

# 320C, 320C L 320C LN

Hydraulic Excavators



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#### Cat® 3066 ATAAC diesel engine

Gross power	110 kW/147 hp
Net power	103 kW/138 hp
Operating weight range	20 800 to 23 000 kg
Travel speed	5.5 km/h
Drawbar pull	196 kN

## 320C, 320C L and 320C LN Hydraulic Excavators

*The C Series incorporates innovations for improved performance and versatility.*

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### Engine and Hydraulics

- ✓ Cat 3066 ATAAC engine and hydraulics give the 320C, 320C L and 320C LN exceptional power, efficiency and controllability unmatched in the industry. The engine is built for performance, durability, excellent fuel economy, low sound levels and it meets the European Union emission regulations. **pg. 4**

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### Serviceability

Longer service intervals and easier maintenance result in better machine availability and lower owning and operating costs. **pg. 5**

*Increased work-tool options, improved cycle times, and ease of operation lead to increased productivity and lower operating costs.*

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### SmartBoom™

- Easier and smoother operation.
- Faster cycle times in rock scraping and truck loading.
- Optimum hammering for effective productivity. **pg. 6**

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### Ease of Operation

- ✓ Compact Multipro monitor enhances viewing while displaying a variety of easy to read and understand language-based information. Designed for simple, easy operation, the 320C, 320C L and 320C LN allow the operator to focus on production. **pg. 7**



✓ *New features*

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### Operator Comfort

- ✓ Redesigned interior layout maximizes operator space, provides exceptional comfort, and reduces operator fatigue. **pg. 8-9**

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### Durability

Rugged Caterpillar® undercarriage design and proven structural manufacturing techniques assure outstanding durability in the toughest applications. **pg. 10**

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### Work Tools

- ✓ Ex-factory available Buckets, Multi-processors, Sorting and Demolition Grapples, Hammers and Quick Couplers provide a total solution package to the end-user. **pg. 13**

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### Buckets and Teeth

A wide variety of bucket types with aggressive designs take advantage of the high digging forces to improve productivity. **pg. 12**

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### Booms and Sticks

Built for good performance and long service life, Caterpillar booms and sticks are large, welded box-section structures with thick, multi-plate fabrications that resist high stress. Designed-in flexibility to help bring higher production and efficiency to all jobs. **pg. 11**

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### Complete Customer Service

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement.



## Engine and Hydraulics

*Fast cycle times and high bucket and stick forces combine to maximize your productivity in any job.*



**Cat 3066 ATAAC Engine.** Six cylinder turbocharged engine built for power, reliability, economy and low emissions will keep the machine up and running.

### **Automatic Engine Control.**

Automatic Engine Control (AEC) with convenient one-touch command. Three-stage control maximizes fuel efficiency and reduces sound levels.

- First stage AEC: Selected when the AEC indicator on the Multipro panel is "OFF". If a no-load or light-load condition continues for more than 3 seconds, the AEC reduces engine speed by 100 rpm.

- Second stage AEC: Selected when the AEC indicator on the Multipro panel is "ON". If a no-load or light-load condition continues for more than 3 seconds, the AEC reduces engine speed to 1300 rpm.
- Third stage AEC: Pressing the switch on the top of the right hand control joystick when the levers are in neutral position, reduces the engine speed to 1020 rpm. If the switch is pressed again or if a control lever is moved, the engine speed returns to its normal level.

**Easy to operate hydraulics.** Cat hydraulics give the 320C exceptional efficiency and controllability unmatched in the industry for consistently high performance in all applications. The 320C easy-to-use hydraulic system provides automatic infinite priority selections between swing and boom, maximizing performance and simplifying operation. Boom and swing priority is adjusted automatically depending on joystick input, eliminating the need to select the work-mode. This is a unique feature in the market.

**Auxiliary Hydraulic Circuits.** The new auxiliary hydraulic circuits are electronically controlled, allowing essential parameters for frequently used hydro-mechanical worktools to be pre-recorded. This on-board electro-hydraulic system eliminates the need for manual readjustments to the auxiliary hydraulics, each time a different tool is used.

### **Hydraulic Pumps Cross Sensing System.**

It improves productivity with faster implement speeds and quicker, stronger pivot turns

**Hydraulic Cylinder Snubbers.** The hydraulic cylinder snubbers at rod end of boom cylinders and both ends of stick cylinders cushion shocks, reduce sound and increase cylinder life, keeping the machine working longer.

**Controllability.** The hydraulic system offers precise control to the 320C, reducing operator fatigue, improving operator effectiveness and efficiency, which ultimately translates into enhanced performance.

### **Boom and Stick Regeneration Circuits.**

Boom and stick regeneration circuits increase efficiency and reduce cycle times for higher productivity and lower operating costs.

**SmartBoom™.** The unique Cat SmartBoom™ attachment significantly enhances operator efficiency in applications including rock scraping, finishing work, hammer and truck loading applications.

## Maximum uptime – Service and Maintenance

*Extended Service Intervals and Easy access reduce operating costs.*

**Extended Service Interval.** 320C service and maintenance intervals have been extended to reduce machine service time and increase machine availability.

**Air Filter Compartment.** The air filter features a double-element construction for superior cleaning efficiency. When the air cleaner plugs, a warning is displayed on the Multipro screen inside the cab.

**Ground Level Service.** The design and layout of the 320C was made with the service technician in mind. Most service locations are easily accessible from ground level allowing critical maintenance to get done quickly and efficiently.

**Pump Compartment.** A service door on the right side of the upper structure allows ground-level access to the pump and pilot filter.

**Diagnostics and Monitoring.** The 320C is equipped with S•O•S<sup>SM</sup> sampling ports and hydraulic test ports for the hydraulic system, engine oil and for coolant. A test connection for the Electronic Technician (ET) is located in the air filter compartment.

**Anti-Skid “Punched Star” Plates.** Anti-skid punched-star plate covers top of storage box and upper structure to prevent slipping during maintenance. The plates can be removed for cleaning.

**Capsule Filter.** The hydraulic return filter, a capsule filter, is situated outside the hydraulic tank. Removing the filter allows shut-off valves to close the hydraulic circuit preventing contaminants from entering the system when the hydraulic oil filter is changed. The capsule filter also keeps the operation clean.

**Engine Inspection.** Engine can be accessed from the upper structure or from under the machine. The engine and pump compartment are separated by a steel fire wall.

**Handrails and Steps.** Large handrails and steps assist operator in climbing on and off machine.



**Grease Lubricated Track.** Grease lubricated seals protect the track link and deliver long track link pin and bushing inner wear life.

**Fan Guard.** Engine radiator fan is completely enclosed by fine wire mesh, reducing the risk of an accident.

**Greasing Points.** A concentrated remote greasing block on the boom delivers grease to hard-to-reach locations.

**Bearings.** New boom and stick standard bearings only need greasing every 1000 hours.

**Caterpillar Product Link system attachment.** It includes a transceiver module (on-board the machine), office application PC software, and a satellite communications network to track machine hours, location, and warnings. Product Link simplifies maintenance scheduling, fleet management, unauthorized machine usage or movement, and product problem event tracking and diagnosis (PL-201).

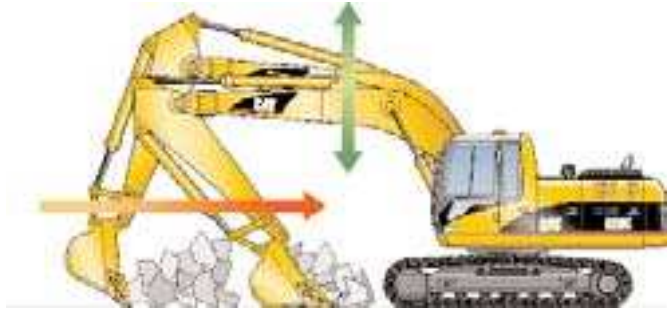


### **Side by Side Cooler and Radiator.**

The left rear service door allows easy access to the engine radiator and the oil cooler. In order to ease cleaning, these radiators are located side by side. A reserve tank and drain cock are attached to the radiator for simplified maintenance.

## SmartBoom™

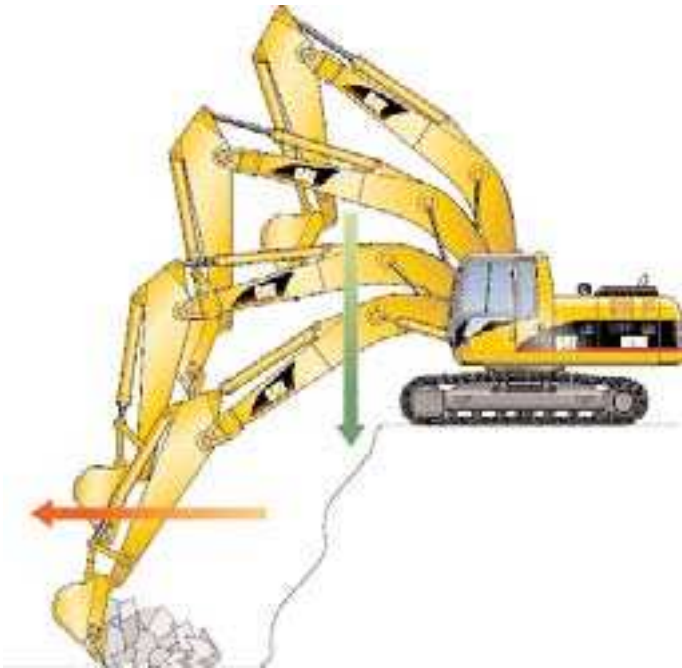
*Reduces stress and vibrations transmitted to the machine and provides a more comfortable environment ensuring less operator fatigue.*



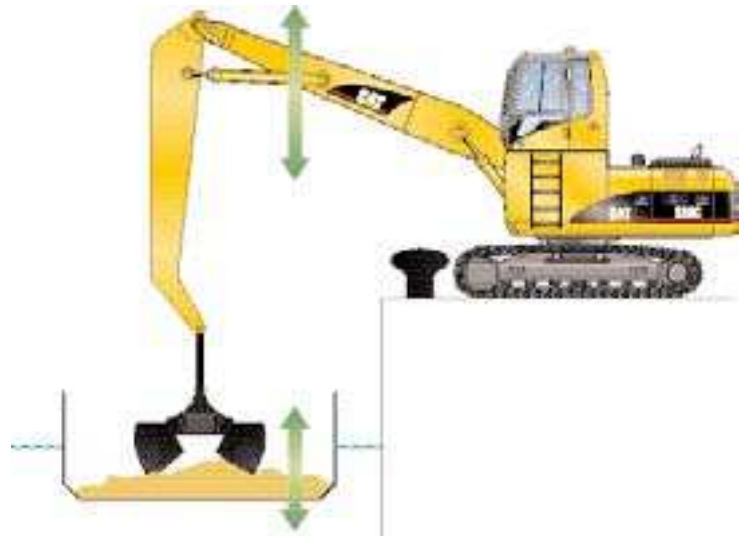
**Rock Scraping.** Scraping rock and finishing work is easy and fast. SmartBoom™ simplifies the task and allows the operator to fully concentrate on stick and bucket, while boom freely goes up and down without using pump flow.



**Hammer Work.** It has never been this productive and operator-friendly. 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 are applicable when using vibratory plates.



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



**Material Handling.** It is more efficient and productive due to faster return cycles. Unloading barges is easier because SmartBoom™ avoids excessive force being put on the floor of the barge allowing the operator to fully concentrate on production.

## Ease of Operation

*Designed for simple, easy operation, the 320C, 320C L and 320C LN allow the operator to focus on production.*



**Multipro.** New, compact Multipro enhances viewing while displaying a variety of easy to read and understand language-based information.

**Pre-start Multipro system.** The Pre-start Multipro system alerts the operator in case there is low coolant, engine oil and hydraulic oil levels, prior to starting the engine. When the engine key remains in the "ON" position for more than 2 seconds, warning indicators are displayed in language, if actual fluid levels are lower than required.

### **Filter and Oil Change warnings.**

The filter and oil change warnings are displayed when the number of hours used reaches the maintenance interval.

### **Integrated Tool Control system.**

The integrated Tool Control system allows the operator to quickly select the proper set of flow and pressure parameters out of five pre-set combinations, eliminating the need to re-set these hydraulic parameters each time a tool is changed. Specific flow and pressure can be programmed easily. The one way/two way hydraulic functions are also programmable from the Tool Control system. Each of the five programmed tools can even be given a specific name chosen by the operator.

**Languages.** Twenty different languages are available on the 320C. The machine can be ordered with up to seven language combinations at a time. A pre-set combination can be overwritten by another language combination with Electronic Technician.

- English, French, German, Italian, Portuguese, Spanish, Japanese
- English, Danish, Finnish, Icelandic, Norwegian, Swedish
- English, Dutch/Flemish, French, German, Italian
- English, Czech, German, Greek, Russian, Turkish
- English, Chinese (simplified), Indonesian, Thai

The individual language can be selected out of the pre-set combination from the Multipro.

## All-day operator comfort

*The 320C, 320C L and 320C LN interior layout maximizes operator space, provides exceptional comfort, and reduces operator fatigue.*







**Interior Operator Station.** The 320C operator work station is quiet with ergonomic control placement and convenient adjustments, low lever and pedal effort, ergonomic seat design and highly efficient ventilation.

**Seat.** A new seat with a two-tone color offers two types of cushion – soft and firm – for operator comfort. The reclining knob is located at the right side of the seat for easier reclining adjustment.

**Console.** Designed for simplicity and functionality. Both consoles have attached adjustable armrests.

**Automatic Climate Control.** Fully automatic climate control adjusts temperature and flow and determines which air outlet is best in each situation.

**Greater control convenience.** Each of the controls is positioned within easy reach of the operator. Joysticks with sliding switches control all implements and swing functions. The industry-unique sliding switches provide modulated control for hydro-mechanical tools and are designed to increase operator comfort and reduce operator fatigue when working extensively with crushers or shears.

**Cab Mounts.** The cab shell is attached to the frame with viscous mounts, reducing vibration and sound.



**Skylight.** A unique large polycarbonate skylight provides very good upward visibility, especially usefull in above ground applications.

**Viewing area.** Excellent viewing area through wide windows. The front window is one piece for undistorted view in utility applications (two pieces optional).

**Wipers.** Designed to maximize visibility in poor weather conditions. The parallel wiper system covers almost the complete front window without leaving unwiped areas in the immediate line of sight of the operator.

**Large storage shelf.** Located behind the seat provides sufficient room for a cooling box. An optional lunch box cover is available to close off the storage space if preferred.

## Durability

*320C, 320C L and 320C LN structural components and undercarriage are the backbone of the machine's durability.*



**Structures.** Proven structural manufacturing techniques, assure outstanding durability and service life from these important components.

**Carbody Design.** X-shaped, box-section carbody provides excellent resistance to torsional bending.

**Track Roller Frames.** Robot-welded track roller frames are press-formed, pentagonal units to deliver exceptional strength and service life.

**Main Frame.** Rugged main frame is designed for maximum durability and efficient use of materials.

**Undercarriage.** Durable Cat undercarriage absorbs stresses and provides excellent stability.

**Robotic Welding.** Precision robotic welding ensures quality, increases rigidity, reduces internal stresses and enhances durability.

**Rollers and Idlers.** Heavy-duty sealed and lubricated track rollers, carrier rollers and idlers provide excellent service life, to keep the machine in the field longer.

**Grease-lubricated Track (GLT).** It delivers longer track link and inner bushing life. GLT also reduces travel noise and reduces potential for frozen track joints.

**Undercarriage Options.** Three undercarriage options, standard (STD), long (L) and long narrow (LN) allow you to choose the best machine for your application and business needs.

**Standard Undercarriage.** The standard undercarriage is well suited for applications that require frequent repositioning of the machine, have restricted working space, uneven or rocky terrain.

**Long Undercarriage.** The long undercarriage (L) maximizes stability and lift capacity. A long, wide and sturdy undercarriage offers a very stable work platform.

**Long Narrow Undercarriage.** The long and narrow undercarriage (LN) provides the best choice when ease of transport is important while maintaining excellent lift capacity.

## Booms and Sticks

*Designed-in flexibility to help bring higher production and efficiency to all jobs.*



**Booms and Sticks.** Built for performance and long service life, Caterpillar booms and sticks are large, welded, box-section structures with thick, multi-plate fabrications in high-stress areas.

**Option.** The choice of three booms and seven sticks means 320C offers a large combination of reach and digging forces for optimum versatility.

**Reach Boom.** The reach boom (5680 mm) features an optimum design that maximizes digging envelopes with four stick choices.

- **R2.9B Stick.** The 2900 mm stick gives the largest working envelope with medium B-sized buckets.
- **R2.9B Heavy Duty Stick.** The heavy duty stick provides additional strength recommended for demolition applications. Its design includes an additional internal baffle to support mechanical shears/crushers, extra-hardened bosses and yet thicker plates where necessary.

- **R2.5B Stick.** The 2500 mm stick uses the high capacity buckets and is best suited for trenching, excavation and general construction applications.
- **R1.9C Stick.** The 1900 mm stick uses higher capacity C family buckets for high production applications.

**Mass Excavation Boom.** The mass excavation boom (5200 mm) maximizes productivity. The ME version offers increased forces to allow use of larger buckets and offers added durability for more severe applications.

- **M1.9C and M2.4C Sticks.**  
The 1900 mm and 2400 mm sticks have been specifically designed for large earth moving applications and use C-sized buckets.
- **M2.9B Stick.** The 2900 mm stick provides the largest working envelope best suited to demolition or finishing work.

### **Variable Adjustable (VA) Boom.**

The variable geometry boom offers superb flexibility and versatility in the working envelope. Boom position can be adjusted from 90° when fully retracted to 165° when fully extended. With full extension, the working range gives both maximum dig depth, reach and working height. Equally, when the VA boom is retracted, it can work closer to its tracks, increase lifting capacity and work in confined areas. All hydraulic adjustments to the VA boom angle can be made from the cab during a work cycle for true versatility.

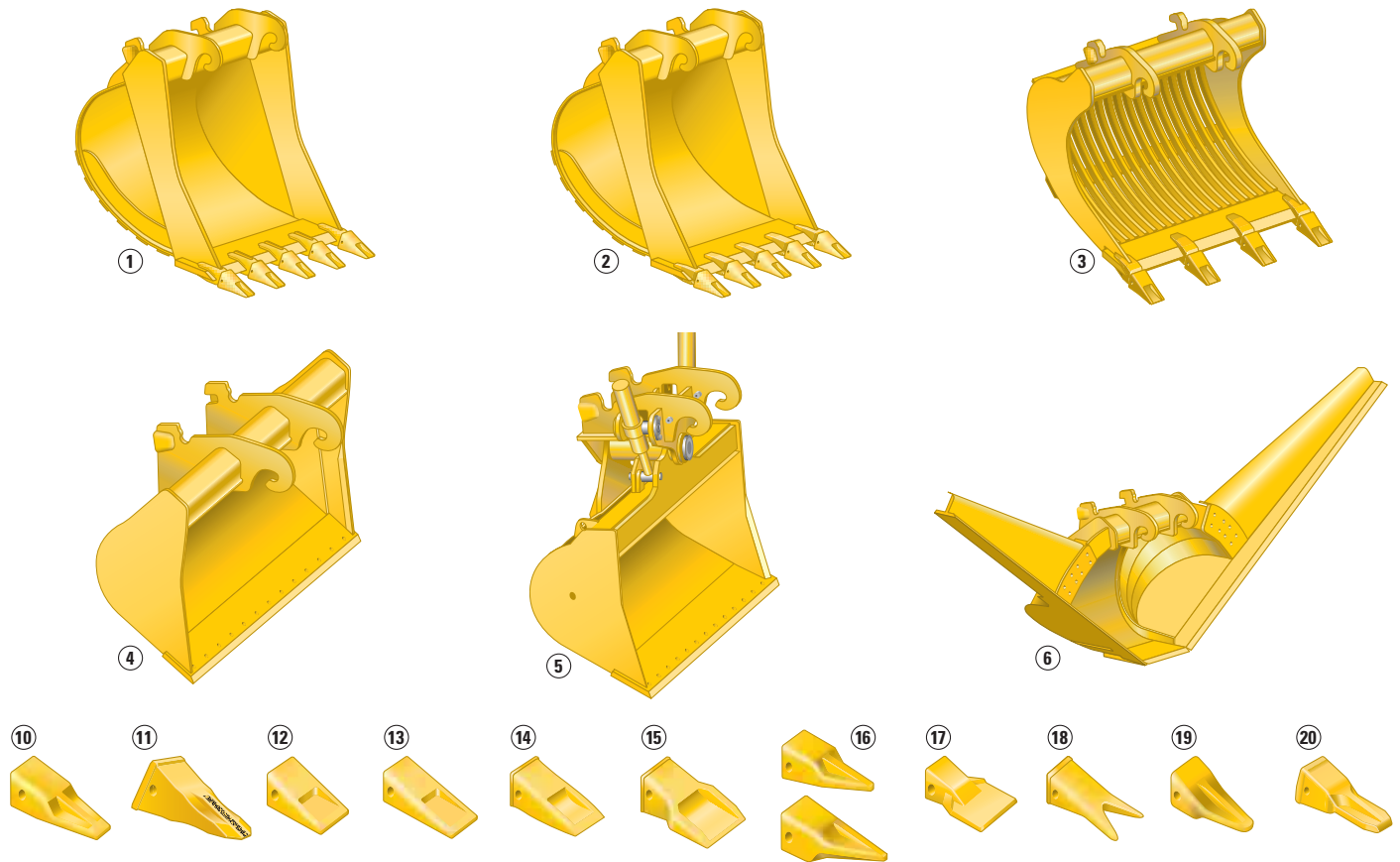
### ■ **M1.9C and M2.4C Sticks.**

The 2400 mm and 1900 mm sticks provide the necessary strength in digging, lifting and hammering applications with the VA body.

- **M2.9B Stick.** The 2900 mm stick provides the largest working envelope best suited to demolition or finishing work.

## Buckets and Teeth

A wide variety of buckets help optimize machine performance. Purpose designed and built to Caterpillar's high durability standards.



**1 Excavation Bucket.** Digs and loads soft to medium materials such as clay and earth. Features weld on tip adapters, hardened cutting edge and side bars.

**2 Extreme Excavation Bucket.** Digs and loads compact/abrasive materials like earth/rock, sand/clay, sand/gravel, coal, chalk and low abrasion ores. Features abrasion resistant steel for all wear parts.

**3 Skeleton Bucket.** For soft and moist soils and for applications where separation of materials, e.g., branches, peat moss, is required and for breaking up asphalt.

**Heavy Duty Skeleton Bucket.** As standard skeleton bucket, but for more demanding applications such as sorting rock from sand or gravel on demolition sites.

**4 Ditch Cleaning Bucket.** Wide, light bucket used mainly with long reach configurations to clean waterbeds and banks.

**5 Tiltable Ditch Cleaning Bucket.** Wide, light hydraulically tiltable bucket for ditch cleaning and slope finishing applications.

**6 Trapezoidal Bucket.** To prepare and maintain small irrigation ditches. Features angled sides to shape ditch banks in one operation. Optionally available with mechanically adjustable side angles.

**Pin-on version and Quick Couplers.** All Cat buckets are available in both quick coupler and pin-on version.

### Tip selection

- 10** Penetration
- 11** Penetration Long Life
- 12** Short
- 13** Long
- 14** Heavy Duty Long
- 15** Heavy Duty Abrasion
- 16** Sharp / Corner Sharp
- 17** Wide
- 18** Twin Sharp
- 19** Long Sharp
- 20** Penetration Plus

## Tool Control System, Quick Couplers and Work-Tools

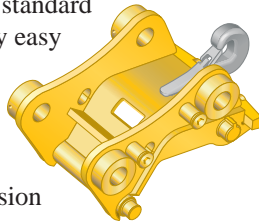
*User-friendly, integrated electro-hydraulics make changing tools easy and quick and allow the operator to focus on efficient work.*

**Tool Control.** Five hydraulic pump flow and pressure settings can be preset on the Multipro, eliminating the need to adjust the hydraulics each time a tool is changed. Selecting the proper setting from the Multipro's menu instantly provides the operator with the correct amount of flow and pressure for the tool. The unique Cat proportional sliding switches provide modulation to the tool and make precision work easy.

**Quick Couplers.** Caterpillar Quick Couplers enable the operator to simply release one work tool and pick up another. Your hydraulic excavator becomes highly versatile. To suit your business and application needs, Caterpillar offers two different types of Quick Couplers.

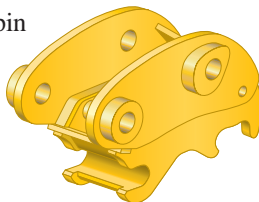
**CW-Series Dedicated Quick Coupler.** The dedicated CW-Series quick coupler enables a quick tool exchange while maintaining top machine performance. It is available in a hydraulic and spindle version.

- The hydraulic version is available in a standard and a narrow version and makes it very easy for the operator to switch tools without having to leave the cab.
- The spindle version is a user-friendly mechanical version that can later be easily converted into the hydraulic version if required. The spindle version is also available in the narrow and standard version.
- A lifting hook is added to the dedicated Quick Coupler for maximum lift capacity.



**Pin Grabber Plus Quick Coupler.** This hydraulically controlled Pin Grabber Plus quick coupler makes changing buckets and other popular work tools simple and fast. The Pin Grabber Plus coupler mounts to the end of the stick and allows buckets, clamshells and other work tools to be used with little or no modification.

- Each model fully adjusts to different pin spreads of various tools regardless of manufacturer – it is the only coupler that accommodates a wide range of work tool makes and models.
- Pin-on assembly makes coupler installation and removal fast and easy.
- Coupler retains the same bucket opening and closing angles.
- Buckets can be reversed for greater flexibility when working around and under obstructions.
- Integrated lift eye.



A factory installed Quick Coupler hydraulic circuit avoids difficult and costly retrofitting of Quick Coupler hydraulics and allows usage of the most frequently used Quick Coupler systems. Ask your Cat dealer for more specific information.



**Multi-Processor.** The Caterpillar Multi-Processors can be equipped with different jaw types depending on your need.

- CC-jaws combi cutter.
- CR-jaws concrete crusher.
- PP-jaws primary pulveriser.
- PS-jaws secondary pulveriser.
- TS-jaws tank shear.
- S-jaws steel.

**Demolition and Sorting Grapple.** The demolition and sorting grapple with unlimited left and right rotation is the ideal tool for stripping, sorting, handling and loading.

**Hammer.** The Cat hammers with a wide variety of tools provide the perfect match for maximal life, efficiency and productivity.

## Engine

Cat 3066 ATAAC diesel engine

Ratings	1800 rpm
Gross Power	110 kW/147 hp
Net Power	
ISO 9249	103 kW/138 hp
EEC 80/1269	103 kW/138 hp
Bore	102 mm
Stroke	130 mm
Displacement	6.4 liters

- The 3066 ATAAC engine meets EU directive 97/68/EC Stage II emission requirements.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No engine derating required below 2300 m altitude.

## Hydraulic System

Main Implement System

Maximum Flow (2x)	205 l/min
Maximum pressure	
Implements	34 300 kPa
Travel	34 300 kPa
Swing	26 000 kPa

Pilot System

Maximum flow	32.5 l/min
Maximum pressure	4120 kPa

Boom Cylinder

Bore	120 mm
Stroke	1260 mm

Stick Cylinder

Bore	140 mm
Stroke	1430 mm

B Family Bucket Cylinder

Bore	120 mm
Stroke	1030 mm

C Family Bucket Cylinder

Bore	130 mm
Stroke	1150 mm

## Drive

Maximum Travel Speed	5.5 km/h
Maximum Drawbar Pull	196 kN

## Swing Mechanism

Swing Speed	11.5 rpm
Swing Torque	61.8 kNm

## Cab

Cab/FOGS meets ISO 10262.

## Sound

The dynamic exterior sound power level meets EU Directive 2000/14/EC.

## Machine and Major Component Weights

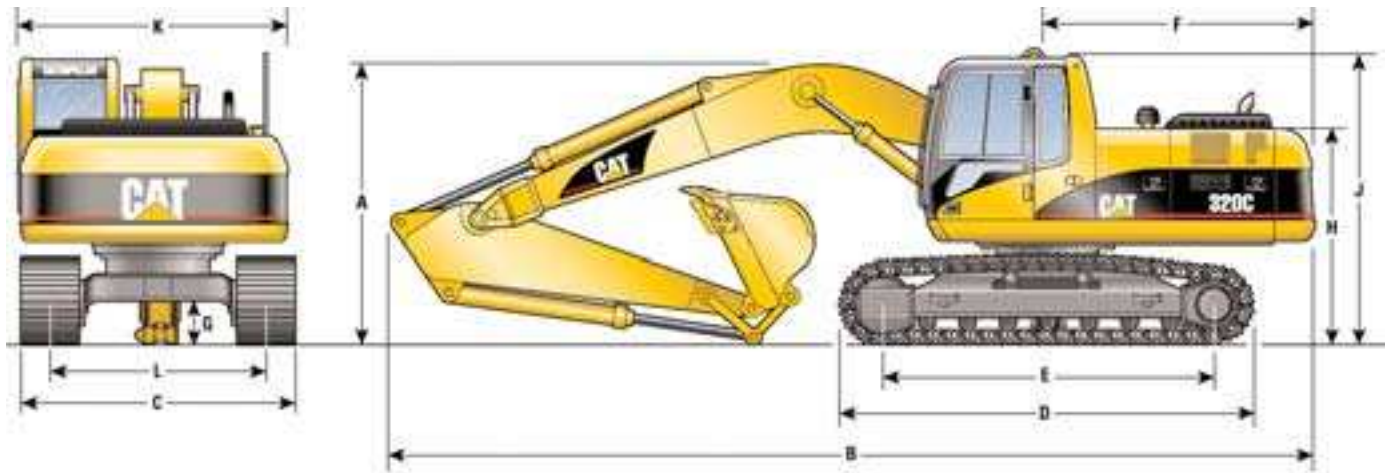
Actual weights and ground pressures will depend on final machine configuration.

		Reach boom 5680 mm			ME boom 5200 mm			VA boom 5460 mm		
		R1.9C	R2.5B	R2.9B	M1.9C	M2.4C	M2.9B	M1.9C	M2.4C	M2.9B
Sticks	mm	1900	2500	2900	1900	2400	2900	1900	2400	2900
Bucket type		CX1000	BX1250	BX1000	CX1000	CX1000	BX1000	CX1000	CX1000	BX1000
Operating weight*										
320C	kg	21 115	20 880	20 870	21 130	21 170	21 100	21 855	21 890	21 785
320C L	kg	21 660	21 430	21 415	21 680	21 715	21 650	22 400	22 410	22 333
320C LN	kg	21 630	21 395	21 385	21 645	21 685	21 600	22 370	22 405	22 000
Ground pressure										
320C	kg/cm <sup>2</sup>	0.50	0.49	0.49	0.50	0.50	0.50	0.51	0.51	0.51
320C L	kg/cm <sup>2</sup>	0.46	0.45	0.45	0.46	0.46	0.46	0.47	0.48	0.47
320C LN	kg/cm <sup>2</sup>	0.55	0.54	0.54	0.55	0.55	0.55	0.57	0.57	0.57
Stick weight (without cylinders)	kg	680	660	790	680	715	900	680	715	900
Boom weight (without cylinders)	kg		1260			1270			1600	
Upperstructure (without counterweight)	kg		5575			5575			5575	
Undercarriage										
320C (600 mm shoes)	kg		7090			7090			7090	
320C L (600 mm shoes)	kg		7640			7640			7640	
320C LN (500 mm shoes)	kg		7310			7310			7310	
Counterweight										
320C and 320C L	kg		4120			4120			4120	
320C LN	kg		4420			4420			4420	

\* With counterweight, operator and full fuel.

# Dimensions

All dimensions are approximate.



	mm
<b>A Shipping height (with bucket)</b>	
Reach boom	
1900 mm stick	3120
2500 mm stick	3010
2900 mm stick	3010
ME boom	
1900 mm stick	3120
2400 mm stick	3250
2900 mm stick	3140
VA Boom	
1900 mm stick	3010
2400 mm stick	3010
2900 mm stick	3010

	mm
<b>B Shipping length</b>	
Reach boom	
1900 mm stick	9650
2500 mm stick	9420
2900 mm stick	9390
ME boom	
1900 mm stick	9200
2400 mm stick	9030
2900 mm stick	9000
VA Boom	
1900 mm stick	9520
2400 mm stick	9240
2900 mm stick	9240

	mm
<b>C Shipping width</b>	
320C with 600 mm shoes (standard)	2800
320C L with 600 mm shoes (standard)	2980
320C L with 700 mm shoes	3080
320C L with 800 mm shoes	3180
320C L with 900 mm shoes	3280
320C LN with 500 mm shoes (standard)	2490
320C LN with 600 mm shoes	2590
<b>D Track length</b>	
320C	4070
320C L and 320C LN	4450
<b>E Length to centers of rollers</b>	
320C	3260
320C L and 320C LN	3650
<b>F Tail swing radius</b>	2770
<b>G Ground clearance</b>	460
<b>H Body height</b>	2150
<b>J Cab height</b>	
with FOG	3050
without FOG	2950
<b>K Body width</b>	2500
<b>L Track gauge</b>	
320C	2200
320C L	2380
320C LN	1990

## Track Width

<b>Undercarriage</b>	
Standard	600 mm
Long	600 mm
Long Narrow	500 mm
<b>Optional Undercarriage</b>	
Standard	600 mm HD
Long	700 mm, 600 mm HD
Long Narrow	800 mm, 900 mm, 700 mm HD
Long Narrow	600 mm

## Service Refill Capacities

	Liter
Fuel Tank Capacity	320
Cooling System	24
Engine Oil	30
Swing Drive	8
Final Drive (each)	10
Hydraulic System (including tank)	200
Hydraulic Tank	120

# Bucket Specifications

Contact your Caterpillar dealer for special bucket requirements.

All buckets are available to fit the Cat quick coupler.

## Buckets (bucket weights including tips)

Bucket type	Linkage	Width mm	Weight kg	Capacity SAE m³	Reach boom 5680 mm									ME boom 5200 mm									VA boom 5460 mm									
					320C			320C L			320C LN			320C			320C L			320C LN			320C			320C L			320C LN			
					1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9
Excavation	B	1100	841	1.1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1250	727	1.05	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1300	769	1.1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1400	763	1.2	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1500	781	1.35	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1300	1008	1.35	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1400	1050	1.4	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1500	1116	1.55	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1600	1093	1.7	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Extreme Excavation	B	600	581	0.41	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
	B	750	635	0.55	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
	B	1000	732	0.8	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
	B	1250	813	1.05	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1400	859	1.2	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	750	764	0.63	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1000	905	0.95	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1450	1147	1.5	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1600	1216	1.7	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Maximum load in kg (payload plus bucket)					3098	2762	2540	3514	3121	2876	2924	2614	2402	3541	3190	2826	4001	3606	3196	3342	3012	2542	3066	2762	2449	3498	3155	2801	2876	2591	2298	

## Buckets and Quick Coupler (bucket weights including tips and 254 kg quick coupler)

Bucket type	Linkage	Width mm	Weight kg	Capacity SAE m³	Reach boom 5680 mm									ME boom 5200 mm									VA boom 5460 mm								
					320C			320C L			320C LN			320C			320C L			320C LN			320C			320C L			320C LN		
					1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9
Excavation	B	1100	1095	1.1	×	×	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1250	981	1.05	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1300	1023	1.1	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1400	1017	1.2	×	×	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1500	1035	1.35	×	N	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1300	1260	1.35	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×
	C	1400	1302	1.4	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×
	C	1500	1368	1.55	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×
	C	1600	1345	1.7	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×
Extreme Excavation	B	600	835	0.41	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	750	889	0.55	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1000	986	0.8	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	B	1250	1067	1.05	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×
	B	1400	1113	1.2	×	×	N	×	×	×	×	N	N	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×
	C	750	1016	0.63	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1000	1157	0.95	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	C	1450	1399	1.5	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×
	C	1600	1468	1.7	N	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	N	×	×	×	×	×	×	×	×	×	×
Maximum load in kg (payload plus bucket)					2970	2572	2333	3410	2941	2678	2786	2419	2192	3445	3062	2581	3933	3500	2963	3233	2874	2421	2929	2601	2190	3382	3011	2550	2728	2422	2035

Max. Material density 1200 kg/m³  
 Max. Material density 1500 kg/m³  
 Material density 1800 kg/m³ and more  
 Not recommended  
 Not compatible



# 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.

		Reach boom 5680 mm									ME boom 5200 mm									VA boom 5460 mm								
		320C			320C L			320C LN			320C			320C L			320C LN			320C			320C L			320C LN		
		m	1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.5	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9	1.9	2.4	2.9		
Hammers	H115Cs	×			×			×			×	×		×	×		×	×		×	×		×	×		×	×	
	H120Cs		×	×		×	×		×	×		×	×		×	×		×	×		×	×		×	×		×	×
	H130s		×	×		×	×		×	×		×	×		×	×		×	×		×	×		×	×		×	×
Mechanical Pulverizers	P115																											
	VMC-30																											
Multiprocessor	MP15																											
	MP20	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
Crushers	CR20		×	×		×	×	×	×	×		×			×	×		×	×		×	×		×	×	×	×	×
	CR28	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
	VHC-30																											×
	VHC-40	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
Pulverizers	P16																											×
	P20		×	×				×	×	×		×														×	×	×
	VHP-30																											×
	VHP-40	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
Mechanical Shears	S115																											
	VCS-35																											
	VWC-25																											
	VWS-25																											
180° rotatable Shears	S225	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
	S225*																											
	S230*																											
360° rotatable Shears	S320			×				×		×																×		×
	S325*																											×
	S440*	×	×	×				×	×	×																×	×	×
Mechanical Grapples	G112																											
	G115		×	×			×		×	×							×		×	×				×	×	×	×	×
Demolition and Sorting Grapple	G315	×	×	×		×	×	×	×	×		×	×		×	×	×	×	×		×	×		×	×	×	×	×
	G320	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×		×	×		×	×	×	×	×

\* Boom Mounted

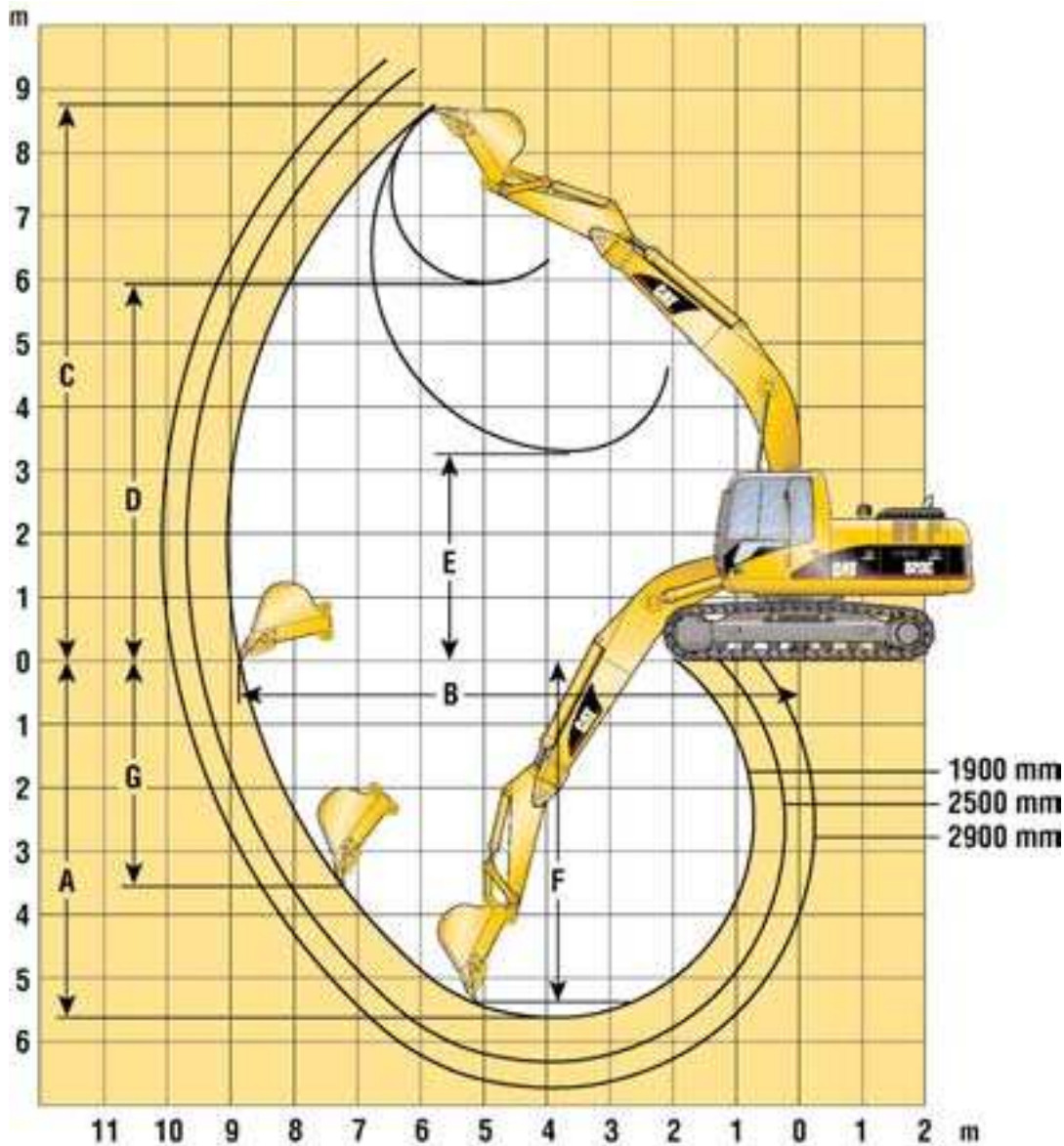
360° Working Range  
Over the front only

Recommended  
Available

Not Compatible

# Reach Boom Working Ranges

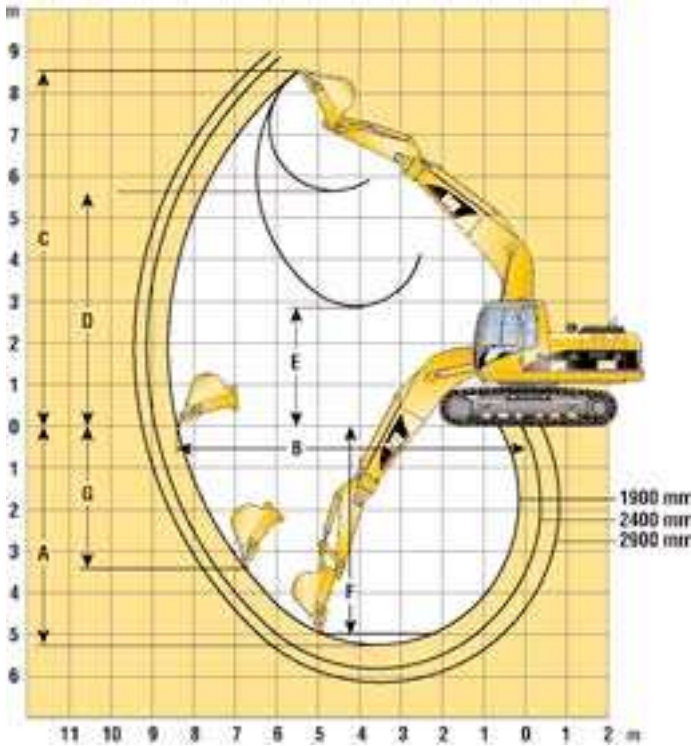
Reach (R) boom configuration (5680 mm)



		<b>R1.9C</b>	<b>R2.5B</b>	<b>R2.9B</b>
Stick Length	mm	1900	2500	2900
<b>A</b> Maximum Digging Depth	mm	-5690	-6110	-6550
<b>B</b> Maximum Reach at Ground Level	mm	8850	9300	9710
<b>C</b> Maximum Cutting Height	mm	8810	9240	9440
<b>D</b> Maximum Loading Height	mm	5900	6490	6670
<b>E</b> Minimum Loading Height	mm	3240	2790	2370
<b>F</b> Maximum Digging Depth 2440 mm Level Bottom	mm	-5430	-5900	-6370
<b>G</b> Maximum Vertical Wall Digging Depth	mm	-3680	-5010	-5440
Bucket Tip Radius	mm	1550	1420	1420
Bucket Forces (ISO 6015)	kN	153	132	132
Stick Forces (ISO 6015)	kN	144	113	99

## Mass Excavation Boom Working Ranges

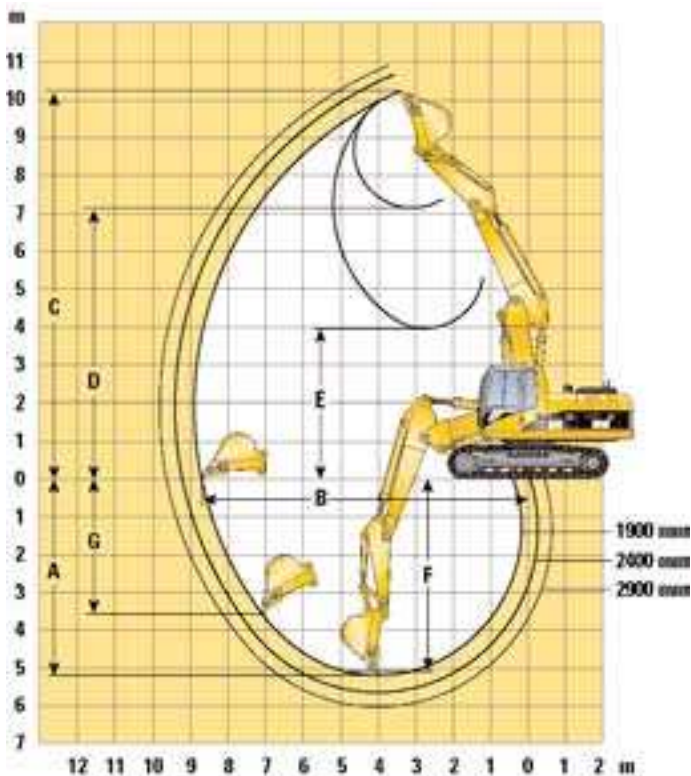
Mass (ME) boom configuration (5200 mm)



		<b>M1.9C</b>	<b>M2.4C</b>	<b>M2.9B</b>
Stick Length	mm	1900	2400	2900
<b>A</b> Maximum Digging Depth	mm	-5250	-5750	-6140
<b>B</b> Maximum Reach at Ground Level	mm	8390	8850	9190
<b>C</b> Maximum Cutting Height	mm	8580	8800	9010
<b>D</b> Maximum Loading Height	mm	5630	5860	6250
<b>E</b> Minimum Loading Height	mm	2870	2370	1970
<b>F</b> Maximum Digging Depth 2440 mm Level Bottom	mm	-5010	-5550	-5960
<b>G</b> Maximum Vertical Wall Digging Depth	mm	-3520	-3970	-4980
Bucket Tip Radius	mm	1550	1550	1420
Bucket Forces (ISO 6015)	kN	153	153	132
Stick Forces (ISO 6015)	kN	144	125	99

## VA Boom Working Ranges

Variable Geometry Adjustaboom (5460 mm)



		<b>M1.9C</b>	<b>M2.4C</b>	<b>M2.9B</b>
Stick Length	mm	1900	2400	2900
<b>A</b> Maximum Digging Depth	mm	-5200	-5690	-6030
<b>B</b> Maximum Reach at Ground Level	mm	8740	9220	9570
<b>C</b> Maximum Cutting Height	mm	10 260	10 660	10 930
<b>D</b> Maximum Loading Height	mm	7100	7500	8110
<b>E</b> Minimum Loading Height	mm	3910	3480	3050
<b>F</b> Maximum Digging Depth 2440 mm Level Bottom	mm	-5070	-5570	-5930
<b>G</b> Maximum Vertical Wall Digging Depth	mm	-3550	-4000	-4680
Bucket Tip Radius	mm	1550	1550	1420
Bucket Forces (ISO 6015)	kN	153	153	132
Stick Forces (ISO 6015)	kN	144	125	99

# Lift capacities with Reach boom (5680 mm)

All weights are in kg

**320C**

**Short Stick**  
1900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m								
7.5 m															*3970	3670	6.55						
6.0 m															*3990	2550	7.79						
4.5 m															*6220	*6220	*5110	3870	3340	2070	8.46		
3.0 m															*7810	5770	*5790	3650	3930	2420	3060	1850	8.75
1.5 m															8800	5270	5560	3430	3850	2340	3030	1810	8.70
Ground															8590	5080	5410	3290			3240	1950	8.32
-1.5 m															*10 050	*10 050	8610	5100	5390	3270	*3580	2350	7.54
-3.0 m															*11 050	10 520	*8120	5280	5540	3410			

**320C**

**Medium Stick**  
2500 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
1.05 m<sup>3</sup>

**Bucket Weight**  
759 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m										
7.5 m															*2520	*2520	7.24								
6.0 m															*4350	4190	*2370	2350	8.34						
4.5 m															*4820	4080	4180	2670	*2360	1970	8.98				
3.0 m															*7380	6150	*5600	3870	4110	2600	*2440	1790	9.26		
1.5 m															*8920	5660	5780	3650	4010	2500	*2610	1740	9.24		
Ground															8920	5390	5610	3490	3930	2430	*2920	1840	8.91		
-1.5 m															*9120	*9120	8860	5330	5540	3430	3910	2410	*3430	2120	8.24
-3.0 m															*12 620	10 730	*8930	5420	5590	3470			*3810	2790	7.10
-4.5 m															*9790	*9790	*6910	5670							

**320C**

**Long Stick**  
2900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.8 m<sup>3</sup>

**Bucket Weight**  
689 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m										
7.5 m															*3930	*3930	*1930	*1930	7.76						
6.0 m															*4000	*4000	*2610	*2610	*1820	*1820	8.78				
4.5 m															*4510	4180	*4200	2760	*1810	*1810	9.38				
3.0 m															*11 070	*11 070	*6870	6310	*5320	3950	4180	2660	*1870	1680	9.65
1.5 m															8540	5770	5850	3710	4060	2550	*2010	1640	9.63		
Ground															*5260	*5260	8980	5440	5640	3520	3960	2460	*2240	1720	9.32
-1.5 m	*5180	*5180	*8860	*8860	8850	5330	5550	3430	3910	2410					*2650	1950	8.68								
-3.0 m	*9150	*9150	*12 990	10 600	8900	5370	5560	3450					*3390	2470	7.63										
-4.5 m															*10 980	10 980	*7680	5570							

**320C L**

**Short Stick**  
1900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m												
7.5 m															*3970	*3970	6.55										
6.0 m															*3990	2890	7.79										
4.5 m															*6220	*6220	*5110	4360	4010	2360	8.46						
3.0 m															*7810	6530	*5790	4130	4730	2760	3690	2130	8.75				
1.5 m															*9080	6020	*6450	3910	4650	2690	3660	2100	8.70				
Ground															*9500	5820	6570	3770					3920	2250	8.32		
-1.5 m															*10 050	*10 050	*9200	5850	6550	3750					*3580	2690	7.54
-3.0 m															*11 050	*11 050	*8120	6030	*5710	3890							

**320C L**

**Medium Stick**  
2500 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
1.05 m<sup>3</sup>

**Bucket Weight**  
759 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m												
7.5 m															*2520	*2520	2.24										
6.0 m															*4350	*4350	*2370	*2370	8.34								
4.5 m															*4850	4570	*4450	3010	*2360	2240	8.98						
3.0 m															*7380	6920	*5600	4350	*4760	2950	*2440	2050	9.26				
1.5 m															*8920	6410	*6380	4120	4810	2850	*2610	2010	9.24				
Ground															*9700	6140	6770	3960	4720	2770	*2920	2110	8.91				
-1.5 m															*9120	*9120	*9690	6080	6700	3900	4710	2760	*3440	2420	8.24		
-3.0 m															*12 620	12 410	*8930	6170	*6460	3950					*3810	3160	7.10
-4.5 m															*9790	*9790	*6910	6430									

### 320C L

**Long Stick**

2900 mm

**Shoes**

















600 mm

**Bucket Capacity (SAE)**

0.8 m<sup>3</sup>

**Bucket Weight**

689 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m							*3930	*3930					*1930	*1930	7.76
6.0 m							*4000	*4000	*2610	*2610			*1820	*1820	8.78
4.5 m							*4510	*4510	*4200	3110			*1810	*1810	9.38
3.0 m			*11 070	*11 070	*6870	*6870	*5320	4440	*4560	3010			*1870	*1870	9.65
1.5 m					*8540	6530	*6170	4190	4860	2900			*2010	1890	9.63
Ground			*5260	*5260	*9550	6190	*6800	4000	4750	2800			*2240	1970	9.32
-1.5 m	*5180	*5180	*8860	*8860	*9770	6080	6700	3900	4710	2760			*2650	2230	8.68
-3.0 m	*9150	*9150	*12 990	12 270	*9250	6120	*6710	3920					*3390	2810	7.63
-4.5 m			*10 980	*10 980	*7680	6320									

### 320C LN

**Short Stick**

1900 mm

**Shoes**

















500 mm

**Bucket Capacity (SAE)**

0.95 m<sup>3</sup>

**Bucket Weight**

866 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*3970	3480	6.55
6.0 m							*4740	3740					*3990	2410	7.79
4.5 m					*6220	5990	*5110	3660					*4060	1950	8.46
3.0 m					*7810	5400	*5790	3440	4820	2270			3770	1740	8.75
1.5 m					*9080	4910	*6450	3220	4740	2200			3740	1700	8.70
Ground					*9500	4730	6700	3090					4000	1830	8.32
-1.5 m			*10 050	9280	*9200	4750	6680	3070					*3580	2210	7.54
-3.0 m			*11 050	9610	*8120	4920	*5710	3200							

### 320C LN

**Medium Stick**

2500 mm

**Shoes**

















500 mm

**Bucket Capacity (SAE)**

1.05 m<sup>3</sup>

**Bucket Weight**

759 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*2520	*2520	7.24
6.0 m							*4350	3970					*2370	2230	8.34
4.5 m							*4820	3860	*4450	2520			*2360	1860	8.98
3.0 m					*7380	5780	*5600	3660	*4760	2460			*2440	1680	9.26
1.5 m					*8920	5300	*6380	3440	4900	2360			*2610	1640	9.24
Ground					*9700	5040	6900	3280	4820	2290			*2920	1730	8.91
-1.5 m			*9120	*9120	*9690	4980	6820	3220	4800	2270			*3440	2000	8.24
-3.0 m			*12 620	9820	*8930	5070	*6460	3270					*3810	2630	7.10
-4.5 m			*9790	*9790	*6910	5310									

### 320C LN

**Long Stick**

2900 mm

**Shoes**

















500 mm

**Bucket Capacity (SAE)**

0.8 m<sup>3</sup>

**Bucket Weight**

689 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m							*3930	*3930					*1930	*1930	7.76
6.0 m							*4000	*4000	*2610	2610			*1820	*1820	8.78
4.5 m							*4510	3960	*4200	2610			*1810	1750	9.38
3.0 m			*11 070	*11 070	*6870	5930	*5320	3740	*4560	2520			*1870	1590	9.65
1.5 m					*8540	5410	*6170	3500	4950	2410			*2010	1550	9.63
Ground			*5260	*5260	*9550	5090	*6800	3310	4850	2310			*2240	1620	9.32
-1.5 m	*5180	*5180	*8860	*8860	*9770	4980	6830	3230	4800	2270			*2650	1830	8.68
-3.0 m	*9150	*9150	*12 990	9700	*9250	5020	*6710	3240					*3390	2330	7.63
-4.5 m			*10 980	10 060	*7680	5210									



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

\* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

# Lift capacities with Mass Excavation boom (5200 mm)

All weights are in kg

**320C**

**Short Stick**  
1900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m														*3970	*3970	5.85
6.0 m														*3700	2980	7.24
4.5 m						*6340	*6340	*5440	3920					*3680	2380	7.98
3.0 m						*7820	6040	5920	3760					3430	2120	8.30
1.5 m						9130	5550	5710	3560					3390	2070	8.25
Ground						8860	5310	5560	3430					3670	2250	7.83
-1.5 m						*13340	10420	8850	5300	5550	3420			*3400	2770	6.98
-3.0 m						*11060	10820	*7870	5490							

**320C**

**Medium Stick**  
2400 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m														*3240	*3240	6.54
6.0 m								*4720	4060					*3030	2630	7.78
4.5 m						*5700	*5700	*5000	4010					*3010	2140	8.46
3.0 m						*7230	6200	*5670	3820	4010	2490			*3130	1920	8.75
1.5 m						*8750	5660	5750	3590	3930	2420			3090	1870	8.71
Ground						*7700	*7700	8900	5350	5570	3430			3300	2000	8.32
-1.5 m			*7440	*7440	*13600	10330	8810	5270	5500	3370			3900	2400	7.54	
-3.0 m					*12310	10640	*8520	5380	5620	3470						

**320C**

**Long Stick**  
2900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.8 m<sup>3</sup>

**Bucket Weight**  
689 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m														*2470	*2470	7.07
6.0 m								*4290	4280					*2300	*2300	8.20
4.5 m								*4650	4190	*3860	2700			*2280	2070	8.85
3.0 m						*9980	*9980	*6700	6460	*5380	3980	4160	2640	*2370	1870	9.14
1.5 m						*9100	*9100	*8390	5910	5900	3740	4050	2540	*2550	1810	9.12
Ground						*8760	*8760	9100	5540	5690	3550	3960	2450	*2880	1910	8.78
-1.5 m			*6880	*6880	*12700	10510	8940	5390	5580	3460			*3460	2200	8.09	
-3.0 m			*11720	*11720	*13430	10710	8980	5430	5620	3490			*3760	2910	6.93	
-4.5 m					*10180	*10180	*6880	5680								

**320C L**

**Short Stick**  
1900 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m														*3970	*3970	5.85
6.0 m														*3700	3360	7.24
4.5 m						*6340	*6340	*5440	4410					*3680	2700	7.98
3.0 m						*7820	6810	*6020	4240					*3820	2420	8.30
1.5 m						*9150	6310	*6650	4040					4090	2380	8.25
Ground						*9690	6060	6730	3900					4420	2580	7.83
-1.5 m						*13340	12090	*9350	6050	*6710	3890			*3400	3160	6.98
-3.0 m						*11060	*11060	*7870	6250							

**320C L**

**Medium Stick**  
2400 mm

**Shoes**  
600 mm

**Bucket Capacity (SAE)**  
0.95 m<sup>3</sup>

**Bucket Weight**  
866 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m														*3240	*3240	6.54
6.0 m								*4720	4560					*3030	2970	7.78
4.5 m						*5700	*5700	*5000	4500					*3010	2440	8.46
3.0 m						*7230	6970	*5670	4310	4820	2840			*3130	2200	8.75
1.5 m						*8750	6430	*6390	4080	4740	2770			*3390	2160	8.71
Ground						*7700	*7700	*9580	6100	6730	3910			*3840	2300	8.32
-1.5 m			*7440	*7440	*13600	12000	*9550	6020	6670	3850			*4290	2740	7.54	
-3.0 m					*12310	*12310	*8520	6130	*5810	3950						

### 320C L

#### Long Stick

2900 mm

#### Shoes











600 mm

#### Bucket Capacity (SAE)

0.8 m<sup>3</sup>

#### Bucket Weight

689 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			
									m
7.5 m								*2470 *2470	7.07
6.0 m					*4290 *4290			*2300 *2300	8.20
4.5 m					*4650 *4650 *3860 3050			*2280 *2280	8.85
3.0 m		*9980 *9980 *6700 *6700	*5380 4470 *4730 2990					*2370 2130	9.14
1.5 m		*9100 *9100 *8390 6680	*6200 4220 4860 2890					*2550 2080	9.12
Ground		*8760 *8760 *9490 6300	*6820 4030 4760 2800					*2880 2190	8.78
-1.5 m	*6880 *6880	*12 700 12 180 *9750 6150	6750 3930					*3460 2510	8.09
-3.0 m	*11 720 *11 720	*13 430 12 390 *9080 6190	*6440 3970					*3760 3300	6.93
-4.5 m		*10 180 *10 180	*6880 6440						

### 320C LN

#### Short Stick

1900 mm

#### Shoes











500 mm

#### Bucket Capacity (SAE)

0.95 m<sup>3</sup>

#### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			
									m
7.5 m								*3970 *3970	5.85
6.0 m								*3700 2830	7.24
4.5 m				*6340 6160	*5440 3700			*3680 2240	7.98
3.0 m				*7820 5660	*6020 3540			*3820 1990	8.30
1.5 m				*9150 5180	*6650 3350			*4130 1950	8.25
Ground				*9690 4950	6860 3220			4510 2110	7.83
-1.5 m		*13 340 9510	*9350 4950	*6710 3210				*3400 2610	6.98
-3.0 m		*11 060 9890	*7870 5130						

### 320C LN

#### Medium Stick

2400 mm

#### Shoes











500 mm

#### Bucket Capacity (SAE)

0.95 m<sup>3</sup>

#### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			
									m
7.5 m								*3240 *3240	6.54
6.0 m					*4720 3840			*3030 2490	7.78
4.5 m				*5700 *5700	*5000 3790			*3010 2020	8.46
3.0 m				*7230 5810	*5670 3600 4910 2350			*3130 1800	8.75
1.5 m				*8750 5300	*6390 3380 4830 2280			*3390 1760	8.71
Ground		*7700 *7700	*9580 4990	6860 3220				*3840 1880	8.32
-1.5 m	*7440 *7440	*13 600 9420	*9550 4910	6800 3160				*4290 2260	7.54
-3.0 m		*12 310 9720	*8520 5020	*5810 3260					

### 320C LN

#### Long Stick

2900 mm

#### Shoes











500 mm

#### Bucket Capacity (SAE)

0.8 m<sup>3</sup>

#### Bucket Weight

689 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			
									m
7.5 m								*2470 *2470	7.07
6.0 m					*4290 4050			*2300 *2300	8.20
4.5 m					*4650 3970 *3860 2550			*2280 1950	8.85
3.0 m		*9980 *9980 *6700 6070	*5380 3760 *4730 2490					*2370 1760	9.14
1.5 m		*9100 *9100 *8390 5540	*6200 3530 4950 2390					*2550 1710	9.12
Ground		*8760 *8760 *9490 5180	*6820 3340 4850 2310					*2880 1790	8.78
-1.5 m	*6880 *6880	*12 700 9600	*9750 5040	6870 3250				*3460 2070	8.09
-3.0 m	*11 720 *11 720	*13 430 9790	*9080 5080	*6440 3280				*3760 2750	6.93
-4.5 m		*10 180 *10 180	*6880 5320						

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

\* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

# Lift capacities with Variable Geometry Adjustaboom (5460 mm)

All weights are in kg

## 320C VA

### Short Stick

1900 mm

### Shoes

600 mm

### Bucket Capacity

0.95 m<sup>3</sup>

### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			m
9.0 m									*5140 *5140 3.55
7.5 m			*7470 6690						*4010 3840 6.36
6.0 m		*8080 *8080	*7470 6780	*5760 3890					*3720 2600 7.64
4.5 m			*8440 6410	*5970 3840					3420 2080 8.34
3.0 m			*9320 5780	5830 3620					3120 1850 8.64
1.5 m			8870 5250	5570 3390	3830 2290				3090 1820 8.60
Ground			*8620 5030	5420 3250					*3300 1980 8.21
-1.5 m			*6810 5060	*5040 3240					

## 320C VA

### Medium Stick

2400 mm

### Shoes

600 mm

### Bucket Capacity

0.95 m<sup>3</sup>

### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			m
9.0 m									*3950 *3950 4.90
7.5 m			*6840 *6840						*3270 3210 7.04
6.0 m			*6910 *6910	*5380 4040					*3050 2290 8.18
4.5 m		*8910 *8910	*7810 6600	*5660 3930	4010 2460				*3000 1870 8.83
3.0 m			*9030 5980	5910 3690	3960 2410				2850 1670 9.11
1.5 m			9030 5380	5620 3430	3850 2310				2810 1630 9.07
Ground			8660 5070	5420 3250	3780 2240				3000 1750 8.71
-1.5 m		*9150 *9150	*7570 5010	5370 3200					*2360 2090 7.98
-3.0 m			*5030 *5030						

## 320C VA

### Long Stick

2900 mm

### Shoes

600 mm

### Bucket Capacity

0.8 m<sup>3</sup>

### Bucket Weight

689 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			m
9.0 m									*2950 *2950 5.75
7.5 m			*5530 *5530	*4350 4140					*2490 *2490 7.56
6.0 m			*5370 *5380	*5150 4220					*2310 2150 8.61
4.5 m		*5630 *5630	*6420 *6430	*5430 4090	4180 2620				*2270 1780 9.23
3.0 m			*8750 6230	*5970 3830	4080 2520				*2320 1610 9.51
1.5 m			9270 5600	5750 3550	3950 2400				*2460 1570 9.49
Ground		*5720 *5720	8820 5220	5520 3340	3840 2300				*2720 1650 9.17
-1.5 m		*9730 *9730	*8280 5090	5420 3250	3810 2270				*2640 1900 8.52
-3.0 m			*6100 5170	*4350 3290					

## 320C L VA

### Short Stick

1900 mm

### Shoes

600 mm

### Bucket Capacity

0.95 m<sup>3</sup>

### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			m
9.0 m									*5140 *5140 3.55
7.5 m			*7470 *7470						*4010 *4010 6.36
6.0 m		*8080 *8080	*7470 *7470	*5760 4380					*3720 2950 7.64
4.5 m			*8440 7210	*5970 4330					*3670 2390 8.34
3.0 m			*9320 6570	*6530 4110					*3750 2150 8.64
1.5 m			*9500 6010	6760 3870	4650 2640				3760 2120 8.60
Ground			*8620 5790	*6350 3730					*3300 2290 8.21
-1.5 m			*6810 5820	*5040 3730					

## 320C L VA

### Medium Stick

2400 mm

### Shoes

600 mm

### Bucket Capacity

0.95 m<sup>3</sup>

### Bucket Weight

866 kg

	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m			m
9.0 m									*3950 *3950 4.90
7.5 m			*6840 *6840						*3270 *3270 7.04
6.0 m			*6910 *6910	*5380 4540					*3050 2610 8.18
4.5 m		*8910 *8910	*7810 7410	*5660 4430	*4400 2810				*3000 2150 8.83
3.0 m			*9030 6760	*6210 4180	*4550 2760				*3070 1950 9.11
1.5 m			*9530 6150	6820 3920	4670 2660				*3270 1910 9.07
Ground			*9040 5830	*6570 3730	4590 2590				*3230 2040 8.71
-1.5 m		*9150 *9150	*7570 5770	*5570 3680					*2360 *2360 7.98
-3.0 m			*5030 *5030						



### 320C L VA

#### Long Stick

2900 mm

#### Shoes

600 mm

#### Bucket Capacity

0.8 m<sup>3</sup>

#### Bucket Weight

689 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
9.0 m													*2850	*2950	5.75
7.5 m					*5530	*5530	*4350	*4350					*2490	*2490	7.56
6.0 m					*5370	*5380	*5150	4730					*2310	*2310	8.61
4.5 m			*5630	*5630	*6420	*6430	*5430	4590	*4250	2970			*2270	2060	9.23
3.0 m					*8750	7020	*5970	4330	*4430	2880			*2320	1870	9.51
1.5 m					*9540	6380	*6710	4040	*4690	2750			*2460	1830	9.49
Ground			*5720	*5720	*9410	5980	6700	3830	4660	2650			*2720	1920	9.17
-1.5 m			*9730	*9730	*8280	5850	*6050	3730	*4140	2630			*2640	2200	8.52
-3.0 m					*6100	5930	*4350	3780							

### 320C LN VA

#### Short Stick

1900 mm

#### Shoes

500 mm

#### Bucket Capacity

0.95 m<sup>3</sup>

#### Bucket Weight

866 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
9.0 m													*5140	*5140	3.55
7.5 m					*7470	6280							*4010	3630	6.36
6.0 m			*8080	*8080	*7470	6370	*5760	3660					*3720	2450	7.64
4.5 m					*8440	6010	*5970	3610					*3670	1950	8.34
3.0 m					*9320	5400	*6530	3390					*3750	1740	8.64
1.5 m					*9500	4880	*6850	3170	4740	2140			3840	1700	8.60
Ground					*8620	4670	*6360	3030					*3300	1850	8.21
-1.5 m					*6810	4700	*5040	3030							

### 320C LN VA

#### Medium Stick

2400 mm

#### Shoes

500 mm

#### Bucket Capacity

0.95 m<sup>3</sup>

#### Bucket Weight

866 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
9.0 m			*7790	*7790									*3950	*3950	4.90
7.5 m					*6840	6540							*3270	3030	7.04
6.0 m					*6910	6550	*5380	3810					*3050	2150	8.18
4.5 m			*8910	*8910	*7810	6190	*5660	3700	*4400	2300			*3000	1750	8.83
3.0 m					*9030	5580	*6210	3460	*4550	2250			*3070	1560	9.11
1.5 m					*9530	5010	*6850	3210	4770	2160			*3270	1520	9.07
Ground					*9040	4700	*6570	3030	4690	2090			*3230	1630	8.71
-1.5 m			*9150	9030	*7570	4650	*5570	2980					*2360	1960	7.98
-3.0 m					*5030	4790									

### 320C LN VA

#### Long Stick

2900 mm

#### Shoes

500 mm

#### Bucket Capacity

0.8 m<sup>3</sup>

#### Bucket Weight

686 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
9.0 m													*2950	*2950	5.75
7.5 m					*5530	*5530	*4350	3750					*2490	*2490	7.56
6.0 m					*5370	*5380	*5150	3830					*2310	1920	8.61
4.5 m			*5630	*5630	*6420	6190	*5430	3700	*4250	2340			*2270	1580	9.23
3.0 m					*8750	5600	*5970	3450	*4430	2250			*2320	1410	9.51
1.5 m					*9540	5000	*6710	3170	*4690	2130			*2460	1370	9.49
Ground			*5720	*5720	*9410	4620	*6610	2970	4580	2030			*2720	1440	9.17
-1.5 m			*9730	8700	*8280	4500	*6050	2880	*4140	2000			*2640	1680	8.52
-3.0 m					*6100	4570	*4350	2920							



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

\* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

## Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for specifics.

### Operator Environment

Ash tray with cigar lighter  
Bi-level air conditioner with automatic climate control  
Bolt-on FOGS capability  
Coat hook  
Drink holder  
Emergency exit  
Fixed one piece front windscreen  
Floor mat washable  
Fully adjustable suspension seat with headrest  
Heater and Defroster  
Horn  
Joysticks, adjustable and pre-wired with sliding switches for auxiliary functions  
Light, interior  
Literature holder  
Parallel mounted bottom wiper and washer  
Polycarbonate Skylight  
Positive filtered ventilation  
Power supply 12V - 7A  
Pre-wired radio mounting (2)  
Retractable seatbelt  
Return filter clogging alarm  
Stationary skylight  
Storage compartment suitable for a lunch box cooler  
Sun visor  
Travel control pedals with removable hand levers

### Language display Multipro

Gauges for fuel level, engine coolant temperature and hydraulic oil temperature  
Indicator for engine dial setting  
Warning messages  
Filter/fluid change information  
Pre-start Level Check for hydraulic oil, engine oil and coolant  
Working hour information  
Clock with 10 day back-up battery

### Engine

Air Pre-Cleaner  
Automatic engine speed control  
Cat 3066 ATAAC diesel engine with 24V electric starting and air intake heater  
Cooling system, high ambient  
Muffler  
Water separator

### Undercarriage

Grease lubricated track-type undercarriage  
Heavy Duty bottom guarding  
Heavy Duty swivel guard  
Hydraulic track adjusters  
Idler and center section track guiding guards  
Shoes:  
600 mm triple grouser – 320C  
600 mm triple grouser – 320C L  
500 mm triple grouser – 320C LN  
Two-speed auto shift travel

### Hydraulics

Automatic work modes  
Auxiliary hydraulic valve  
Boom and stick regeneration circuits  
Fine swing Control  
Hydraulic neutralizer lever for all controls  
Oil cooler

### Electrical

Alternator, 50 amp  
Heavy Duty maintenance free batteries (2)  
Main shut-off switch  
Working lights:  
Boom, both sides  
Cab mounted, two  
Frame mounted, one

### Other Equipment

Automatic swing parking brake  
Auxiliary outlet port on tank  
Counterweight  
Door locks and caps locks with Caterpillar one-key security system  
Mirrors, frame and cab

## Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

### Operator Environment

Falling object guard  
Hydraulic modulation pedal  
Openable front windshield, 50/50 split  
Seat heater  
Straight travel pedal  
Visor rain protection

### Engine

Starting aid, cold weather

### Booms

Reach 5680 mm  
Mass Excavation 5200 mm  
Variable Adjustable 5460 mm

### Sticks

Sticks with 5680 mm Reach boom  
1900 mm  
2500 mm  
2900 mm  
Heavy duty stick with Reach boom  
2900 mm  
Sticks with 5200 mm ME boom and  
5460 mm VA boom  
1900 mm  
2400 mm  
2900 mm

### Buckets

Bucket linkage B and C family  
Ground engaging tools

### Undercarriage

Full length track guiding  
Sprocket track guiding  
Shoes (triple grouser):  
320C  
600 mm HD  
320C L  
600 mm HD  
700 mm  
700 mm HD  
800 mm  
900 mm  
320C LN  
600 mm

### Hydraulics

Tool Control-Pro, for one piece and two pieces boom machines; includes single and double action, one/two pump capability and medium pressure circuit  
Provides 5 preprogrammed tools and tools selection from the cab.  
Tool Control-Single Action, for one piece boom machines; includes one pump capability  
Provides 5 preprogrammed tools and tools selection from the cab.  
Boom lowering control device with Smart Boom™ and overload warning device  
Clamshell actuator  
Control group for Quick coupler  
Dedicated Cat quick coupler  
Fine Filtration Filter  
Hydraulic lines for boom and stick  
Installation of and setting for Cat hydro-mechanical tools: Multi-processors, hammers, sorting and demolition grapples, quick couplers  
Stick lowering control device  
Synthetic Ester based Bio hydraulic oil

### Electrical

Electric Refueling pump

### Other Equipment

Heavy counterweight (4420 kg) – 320C L

# 320C, 320C L and 320C LN Hydraulic Excavators

HEHH2667-1 (05/2003) hr

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

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