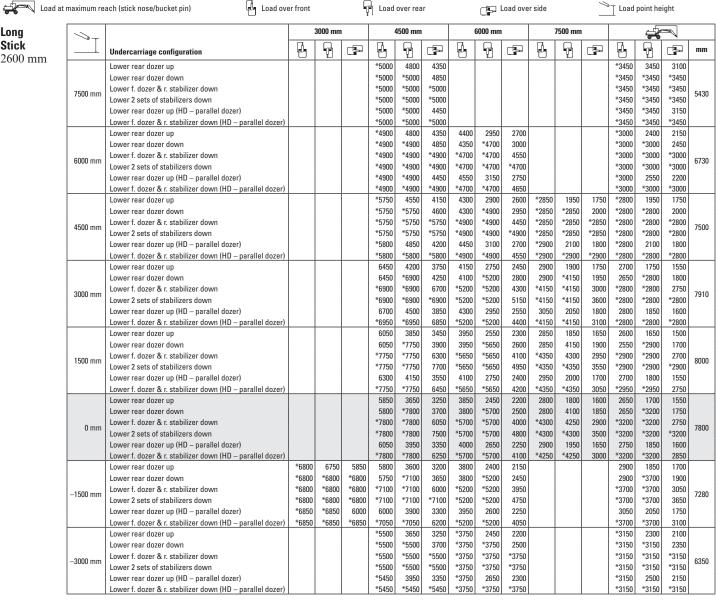
Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on 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.

^{*}Limited by hydraulic rather than tipping load.

Lift Capacities – Variable Adjustable Boom

Long Stick

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

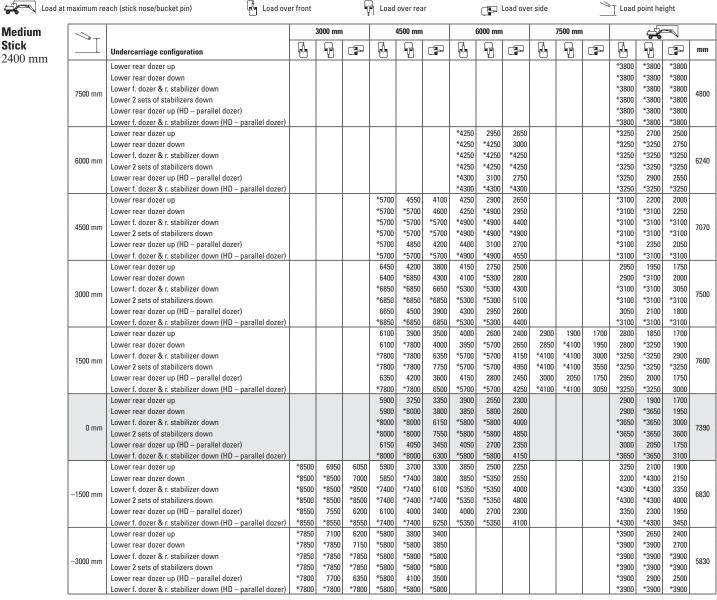


^{*}Limited by hydraulic rather than tipping load.

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

Lift Capacities – One-Piece Boom

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



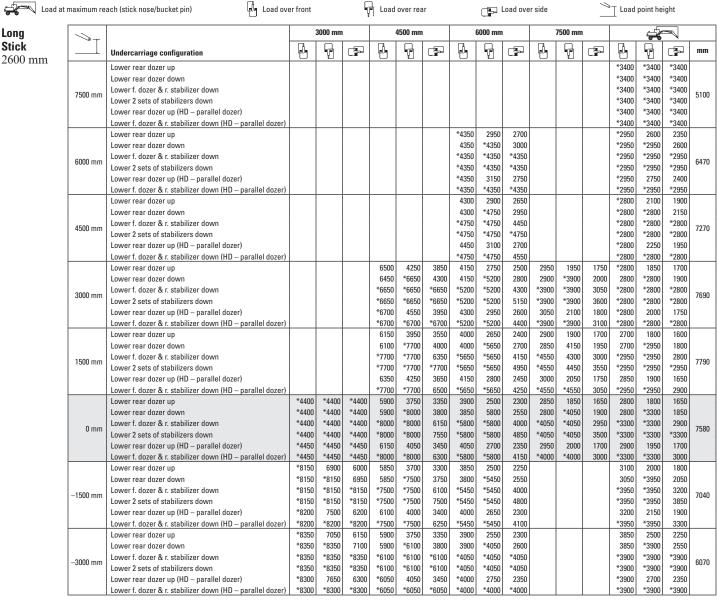
^{*}Limited by hydraulic rather than tipping load.

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.

Lift Capacities – One-Piece Boom

Long

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



^{*}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

Lift Capacities – Offset Boom

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

Load at maximum reach (stick nose/bucket pin) Load over front Load over rear Load over side T Load point height 3000 mm 4500 mm 6000 mm 7500 mm Medium Stick mm Undercarriage configuration 2400 mm 4750 4300 *3500 *5250 *3500 Lower rear dozer down *5250 4800 *3500 *3500 Lower f. dozer & r. stabilizer down *5250 *3500 *5250 *5250 *3500 *3500 7500 mm 5160 Lower 2 sets of stabilizers down *5250 *5250 *5250 *3500 *3500 *3500 Lower rear dozer up (HD - parallel dozer) *5250 5050 4400 *3450 *3450 3350 *5250 *5250 *5250 *3450 *3450 *3450 Lower f. dozer & r. stabilizer down (HD - parallel dozer) Lower rear dozer up *5300 4750 4300 4300 2850 2400 2150 *5300 *5300 4800 4300 *4700 *2950 *2950 2450 Lower rear dozer down 2900 *5300 Lower f. dozer & r. stabilizer down *5300 *4700 *4700 *2950 *2950 *2950 *5300 4450 6000 mm 6520 Lower 2 sets of stabilizers down *5300 *5300 *5300 *4700 *4700 *4700 *2950 *2950 *2950 Lower rear dozer up (HD - parallel dozer) *5300 5100 4400 4450 3050 2650 *2950 2550 2200 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *4700 *4700 *5300 *5300 *5300 4550 *2950 *2950 *2950 *5900 4500 4050 4200 2500 *2750 *5900 *5900 *2750 *2750 Lower rear dozer down 4550 4200 *4850 2800 1950 *5900 *4850 *2750 *2750 Lower f. dozer & r. stabilizer down *5900 *5900 *4850 4350 *2750 4500 mm 7310 Lower 2 sets of stabilizers down *5900 *5900 *5900 *4850 *4850 *4850 *2750 *2750 *2750 Lower rear dozer up (HD - parallel dozer) *5900 4800 4100 4350 3000 2550 *2750 2050 1750 Lower f. dozer & r. stabilizer down (HD – parallel dozer) *5900 *5900 *5900 *4850 *4850 4500 *2750 *2750 *2750 Lower rear dozer up 6300 4000 3600 4000 2350 2800 1650 1500 Lower rear dozer down 6300 *6850 4050 4000 *5100 2650 2800 *4150 1800 2650 *2750 1700 Lower f. dozer & r. stabilizer down *6850 *6850 6550 *5100 *5100 *4150 *4150 *2750 *2750 *2750 4150 2900 3000 mm 7730 *5100 Lower 2 sets of stabilizers down *6850 *6850 *6850 *5100 5000 *4150 *4150 3500 *2750 *2750 *2750 Lower rear dozer up (HD - parallel dozer) 6500 4300 3650 4150 2800 2400 2900 1900 1650 *2750 1800 1550 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *6850 *6850 6700 *5150 *5150 4250 *4150 *4150 3000 *2750 *2750 *2750 Lower rear dozer up 5800 3600 3150 3800 2400 2150 2700 1700 1500 2550 1600 1400 Lower rear dozer down 5800 *7500 3650 3800 *5450 *2850 1600 2450 2700 4050 1750 2550 Lower f. dozer & r. stabilizer down *7500 *5450 *5450 *4250 4200 *2850 *2850 2650 *7500 6050 3950 2800 1500 mm 7830 *5450 Lower 2 sets of stabilizers down *7500 *7500 *4250 *4250 7500 *5450 4800 3400 *2850 *2850 *2850 Lower rear dozer up (HD - parallel dozer) 6050 3900 3250 3950 2600 2200 2850 1850 1550 2650 1700 1450 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *7500 *7500 6200 *5450 *5450 4050 *4250 *4250 2900 *2850 *2850 2700 3350 2250 2650 1450 Lower rear dozer up 5550 2950 3650 2000 1650 1450 2600 1600 5550 *7400 3400 3650 *5400 2300 2650 *3950 1700 2600 *3100 1650 Lower f. dozer & r. stabilizer down *7400 *7400 5800 *5400 *5400 3800 *3950 *3950 *3100 *3100 2700 2750 7620 *7400 *7400 *5400 *3100 Lower 2 sets of stabilizers down 7200 *5400 4650 *3950 *3950 3350 *3100 *3100 Lower rear dozer up (HD - parallel dozer) 5800 3650 3050 3800 2450 2050 2800 1800 1500 2700 1750 1500 Lower f. dozer & r. stabilizer down (HD - parallel dozer) *7400 *7400 5950 *5400 *5400 3900 *3950 *3100 *3100 2800 *3950 *7250 Lower rear dozer up 6300 5550 3300 2900 3600 2200 1950 2900 1800 1600 Lower rear dozer down *6550 2900 *3500 Lower f. dozer & r. stabilizer down *7250 *7250 *7250 *6550 *6550 5750 *4800 *4800 3750 *3500 *3500 3000 7080 -1500 mm *4800 *7250 *7250 *7250 *6550 *6550 *4800 *3500 *3500 *3500 Lower 2 sets of stabilizers down *6550 4600 3750 1650 Lower rear dozer up (HD - parallel dozer) *7300 6900 5550 5750 3600 3000 2400 2050 3050 1950 Lower f. dozer & r. stabilizer down (HD – parallel dozer) *7300 *7300 *7300 *6550 *6550 5950 *4800 *4800 3850 *3500 *3500 3100 Lower rear dozer up *4850 3400 3000 *3100 2300 2050 *4850 *4850 3500 *3100 *3100 2350 *4850 Lower f. dozer & r. stabilizer down *4850 *4850 *3100 *3100 *3100 -3000 mm *4850 *4850 *3100 Lower 2 sets of stabilizers down *4850 *3100 *3100 Lower rear dozer up (HD - parallel dozer) *4850 3700 3100 Lower f. dozer & r. stabilizer down (HD - parallel dozer)

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.

^{*}Limited by hydraulic rather than tipping load.

M316F 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
- Signal/warning horn
- Electrical refueling pump

ENGINE

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

HYDRAULICS

- · Adjustable hydraulic sensitivity
- All Cat XTTM-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 an attachment
- Programmable flow and pressure for up to 10 attachments selection via monitor
- Quick coupler circuit and lines for hydraulic quick coupler (both Cat Pin Grabber and dedicated/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
- Safety lever, integrated into the left console
- Skylight, laminated glass
- Sealed cab with positive filtered ventilation
- · Sliding door windows
- Steering column, adjustable height and angle
- Storage area suitable for a lunch box
- Sunshade for windshield and skylight

UNDERCARRIAGE

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

OTHER EQUIPMENT

- Auto-lube, centralized greasing (implement and swing gear)
- Automatic swing brake
- Counterweight, 3200 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 object guards

M316F Optional Equipment

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, 5050 mm
 - -VA boom (two piece), 5200 mm
 - -Offset boom, 5200 mm
- · Sticks
 - -2100 mm
 - -2400 mm
 - -2600 mm
 - -3100 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 blade only (radial or parallel)
- Front blade (radial or parallel)/ 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, 3700 kg
- Fenders, front and rear
- Ride Control
- Tires (see pg. 22)
- Attachments (see pg. 25-28)

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