

# 320E L

## Hydraulic Excavator



### Engine

Engine Model	Cat® C6.6 ACERT™
Net Power – ISO 9249 (metric)	114 kW (155 hp)

### Drive

Maximum Travel Speed	5.6 km/h
Maximum Drawbar Pull	205 kN

### Weights

Minimum Weight	21 700 kg
Maximum Weight	23 500 kg



Introduction

Since its introduction in the 1990s, the 300 Series family of excavators has become the industry standard in general, quarry, and heavy construction applications. The all-new E Series and the 320E L will continue that trend-setting standard.

The 320E L meets today's U.S. EPA Tier 4 Interim emission standards and European Union emission standards. It is also built with several new fuel-saving and comfort-enabling features and benefits that will delight owners and operators.

If you are looking for more productivity and comfort, less fuel consumption and emissions, and easier and more sensible serviceability, you will find it in the all-new 320E L and the E Series family of excavators.

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# Engine

Reduced emissions, economical and reliable performance

## Cat® C6.6 ACERT Engine

The Cat C6.6 ACERT engine delivers more horsepower using significantly less fuel than the previous series engine.

### Emissions Solution

Equipped to meet U.S. EPA Tier 4 Interim emission standards, the 320E L's C6.6 ACERT engine features wall and thru flow filters that perform through the machine work cycle without operator intervention.

All nonroad European Union Stage IIIB diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 mg/kg sulfur or less. Cat® DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are also required. For further fluid specifications and guidelines, visit: <http://www.cat.com/cdal/files/214956/71/SEBU6251-13-secured.pdf>

### Biodiesel-Ready Fuel System

The C6.6 ACERT engine is equipped with an electronic-controlled high-pressure fuel system that includes an electric priming pump (lifting pump) and three-layer fuel hoses to allow the use of biodiesels up to B20 (biodiesel fuel 20% mixture meeting ASTM 6751 or EN 14214).

### Cooling System

The cooling system features an air-to-air aftercooler and A/C condenser that tilt up and swing out of the way for easy servicing; the fan automatically adjusts to ambient temperatures to help reduce fuel consumption and noise.

### Speed and Power Control

The 320E L features speed control to maintain a constant speed – regardless of load – to improve fuel economy. Two different power modes are offered: high power and economy. The operator can easily change between modes through the monitor or console switch to meet the needs for the job at hand – all to help manage and conserve fuel.





# Operator Station

Comfort and convenience to keep people productive



## Seats

All seats include air suspension, heating, a reclining back, upper and lower slide adjustments, height and tilt adjustments, and an optional cooling system to meet operator needs for comfort and productivity.

## Controls

The right and left joystick consoles can be adjusted to meet individual preferences, improving operator comfort and productivity during the course of a day. With the touch of a button, one-touch idle reduces engine speed to help save fuel; touch it again or move the joystick and the machine returns to normal operating level. The heavy lift mode increases machine system pressure to improve lift applications.

## Monitor

The 320E L is equipped with a 7" LCD (Liquid Crystal Display) monitor that's 40% bigger than the previous model's with higher resolution for better visibility. In addition to an improved keypad and added functionality, it's programmable to provide information in a choice of 42 languages to support today's diverse workforce.

An "Engine Shutdown Setting" accessible through the monitor allows owners and operators to specify how long the machine should idle before shutting down the engine, which can save significant amounts of fuel. The image of the rearview camera is displayed directly on the monitor. Up to two different camera images can be displayed on the screen at the same time.

## MP3-Ready Radio and Power Supply

The standard radio is equipped with a new auxiliary audio port for MP3 players. Two 12-volt power supply sockets are located near key storage areas for charging electronic devices.

## Storage

Storage spaces are located in the front, rear, and side consoles. A specific space near the auxiliary power supply holds MP3 players and cell phones. The drink holder accommodates large mugs with handles, and a shelf behind the seat stores large lunch or toolboxes.

## Automatic Climate Control

The climate control system features five air outlets with positive filtered ventilation, which makes working in the heat and cold much more pleasant.





# Hydraulics

Power to move more dirt, rock, and debris with speed and precision

## **Main Control Valve and Auxiliary Valves**

The 320E L uses a high-pressure system to tackle the toughest of work in short order. The machine features a highly efficient and simple back-to-back main control valve to improve fuel consumption; it also allows for greater tool versatility.

## **Swing Priority Circuit**

The swing priority circuit on the 320E L uses an electric valve that's operated by the machine's Electronic Control Module (ECM). Compared to using a hydraulic valve, an electric valve allows for more finely tuned control, which is critical during material loading.

## **Electric Boom Regeneration Valve**

This valve minimizes pump flow when the boom lowers down, which helps improve fuel efficiency. It is optimized for any dial speed setting being used by the operator, which results in optimized boom lowering speed for higher controllability.





# Structures and Undercarriage

Built to work in rugged environments

## Frame

The upper frame includes reinforced mountings to support the Roll-Over Protective Structure (ROPS) cab; the lower frame is reinforced to increase component durability.

## Undercarriage

Fixed gauge long undercarriage systems are available to support various work applications.

A segmented two-piece guiding guard is now offered to help maintain track alignment and improve performance in multiple applications.

# Front Linkage

Made for high stress and long service life

## Booms and Sticks

The 320E L is offered with a Heavy Duty reach boom that is designed to balance reach, digging force, and bucket capacity. It covers the vast majority of applications such as digging, loading, trenching, and working with hydraulic tools. Each is built with internal baffle plates for added durability, and each undergoes ultrasound inspection to ensure weld quality and reliability.

Large box-section structures with thick, multi-plate fabrications, castings, and forgings are used in high-stress areas such as the boom nose, boom foot, boom cylinder, and stick foot to improve durability.

The boom nose pin retention method is a durable captured flag design. Boom durability is improved with a number of plate thickness changes. Also, the front linkage pins' inner bearing surfaces are welded, and a self-lubricated bearing is used to extend service intervals and increase uptime.



# Work Tools

Dig, hammer, rip, and cut with confidence



An extensive range of Cat Work Tools for the 320E L includes buckets, compactors, grapples, multi-processors, scrap and demolition shears, rippers, crushers, pulverizers, hammers, and shears. Each is designed to optimize the versatility and performance of your machine.

## Quick Couplers

Quick couplers allow one person to change work tools in seconds for maximum performance and flexibility on a job site. One machine can move rapidly from task to task, and a fleet of similarly equipped machines can share a common work tool inventory.

## Cat Center-Lock™ Pin Grabber Coupler

Center-Lock is the pin grabber style coupler featuring a patented locking system. A highly visible lock clearly shows the operator when the coupler is engaged or disengaged from the bucket or work tool.

## Buckets

Cat buckets are designed as an integral part of the 320E L system and feature new geometry for better performance. The leading edge has been pushed forward, resulting in more efficient filling and better operator control for greatly improved productivity. Wear coverage in the corners and side cutter and sidebar protector coverage are improved. All benefits are captured in a new bucket line with a new bucket naming convention.

Caterpillar offers standard bucket categories for excavators. Each category is based on intended bucket durability when used in recommended application and material. Buckets are available as pin-on or can be used with a quick coupler.



### General Duty (GD)

GD buckets are for digging in low-impact, low-abrasion material such as dirt, loam, and mixed compositions of dirt and fine gravel.

### Heavy Duty (HD)

The most popular bucket style, HD buckets are a good starting point when digging conditions are not well known like a wide range of impact and abrasion conditions that include mixed dirt, clay, and rock.

### Severe Duty (SD)

SD buckets are for higher abrasion conditions such as well shot granite and caliche. Red area on bucket image illustrates additional protection against wear as compared to a GD bucket.

### Specialty Buckets

In addition to the standard four bucket categories, specialty bucket styles are available for the 320E L, each with a different purpose:

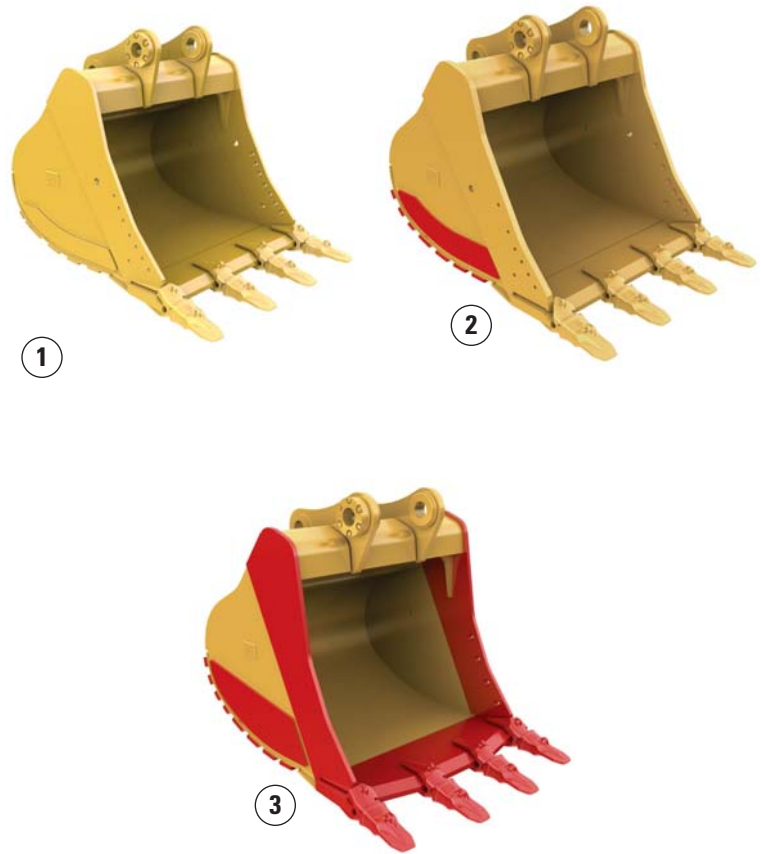
- Ditch Cleaning buckets for cleaning ditches, slope grading, and other finish work.
- Center-Lock Pin Grabber Performance buckets for maximum digging performance while keeping the versatility and convenience of a coupler.
- Wide Tip buckets for low impact material where leaving a smoother floor and minimal spillage are necessary.

### Hydraulic Kits

Caterpillar offers field-installed hydraulic kits that are uniquely designed to integrate Cat Work Tool attachments with Cat Excavators. Hoses and tubes are pre-made, pre-shaped, and pre-painted to make installation quick and easy.

### Comprehensive Product Support

All Cat Work Tools are backed up by a world-wide network of well-stocked parts depots and highly experienced service and support personnel.



1) General Duty 2) Heavy Duty 3) Severe Duty



# Integrated Technologies

Solutions that make work easier and more efficient

## Cat® Grade Control Depth and Slope

This optional system combines traditional machine control and guidance with standard factory-installed and calibrated components, making the system ready to go to work the moment it leaves the factory. The system utilizes internal front linkage sensors – well protected from the harsh working environment – to give operators real-time bucket tip position information through the cab monitor (1), which minimizes the need and cost for traditional grade checking and improves job site safety. It also helps the operator complete jobs in fewer cycles, which means less fuel use. Cat dealers can upgrade the system to full three-dimensional control by adding proven Cat AccuGrade™ positioning technologies, including GPS and Universal Total Station (UTS).

## Cat Product Link™

This deeply integrated machine monitoring system (2 and 3) is designed to help customers improve their overall fleet management effectiveness. Events and diagnostic codes as well as hours, fuel consumption, idle time, machine location, and other detailed information are transmitted to a secure web based application called VisionLink™, which uses powerful tools to communicate to users and dealers.



# Serviceability

Fast, easy and safe access built in

## Service Doors

Wide service doors and a one-piece hood provide easy access to the engine and cooling compartments. Both doors and hood feature enhanced hardware and a new screen design to help minimize debris entry.

## Compartments

The radiator, pump, and air cleaner compartments provide easy access to major components. The fresh air filter is located on the side of the cab to make it easy to reach and replace as needed.

## Maintenance

Tilt-up ATAAC and swing out A/C condenser for easy cleaning.

## Other Service Benefits

The water separator with water level sensor has a primary fuel filter element located in the pump compartment near ground level; the electric priming pump (lifting pump) is mounted before the primary filter base and is easy to service compared to a traditional hand-priming pump.

The fuel tank features a remote drain cock located in the pump compartment to make it easy to remove water and sediment during maintenance.

The engine oil check gauge is situated in front of the engine compartment for easy access, and a uniquely designed drain cock helps prevent spills. The engine oil filter is located in the pump compartment. The hydraulic valve lush on the engine valve does not need maintenance.



# Safety

Features to help protect people



## **ROPS Cab (ISO 12117)**

The ROPS-certified cab allows a Falling Object Guard Structure (FOGS) to be bolted directly to it.

## **Sound Proofing**

Improved sealing and cab roof lining lower noise levels inside the cab significantly during machine operation (-5 dB).

## **Anti-Skid Plates**

The surface of the upper structure and the top of the storage box area are covered with anti-skid plates to help prevent service personnel and operators from slipping during maintenance.

## **Steps, Hand and Guard Rails (ISO 2867)**

Steps on the track frame and storage box along with extended hand and guard rails (2) to the upper deck enable operators to securely work on the machine.

## **Time Delay Lights**

After the engine start key has been turned to the "OFF" position, cab and boom lights will illuminate to enhance visibility. The time delay can vary from 0 to 90 seconds, which can be set through the monitor.

## **High Intensity Discharge (HID) Lights**

Halogen lights are standard, but they can be upgraded to HID for greater visibility.

## **Windows**

The 70/30 split windshield features an upper window equipped with handles on the top and both sides so the operator can slide it to store in the ceiling. The lower window is removable and can be stored on the left wall of the cab shell.

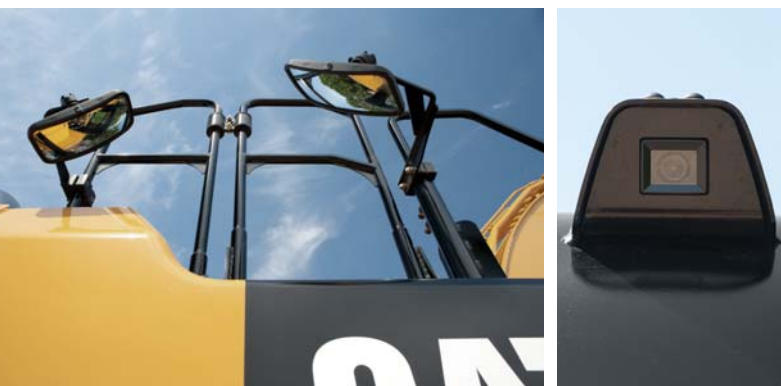
The large skylight provides great overhead visibility, excellent natural lighting, and good ventilation. The skylight can be opened completely to become an emergency exit.

## **Monitor Warning System**

The monitor is equipped with a buzzer that can warn operators of critical events so they can take any necessary action.

## **Rearview Camera and Mirrors (ISO 5006)**

The standard rearview camera is housed in the counterweight. The image projects through the cab monitor to give the operator a clear view of what is behind the machine. The mirrors and rearview camera are designed to meet the visibility regulations.







# Complete Customer Care

Service you can count on

## **Product Support**

Cat dealers utilize a worldwide parts network to maximize your machines' uptime. Plus they can help you save money with Cat remanufactured components.

## **Machine Selection**

What are the job requirements and machine attachments? What production is needed? Your Cat dealer can provide recommendations to help you make the right machine choices.

## **Purchase**

Consider financing options and day-to-day operating costs. Look at dealer services that can be included in the machine's cost to yield lower owning and operating costs over time.

## **Customer Support Agreements**

Cat dealers offer a variety of customer support agreements and work with you to develop a plan to meet your specific needs. These plans can cover the entire machine, including attachments, to help protect your investment.

## **Operation**

Improving operating techniques can boost your profits. Your Cat dealer has videos, literature, and other ideas to help you increase productivity. Caterpillar also offers simulators and certified operator training to help maximize the return on your investment.

## **Replacement**

Repair, rebuild, or replace? Your Cat dealer can help you evaluate the cost involved so you can make the best choice for your business.



# Sustainability

Generations ahead in every way

- The C6.6 ACERT engine, along with the Cat Clean Emission Module (CEM), meets U.S. EPA Tier 4 Interim emission standards and EU Stage IIIB emission standards.
- The 320E L maintains the same level of productivity, while burning significantly less fuel than the previous D Series model. This means more efficiency, less resources consumed, and fewer CO<sub>2</sub> emissions.
- The 320E L has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 mg/kg of sulfur or less or biodiesel (B20) fuel blended with ULSD.
- A ground-level overfill indicator rises when the hydraulic oil tank is full to help the operator avoid spilling.
- The QuickEvac™ feature ensures fast, easy, and secure changing of engine and hydraulic oil.
- The 320E L is built to be rebuilt with major structures and components capable of being remanufactured to reduce waste and replacement costs.
- An engine oil filter is designed so that it eliminates the need for painted metal cans and aluminum top plates. The cartridge-style spin-on housing enables the internal filter to be separated and replaced.
- The 320E L is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.



# 320E L Hydraulic Excavator Specifications

## Engine

Engine Model	Cat® C6.6 ACERT
Power – ISO 14396	112 kW
Power – ISO 14396 (metric)	152 hp
Power – ISO 14396 (imperial)	150 hp
Net Power – ISO 9249 (metric)	114 kW
Net Power – ISO 9249 (metric)	155 hp
Net Power – ISO 9249 (imperial)	152 hp
Bore	105 mm
Stroke	127 mm
Displacement	6.6 L

## Weights

Minimum Weight	21 700 kg
Maximum Weight	23 500 kg

## Hydraulic System

Main System – Maximum Flow (Total)	428 L/min
Swing System – Maximum Flow (x2)	214 L/min
Maximum Pressure – Equipment	35 000/38 000 kPa
Maximum Pressure – Travel	35 000 kPa
Maximum Pressure – Swing	25 000 kPa
Pilot System – Maximum Flow	24.3 L/min
Pilot System – Maximum Pressure	3920 kPa
Boom Cylinder – Bore	120 mm
Boom Cylinder – Stroke	1260 mm
Stick Cylinder – Bore	140 mm
Stick Cylinder – Stroke	1504 mm
B1 Bucket Cylinder – Bore	120 mm
B1 Bucket Cylinder – Stroke	1104 mm

## Drive

Maximum Travel Speed	5.6 km/h
Maximum Drawbar Pull	205 kN

## Swing Mechanism

Swing Speed	11.2 rpm
Swing Torque	61.8 kN·m

## Service Refill Capacities

Fuel Tank Capacity	410 L
Cooling System	30 L
Engine Oil (with filter)	23 L
Swing Drive	8 L
Final Drive (each)	8 L
Hydraulic System (including tank)	260 L
Hydraulic Tank	159 L

## Track

Number of Shoes (each side)	
Long Undercarriage	49 pieces
Number of Track Rollers (each side)	
Long Undercarriage	8 pieces
Number of Carrier Rollers (each side)	
Long Undercarriage	2 pieces

## Sound Performance

ISO 6396	
Operator Sound	71 dB(A)

ISO 6395	
Spectator Sound	103 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Exterior Sound – The labeled spectator sound power level is measured according to the test procedures and conditions specified in 2004/14/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 a noisy environment.

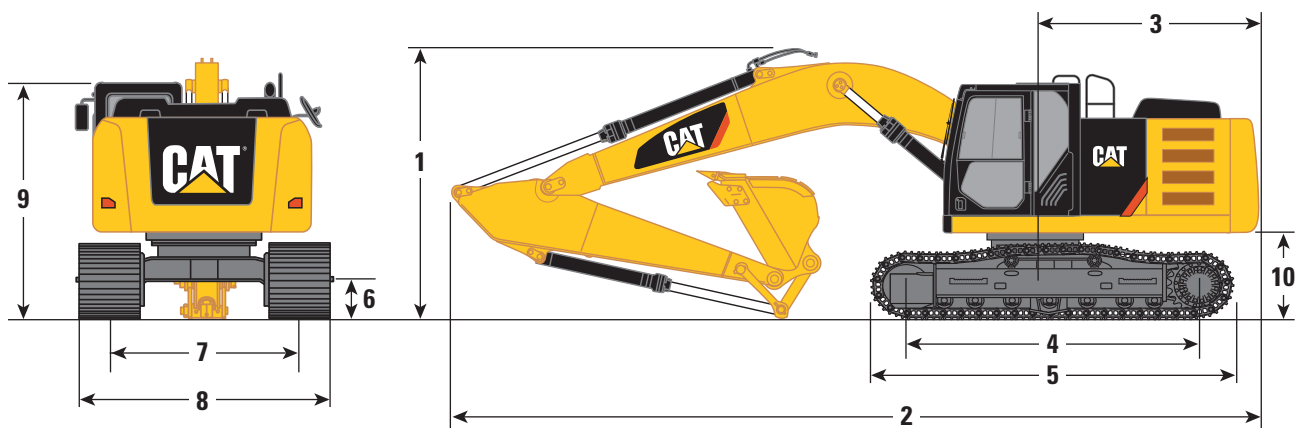
## Standards

Brakes	ISO 10265 2008
ROPS Cab	ISO 12117-2
Cab/ROPS	ISO 10262 1998

# 320E L Hydraulic Excavator Specifications

## 320E L Dimensions

All dimensions are approximate.



Stick	Reach Boom 5.7 m (18'8")	
	R2.9B1 (9'6")	R2.5B1 (8'2")
<b>1</b> Shipping Height without Guard Rail*	3130 mm	3050 mm
Shipping Height with Guard Rail	3160 mm	3160 mm
Shipping Height with Top Guard, without Guard Rail	3150 mm	3150 mm
<b>2</b> Shipping Length	9540 mm	9450 mm
<b>3</b> Tail Swing Radius	2830 mm	2830 mm
<b>4</b> Length to Center of Rollers	3650 mm	3650 mm
<b>5</b> Track Length	4460 mm	4460 mm
<b>6</b> Ground Clearance	450 mm	450 mm
<b>7</b> Track Gauge	2380 mm	2380 mm
<b>8</b> Transport Width		
600 mm (24") Shoes	2980 mm	2980 mm
700 mm (28") Shoes	3080 mm	3080 mm
790 mm (31") Shoes	3170 mm	3170 mm
<b>9</b> Cab Height	2960 mm	2960 mm
Cab Height with Top Guard	3150 mm	3150 mm
<b>10</b> Counterweight Clearance**	1020 mm	1020 mm
Bucket Capacity	1.3 m <sup>3</sup>	1.3 m <sup>3</sup>
Bucket Tip Radius	1560 mm	1560 mm

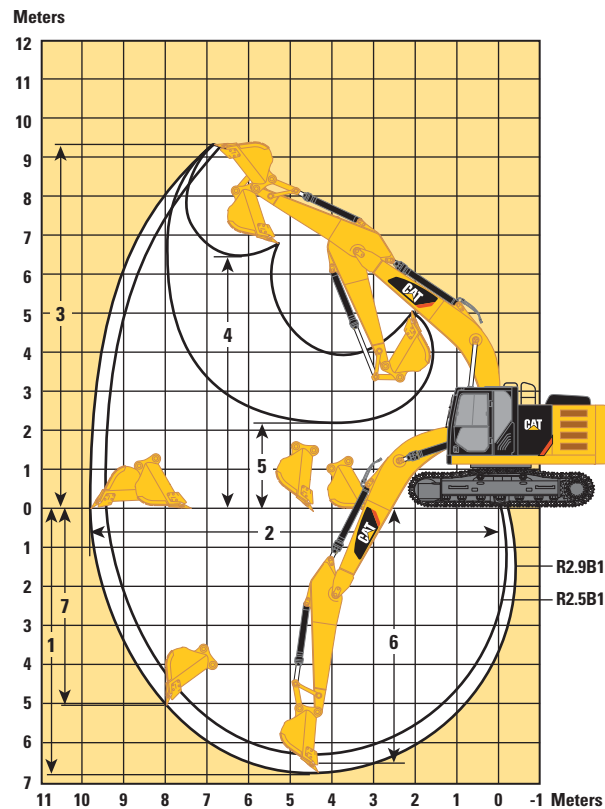
\*Including shoe lug height.

\*\*Without shoe lug height.



## 320E L Working Ranges

All dimensions are approximate.



Stick	Reach Boom 5.7 m (18'8")	
	R2.9B1 (9'6")	R2.5B1 (8'2")
Maximum Slope	35°/70%	35°/70%
1 Maximum Digging Depth	6720 mm	6290 mm
2 Maximum Reach at Ground Level	9860 mm	9450 mm
3 Maximum Cutting Height	9370 mm	9240 mm
4 Maximum Loading Height	6490 mm	6300 mm
5 Minimum Loading Height	2170 mm	2600 mm
6 Maximum Depth Cut for 2440 mm Level Bottom	6550 mm	6100 mm
7 Maximum Vertical Wall Digging Depth	5060 mm	5210 mm
Bucket Capacity	1.19 m <sup>3</sup>	1.3 m <sup>3</sup>
Bucket Tip Radius	1570 mm	1560 mm

# 320E L Hydraulic Excavator Specifications

## 320E L Operating Weight and Ground Pressure\*

	790 mm (31") Triple Grouser Shoes		700 mm (28") Triple Grouser Shoes		600 mm (24") Triple Grouser Shoes	
	kg	kPa	kg	kPa	kg	kPa
Reach Boom – 5.7 m (18'8")						
R2.9B1 (9'6") HD	22 200	35.1	21 900	39.1	21 600	44.9
R2.5B1 (8'2") HD	22 100	34.9	21 800	38.8	21 400	44.5

\*Actual weights will depend on final machine configuration.

## 320E L Major Component Weights

	kg
Base Machine (with boom cylinder, without counterweight, front linkage and track)	11 300
Long Undercarriage	7850
Counterweight	
3.55 mt	3550
Boom (includes lines, pins and stick cylinder)	
Reach Boom – 5.7 m (18'8")	1670
Stick (includes lines, pins and bucket cylinder)	
R2.9B1 (9'6") HD	680
R2.5B1 (8'2") HD	670
Track Shoe (Long/per two tracks)	
600 mm (24") Triple Grouser	2700
700 mm (28") Triple Grouser	3070
790 mm (31") Triple Grouser	3360

All weights are rounded up to nearest 10 kg except for buckets. Kg was rounded up separately so some of the kg do not match.

Base machine includes 75 kg operator weight, 90% fuel weight, and undercarriage with center guard.



## 320E L Bucket and Stick Forces

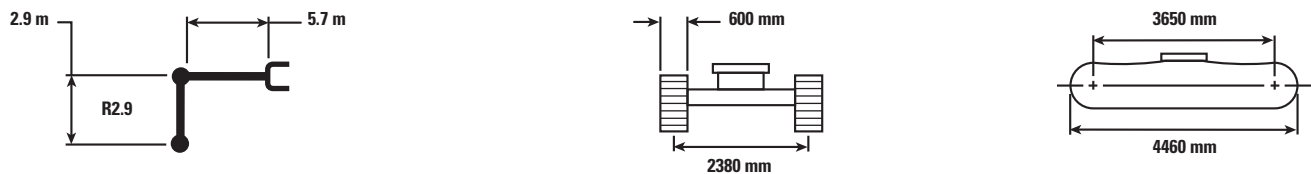
Stick	Reach Boom 5.7 m (18'8")	
	R2.9B1 (9'6")	R2.5B1 (8'2")
	kN	kN
General Duty		
Bucket Digging Force (ISO)	140.5	140.5
Stick Digging Force (ISO)	106.7	118.2
Heavy Duty		
Bucket Digging Force (ISO)	150.4	140.2
Stick Digging Force (ISO)	106.6	118.1

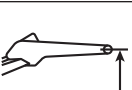














## Tip Radius

	Heavy Duty Reach Booms
General Duty	1745 mm
Heavy Duty	1779 mm
Severe Duty	1779 mm

# 320E L Hydraulic Excavator Specifications

## Reach Boom Lift Capacities – Counterweight: 3.55 mt



		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														
7.5 m	kg							*4950	*4950			*4300	*4300	6.15
6.0 m	kg							*5450	5300			*3950	3850	7.29
4.5 m	kg							*6000	5150	5600	3650	*3900	3300	7.99
3.0 m	kg					*8800	7500	*6900	4950	5500	3550	*4000	3000	8.36
1.5 m	kg					*10 650	7000	7500	4700	5400	3450	*4200	2900	8.45
0.0 m	kg			*6600	*6600	11 550	6750	7350	4550	5300	3350	4650	2950	8.26
−1.5 m	kg	*7050	*7050	*11 400	*11 400	11 450	6700	7250	4450	5250	3350	5000	3200	7.78
−3.0 m	kg	*12 100	*12 100	*15 600	13 000	*11 050	6750	7300	4500			5900	3750	6.95
−4.5 m	kg			*12 500	*12 500	*9000	6900					*6800	5150	5.60



ISO 10567



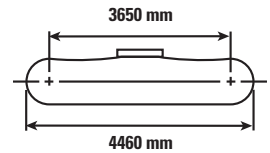
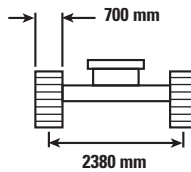
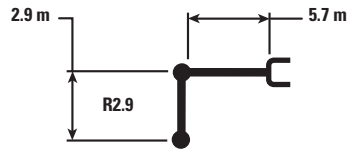
\*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with  $\pm 5\%$  for all available track shoes.

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



## Reach Boom Lift Capacities – Counterweight: 3.55 mt



		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
7.5 m	kg							*4950	*4950			*4300	*4300	6.15
6.0 m	kg							*5450	5400			*3950	3900	7.29
4.5 m	kg							*6000	5250	*5650	3700	*3900	3350	7.99
3.0 m	kg					*8800	7600	*6900	5000	5600	3600	*4000	3050	8.36
1.5 m	kg					*10 650	7150	7650	4800	5500	3500	*4200	2950	8.45
0.0 m	kg			*6600	*6600	*11 650	6850	7450	4600	5400	3400	*4650	3000	8.26
-1.5 m	kg	*7050	*7050	*11 400	*11 400	11 650	6800	7350	4550	5350	3400	5100	3250	7.78
-3.0 m	kg	*12 100	*12 100	*15 600	13 200	*11 050	6850	7400	4550			6000	3800	6.95
-4.5 m	kg			*12 500	*12 500	*9000	7050					*6800	5200	5.60



ISO 10567



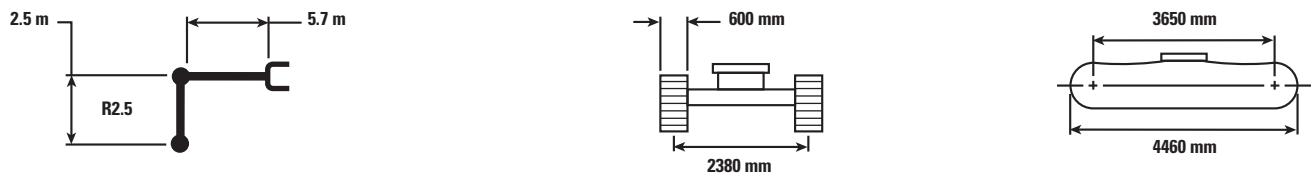
\*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

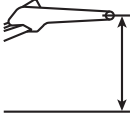
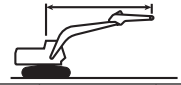










Lift capacity stays with  $\pm 5\%$  for all available track shoes.

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

# 320E L Hydraulic Excavator Specifications

## Reach Boom Lift Capacities – Counterweight: 3.55 mt



		3.0 m		4.5 m		6.0 m		7.5 m				
												m
7.5 m	kg									*4750	*4750	5.59
6.0 m	kg					*5350	5200			*4350	4200	6.83
4.5 m	kg			*6750	*6750	*5800	5050	*4800	3600	*4250	3500	7.57
3.0 m	kg			*8500	7350	*6550	4850	5450	3500	*4350	3200	7.96
1.5 m	kg			*10 050	6900	*7350	4650	5350	3400	*4650	3100	8.05
0.0 m	kg			*10 700	6700	7250	4500	5250	3350	4950	3150	7.86
–1.5 m	kg	*11 350	*11 350	*10 550	6650	7200	4450			5400	3450	7.35
–3.0 m	kg	*13 250	13 000	*9650	6750	*7100	4500			*6350	4100	6.46
–4.5 m	kg			*7200	7000					*6200	6100	4.98



ISO 10567



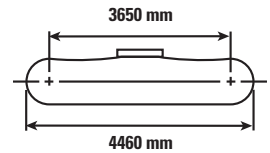
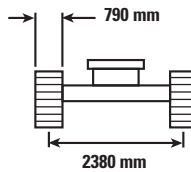
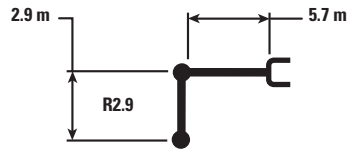
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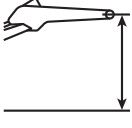













Lift capacity stays with ±5% for all available track shoes.

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



## Reach Boom Lift Capacities – Counterweight: 3.55 mt



		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg							*4950	*4950			*4300	*4300	6.15
6.0 m	kg							*5450	5450			*3950	3950	7.29
4.5 m	kg							*6000	5300	*5650	3750	*3900	3400	7.99
3.0 m	kg					*8800	7700	*6900	5050	5650	3650	*4000	3100	8.36
1.5 m	kg					*10 650	7200	7750	4850	5550	3550	*4200	3000	8.45
0.0 m	kg			*6600	*6600	*11 650	6950	7550	4700	5450	3450	*4650	3050	8.26
-1.5 m	kg	*7050	*7050	*11 400	*11 400	*11 800	6850	7450	4600	5400	3450	5150	3300	7.78
-3.0 m	kg	*12 100	*12 100	*15 600	13 350	*11 050	6900	7500	4650			6100	3850	6.95
-4.5 m	kg			*12 500	*12 500	*9000	7100					*6800	5250	5.60



ISO 10567



\*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with  $\pm 5\%$  for all available track shoes.

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

# 320E L Hydraulic Excavator Specifications

## 320E L Work Tool Offering Guide\*

Boom Type	Reach Boom 5.7 m (18'8")	
Stick Size	R2.9B1 (9'6") HD	R2.5B1 (8'2") HD
Hydraulic Hammer	H115Es H120Es H130Es	H115Es H120Es H130Es
Multi-Processor	MP15**	MP15
Pulverizer	P215	P215
Mobile Scrap and Demolition Shear	S320B*** S325B## S340B##	S320B S325B## S340B##
Compactor (Vibratory Plate)	CVP110	CVP110
Contractors' Grapple	G120B-G130B	G120B-G130B
Trash Grapple		
Thumbs		
Rakes		
Center-Lock Pin Grabber Coupler		
Dedicated Quick Coupler		

These work tools are available for the 320E L.  
Consult your Cat dealer for proper match.

\*Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

\*\*Pin-on or CW coupler.

\*\*\*Pin-on only.

#Over the front only.

##Boom mount.

## 320E L Bucket Specifications and Compatibility

	Linkage	Width	Capacity	Weight	Fill	Reach Boom – Heavy Lift	
		mm	m³	kg	%	R2.9 (9'6") HD	R2.5 (8'2") HD
With Center Lock Coupler							
General Duty (GD)	B	600	0.46	549	100%	●	●
	B	750	0.64	620	100%	●	●
	B	900	0.81	666	100%	●	●
	B	1200	1.19	800	100%	⊖	⊖
	B	1300	1.30	832	100%	○	○
	B	1400	1.43	867	100%	○	○
Heavy Duty (HD)	B	600	0.46	649	100%	●	●
	B	750	0.64	747	100%	●	●
	B	900	0.81	825	100%	●	●
	B	1050	1.00	879	100%	⊖	⊙
	B	1200	1.19	970	100%	○	⊖
	B	1300	1.30	960	100%	○	○
	B	1350	1.38	1051	100%	◇	○
Severe Duty (SD)	B	600	0.46	693	90%	●	●
	B	750	0.64	801	90%	●	●
	B	900	0.81	887	90%	●	●
	B	1050	1.00	962	90%	⊙	⊙
	B	1200	1.19	1051	90%	○	⊖
Maximum load with coupler (payload + bucket)					kg	2560	2685

### Maximum Material Density:

- 2100 kg/m<sup>3</sup>
- ⊙ 1800 kg/m<sup>3</sup>
- ⊖ 1500 kg/m<sup>3</sup>
- 1200 kg/m<sup>3</sup>
- ◇ 900 kg/m<sup>3</sup>

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

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.



# 320E L Standard Equipment

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

## ENGINE

- C6.6 diesel engine
- Biodiesel capable
- U.S. EPA Tier 4 Interim emission standards and European Union Stage IIIB compliant
- 2300 m altitude capability
- Electric priming pump (lifting pump)
- Automatic engine speed control
- Economy, standard and high power modes
- Two-speed travel
- Side-by-side cooling system (tilt-up ATAAC, swing-out A/C condenser)
- Radial seal air filter
- Primary filter with water separator and water separator indicator switch
- Standard battery, -18° C
- Screen fuel filter in fuel lines
- Primary fuel filter
- Secondary fuel filter
- Radiator screen

## HYDRAULIC SYSTEM

- Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump and circuit
- Boom lowering control device and stick lowering check valve
- Capability of installing Cat Bio hydraulic oil
- Quick drains, engine and hydraulic oil (QuickEvac)

## CAB

- Seat with air suspension, heating and cooling
- Air pre-filter
- Pressurized operator station with positive filtration
- Mirror package
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- Beverage holder
- Literature holder
- Two 12V stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with warning, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Laminated glass front upper window and tempered other windows
- Sunscreen
- Windshield wiper, lower with washer
- Radio with MP3 auxiliary audio port

## UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

## ELECTRICAL

- 80 amp alternator
- Circuit breaker
- Capability to electrically connect a beacon

## LIGHTS

- Boom light with time delay
- Exterior lights integrated into storage box

## SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Openable skylight for emergency exit
- Rearview camera
- Travel alarm

## TECHNOLOGY

- Product Link

## COUNTERWEIGHT

- 3.55 tons

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

### ENGINE

Electric refueling pump with auto shut off  
Cold weather battery, -32° C

### HYDRAULIC SYSTEM

Additional circuit  
Boom and stick lines  
High-pressure line  
Medium-pressure line  
Cat quick coupler line –  
high- and medium-pressure capable  
Electronic Control device,  
1/2P, one-way circuit  
Electronic Control device (Common),  
1/2P, common circuit

### CAB

Left foot switch

### UNDERCARRIAGE

600 mm (24") triple grouser shoes  
700 mm (28") triple grouser shoes  
790 mm (31") triple grouser shoes  
Full length track guiding guard  
Center track guiding guard  
Segmented (2 piece) track guiding guard

### FRONT LINKAGE

Center-Lock quick coupler  
Bucket linkage, B1 family with lifting eye  
Reach Boom 5.7 m (18'8")  
2.9 m (9'6") Heavy Duty sticks  
2.5 m (8'2") Extreme Service sticks

### LIGHTS

HID lights, cab mounted with time delay

### SECURITY

FOGS, bolt-on  
Guard, vandalism  
Cat MSS (anti-theft device)

### TECHNOLOGY

Cat Grade Control Depth and Slope

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **[www.cat.com](http://www.cat.com)**

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(ANZ)

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Featured machines in photos may include additional equipment.  
See your Cat dealer for available options.

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