320D L
Hydraulic Excavator

Cat® C6.4 Engine with ACERT™ Technology	
Net Power (ISO 9249) at 1800 rpm	103 kW/140 hp
Operating Weight	21 200 to 21 900 kg
Maximum Travel Speed	5.5 km/h
Maximum Reach at Ground Level	9830 mm
Maximum Digging Depth	6690 mm

320D L Hydraulic Excavator

The D Series incorporates innovations for improved performance and versatility.

C6.4 Engine with ACERT™ Technology

✔ ACERT™ Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions to meet EU Stage IIIA emission regulations, with exceptional performance capabilities and proven reliability. **pg. 4**

Operator Comfort

✔ Provides maximum space, wider visibility and easy access to switches. The monitor is a full-color graphical display that allows the operator to understand the machine information easily. Overall, the new cab provides a comfortable environment for the operator. **pg. 6**

Boom, Sticks and Linkage

One boom and two reach sticks are available to suit a variety of application conditions. **pg. 8**

Hydraulics

The hydraulic system has been designed to provide reliability and outstanding controllability. **pg. 5**

The Caterpillar 320D L excavator provides all the elements to give you the lowest cost to own and operate. At the end of the day, it all comes down to how much work you got done and how much did it cost you. Caterpillar and the 320D L offer you the tools to help lower your owning and operating costs.

✔ *New Feature*

Structures

Caterpillar® design and manufacturing techniques assure outstanding durability and service life from these important components. **pg. 7**

Work Tools

Caterpillar buckets, multi-processors, sorting and demolition grapples, hammers and quick couplers provide a total solution package to the end-user. **pg. 10**

Service and Maintenance

✔ Fast, easy service has been designed in with extended service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs. **pg. 9**

Complete Customer Support

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 configuration to eventual replacement. **pg. 9**

Engine

The Cat® C6.4 gives the 320D L exceptional power and fuel efficiency unmatched in the industry for consistently high performance in all applications.

Cat C6.4 Engine. The Cat C6.4 with ACERT Technology introduces a series of evolutionary, incremental improvements that provide breakthrough engine technology. The building blocks of ACERT Technology are fuel delivery, air management and electronic control. ACERT Technology optimizes engine performance while meeting EU Stage IIIA emission regulations. With its proven technology, robust components and precision manufacturing, you can count on this engine to power up at start time and keep working productively all shift long.

Performance. The 320D L, equipped with the C6.4 engine with ACERT Technology, provides 7% more power as compared to the 3066 TA in the 320C. The additional power delivers a speed and efficiency advantage in high production applications.

Automatic Engine Speed Control. The two-stage, one-touch control maximizes fuel efficiency and reduces sound levels.

ADEM™ A4 Engine Controller. The ADEM A4 electronic control module manages fuel delivery to get the best performance per liter of fuel used. The engine management system provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It tracks engine and machine conditions while keeping the engine operating at peak efficiency.

Electronic Control Module. The Electronic Control Module (ECM) works as the "brain" of the engine's control system, responding quickly to operating variables to maximize engine efficiency. Fully integrated with sensors in the engine's fuel, air, coolant, and exhaust systems, the ECM stores and relays information on conditions such as rpm, fuel consumption, and diagnostic information.

Fuel Delivery. The Cat C6.4 features electronic controls that govern the fuel injection system. Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the combustion cycle lowers combustion chamber temperatures, generating fewer emissions and optimizing fuel combustion. This translates into more work output for your fuel cost.

Cooling System. The cooling fan is directly driven from the engine. An electrically controlled viscous clutch fan reduces fan noise. The optimum fan speed is calculated based on the target engine speed, coolant temperature, hydraulic oil temperature and actual fan speed. When fan speed is reduced, there's more power available for other functions – and less fuel is burned.

Hydraulics

Cat® hydraulics deliver power and precise control to keep material moving.

Component Layout. To optimize efficiency of hydraulic performance, the hydraulic components are located close together, which reduces friction loss and pressure drops in the lines.

System Pressure. System pressure has been increased to 350 bar, which attributes to improved performance:

- Increased stick and bucket forces (up 7% higher than the 320C) to better handle those tight digging conditions
- More drawbar pull (206 kN) to provide more ability to climb slopes, easier spot turns and improved travel in poor underfoot conditions
- More lift capacity, generally over the front where you are generally hydraulically limited

Pilot System. The pilot pump is independent from the main pumps and controls the front linkage, swing and travel operations.

Hydraulic Cross Sensing System. The hydraulic cross sensing system utilizes each of two hydraulic pumps to 100 percent of engine power, under all operating conditions. This improves productivity with faster implement speeds and quicker, stronger pivot turns.

Boom and Stick Regeneration Circuit. Boom and stick regeneration circuit saves energy during boom-down and stick-in operation which increases efficiency, reduces cycle times and pressure loss for higher productivity, lower operating costs and increased fuel efficiency.

Auxiliary Hydraulic Valve. The auxiliary valve is standard on the 320D L. Control Circuits are available as attachments, allowing for operation of high and medium pressure tools such as shears, grapples, hammers, pulverizers, multi-processors and vibratory plate compactors.

Hydraulic Cylinder Snubbers. Snubbers are located at the rod-end of the boom cylinders and both ends of the stick cylinder to cushion shocks while reducing sound levels and extending component life.

Operator Comfort

Caterpillar offers the most intuitive and easy to operate excavators while providing great all around visibility and exceptional operator comfort.

Operator Station. The layout of the interior has been redesigned to maximize operator comfort and reduce operator fatigue.

- Frequently used switches have been relocated for easier access.
- Consoles and armrests have been redesigned for better comfort and adjustability.
- More seat options – choose from the standard mechanical suspension seat, or the optional air suspension seat with heater. Both provide excellent comfort.

Standard Cab Equipment. To enhance operator comfort and productivity, the cab includes a lighter, drink holder, coat hook, service meter, literature holder, magazine rack and storage compartment.

Joystick Control. Joystick controls have low lever effort and are designed to match the operator's natural wrist and arm position.

Hydraulic Activation Control Lever. For added safety, this lever must be in the operate position to activate the machine control functions.

Automatic Climate Control. Fully automatic climate control adjusts temperature and flow, and determines which air outlet is best in each situation with a touch of a button.

Cab Exterior. The exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance of fatigue and vibration.

Cab Mounts. The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing operator comfort.

Windows. All glass is affixed directly to the cab for excellent visibility eliminating window frames.

Wipers. Pillar-mounted wipers increase the operator's viewing area and offer continuous and intermittent modes.

Skylight. An enlarged skylight with sunshade provides excellent visibility and ventilation.

Monitor. The monitor is a full color Liquid Crystal Display that gives you vital operating and performance information, alerts in text, all in a simple, easy to navigate format.

Default Display. Three analog gauges, fuel level, hydraulic oil temperature and coolant temperature, are displayed in this area.

Main Menu. Four menu options to choose from:

- Settings – Adjust monitor settings, select work tool or choose video mode (when equipped with a camera).
- Maintenance – Displays service intervals and hours accumulated since last serviced.
- Performance – Displays machine performance attributes such as Engine Speed, Coolant and Hydraulic Oil Temperature.
- Service – Allows access to machine parameters for service intervals, diagnostic information and information related to the machines software.

Event Display. Machine information is displayed in this area with the icon and language.

Multi-information Display. This area is reserved for displaying various information which is convenient for the operator. The "CAT" logo is displayed when no information is available to be displayed.

Structures

320D L is designed to handle the most rugged operating conditions, while providing long life and value.

Robust Undercarriage. A solid foundation built tough to absorb the stresses of everyday work.

- Rollers and idlers are sealed and lubricated to extend service life.
- Track links are assembled and sealed with grease to decrease internal bushing wear and increase life by as much as 25%, when compared to dry seal undercarriages.
- Spring recoil system stroke has been increased to better relieve excess track tension, which can occur when material builds up between the track and sprocket.

Long Undercarriage. Allows for maximum stability and lift capacity. This long, wide, and sturdy under-carriage offers a very stable work platform.

Rugged Structures. Structural components and the undercarriage are the backbone of the machine's durability. Caterpillar places a lot of emphasis on the machine's durability during the designing and manufacturing of its excavators.

- Up to 95% of the structural welds are welded by robots, which achieve up to three times the penetration of a manual weld and improving overall durability of the machine.
- The 320D L's main frame utilizes high-tensile strength steel and a one-piece swing table, which improves strength and reliability.
- The carbody has a X-shaped, box section design to resist bending and twisting forces.
- Track roller frames are press-formed in a pentagonal shape for additional strength.

Boom, Sticks and Bucket Linkage

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.

Boom, Sticks and Attachments.
Designed for maximum flexibility, productivity and high efficiency on all jobs, the 320D L offers a wide range of configurations suitable for a variety of applications.

Reach Boom.
The boom has large cross-sections and internal baffle plates to provide long life durability. The reach boom features an optimum design that maximizes digging envelopes with two stick choices: R2.9B1 and R2.5B1 sticks.

Sticks. The sticks are made of high-tensile strength steel using a large box section design with interior baffle plates and an additional bottom guard.
The B1-family bucket associated with these sticks have enough capacity for excellent reach and depth in trenching and general construction applications.

- **R2.9B1.** This stick provides the most versatile front linkage, with regard to reach and bucket capacity and delivers good stability for hammer work.
- **R2.5B1.** Provides an excellent digging envelope with larger bucket sizes and provides more stability than the 2500 mm stick for hammer work.

Service and Maintenance

Simplified service and maintenance save you time and money.

Extended Service Intervals. 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 monitor screen inside the cab.

Ground Level Service. The design and layout of the 320D L was made with the service technician in mind. Many service locations are easily accessible at 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.

Capsule Filter. The hydraulic return filter, a capsule filter, is situated outside the hydraulic tank. This filter prevents contaminants from entering the system when hydraulic oil is changed and keeps the operation clean.

Diagnostics and Monitoring. The 320D L is equipped with S•O•S℠ sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Electronic Technician (ET) service tool is located behind the cab.

Anti-Skid Plate. Anti-skid plate covers top of storage box and upper structure to prevent slipping during maintenance.

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 on the front.

Radiator Compartment. The left rear service door allows easy access to the engine radiator, oil cooler and air-to-air aftercooler. Reserve tank and drain cock are attached to the radiator for simplified maintenance.

Complete Customer Support

Cat dealer services help you operate longer with lower costs.

Machine Selection. Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What production is needed? Your Cat dealer can provide recommendations.

Purchase. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Customer Support Agreements. Cat dealers offer a variety of product support agreements, and work with customers to develop a plan the best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer's investment.

Operation. Improving operating techniques can boost your profits. Your cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your investment.

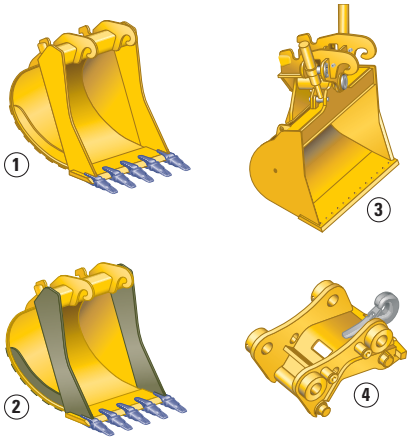
Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. You can save money with Cat remanufactured components.

Maintenance Services. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling, Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.

Replacement. Repair, rebuild or replace? Your Cat dealer can help you evaluate the cost involved so you can make the right choice.

Work Tools

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



1 Excavation (X)

2 Extreme Excavation (EX)

3 Ditch Cleaning

4 Quick Coupler

Work Tools. Caterpillar work tools are designed to function as an integral part of your excavator and to provide the best possible performance in your particular application. All work tools are performance-matched to Cat machines.

Quick Couplers. Quick couplers enable the operator to simply release one work tool and connect to another, making your hydraulic excavator highly versatile. Productivity also increases, as a carrier no longer needs to be idle between jobs. Caterpillar offers hydraulic and spindle quick coupler versions.

Buckets. Caterpillar offers a wide range of specialized buckets, each designed and tested to function as an integral part of your excavator. Buckets feature the new Caterpillar K Series™ Ground Engaging Tools.

Hammers. Cat hammer series deliver very high blow rates, increasing the productivity of your tool carriers in demolition and construction applications. Wide oil flow acceptance ranges make the Caterpillar hammers suitable for a wide range of carriers and provide a system solution from one safe source.

Orange Peel Grapples. The orange peel grapple is constructed of high-strength, wear-resistant steel, with a low and compact design that makes it ideal for dump clearance. There are several choices of tine and shell versions.

Multi-Grapples. The multi-grapple with unlimited left and right rotation is the ideal tool for stripping, sorting, handling and loading. The powerful closing force of the grab shells combined with fast opening/closing time ensures rapid cycle time which translates to more tons per hour.

Multi-Processors. Thanks to its single basic housing design, the multi-processor series of hydraulic demolition equipment makes it possible to use a range of jaw sets that can handle any demolition job. The multi-processor is the most versatile demolition tool on the market.

Vibratory Plate Compactors. Cat compactors are performance-matched to Cat machines, and integrate perfectly with the Cat hammer line – brackets and hydraulic kits are fully interchangeable between hammers and compactors.

Shears. Cat shears provide superior and effective scrap processing, and are highly productive in demolition environments. Shears are compatible with a matching Cat excavator, and bolt-on brackets are available for either stick or boom-mounted options.

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			
			Without Quick Coupler		With Quick Coupler CW-40, CW-40S	
			2500 mm	2920 mm	2500 mm	2920 mm
Hammers		H115 S, H120C S				
		H130 s				
Multi-Processors		MP15 CC, CR, PS, S				
		MP15 PP				N
		MP20 CC, CR, S		N	N	N
		MP20 PS, TS		N	N	N
Crushers and Pulverizers		VHC-30, VHP-30				
		VHC-40		N	N	N
Hydraulic Shear		S320				N
Mechanical Grapples		G112				
		G115			N	N
Multi-Grapples		G315B-D, G315B-R				
		G320B-D, G320B-R		N	N	N
Vibratory Plate Compactor		CVP110				
Clamshell Buckets (rehandling)		GOS-25 460, 520, 580			×	×
		GOS-25 750, 900			×	×
		GOS-25 980, 1140			×	×
		GOS-35 620, 700			×	×
		GOS-35 780, 1050			×	×
Orange Peel Grapples	5 tines	GSH15B 400, 500, 600			×	×
	4 tines	GSH15B 400, 500, 600			×	×

360° Working range
Over the front only
N Not recommended
× Not compatible
Max. Material Density 1200 kg/m³
Max. Material Density 1800 kg/m³
Max. Material Density 3000 kg/m³

Bucket Specifications

				Reach Boom 5680 mm					
				Without Quick Coupler			With Quick Coupler		
	Linkage	Width	Capacity (ISO)	Weight*			Weight*		
		mm	m³	kg	2500 mm	2920 mm	kg	2500 mm	2920 mm
Excavation (X)	B	600	0.44	564			529		
	B	750	0.59	593			557		
	B	1000	0.86	698			663		
	B	1200	1.08	784			748		
	B	1250	1.13	801			765		
	B	1300	1.19	819			783		
	B	1400	1.30	854			818		
	B	1500	1.41	889			853		
ExtremeExcavation (EX)	B	600	0.44	589			558		
	B	750	0.59	620			584		
	B	1250	1.13	827			792		
	B	1300	1.18	864			829		
	B	1400	1.30	901			866		
Maximum load in kg (payload plus bucket)					3210	2970		2980	2740

* Bucket weight including penetration plus tips

Max. Material Density 1200 kg/m³
Max. Material Density 1500 kg/m³
Material Density 1800 kg/m³ and more

Engine

Cat C6.4 engine with ACERT Technology	
Net Power at 1800 rpm	
ISO 9249	103 kW/140 hp
80/1269/EEC	103 kW/140 hp
Bore	102 mm
Stroke	130 mm
Displacement	6.4 liter

- All engine horsepower (hp) are metric including front page.
- The C6.4 engine meets EU Stage IIIA emission requirements.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- Full engine net power up to 2300 m altitude (engine derating required above 2300 m).

Drive

Maximum Travel Speed	5.5 km/h
Maximum Drawbar Pull	206 kN

Swing Mechanism

Swing Speed	11.5 rpm
Swing Torque	62 kNm

Sound

The dynamic exterior sound power level meets EU Directive 2005/88/EC.

Cab/FOGS

Cab/FOGS meets ISO 10262.

Hydraulic System

Main System	
Maximum flow	2 x 205 l/min
Maximum pressure	
Normal	350 bar
Travel	350 bar
Swing	250 bar
Pilot System	
Maximum flow	32 l/min
Maximum pressure	39 bar
Boom Cylinders	
Bore	120 mm
Stroke	1260 mm
Stick Cylinder	
Bore	140 mm
Stroke	1518 mm
B1 Family Bucket Cylinder	
Bore	120 mm
Stroke	1104 mm

Machine and Major Component Weights

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

		Reach boom 5680 mm	
Stick type		R2.5B1	R2.9B1
Stick length	mm	2500	2920
Bucket weight	kg	784	700
Bucket capacity	m^3	1.1	0.9
Bucket width/type	mm	1200/X	1000/X
Operating weight*			
600 mm shoes	kg	21 240	21 180
800 mm shoes	kg	21 910	21 850
Ground pressure			
600 mm shoes	bar	0.47	0.47
800 mm shoes	bar	0.36	0.36
Stick weight (with bucket cylinder)	kg	670	690
Boom weight (with stick cylinder)	kg	1380	
Upperstructure (without counterweight)	kg	6110	
Undercarriage			
600 mm shoes	kg	6650	
800 mm shoes	kg	7860	
Counterweight	kg	3900	

* With counterweight, quick coupler, bucket, operator and full fuel.

Track Shoes

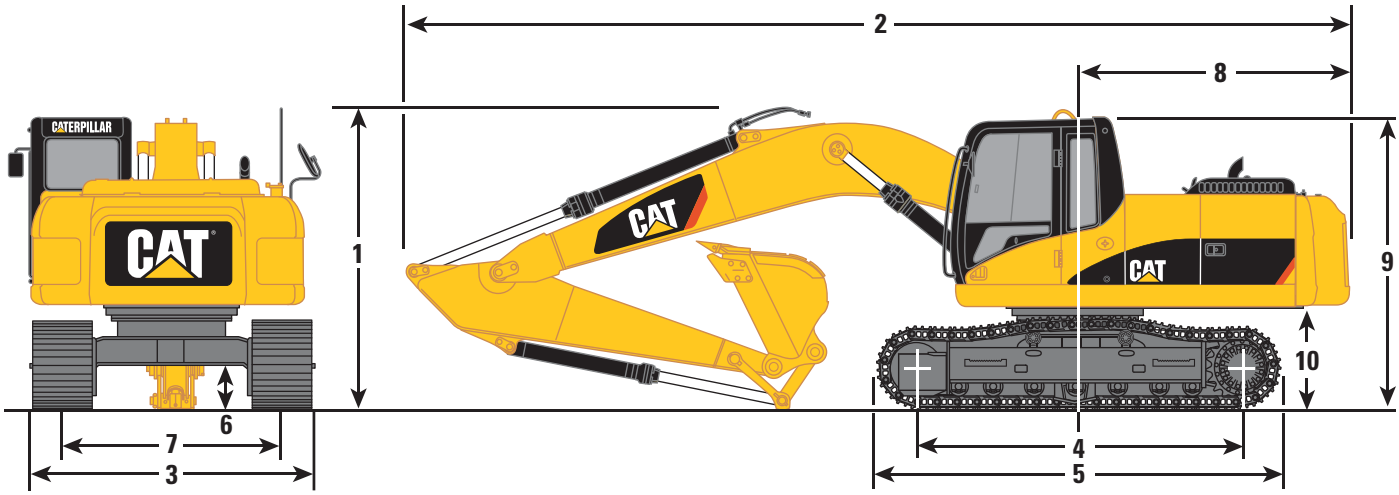
Triple grouser shoes 600 mm, 700 mm, 800 mm

Service Refill Capacities

	Liters
Fuel Tank	410
Cooling System	25
Diesel Engine	30
Swing Drive (each)	8
Final Drive (each)	8
Hydraulic system (including tank)	260
Hydraulic tank	120

Dimensions

All dimensions are approximate.

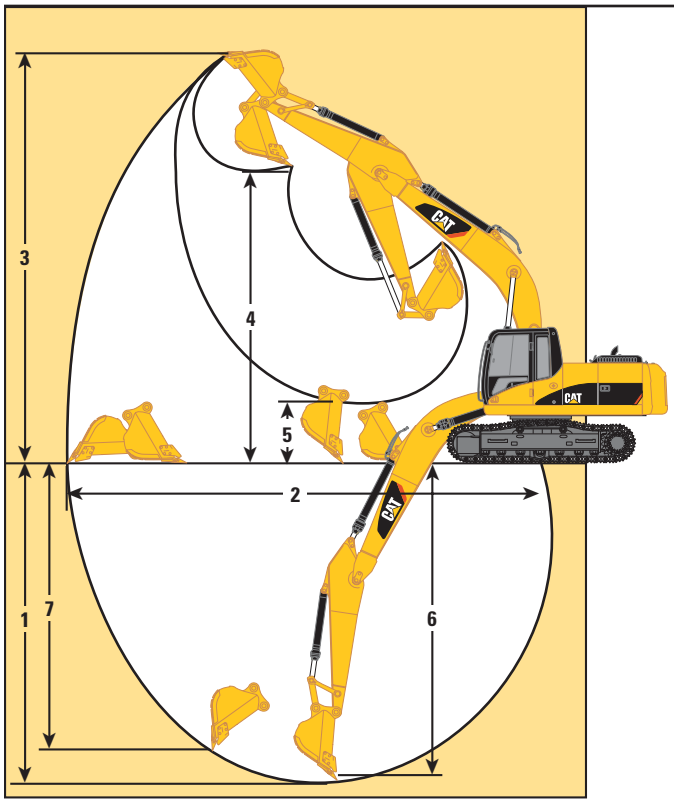


		mm
1	Shipping height (with bucket)	
	2500 mm stick	3050
	2920 mm stick	3120
2	Shipping length	
	2500 mm stick	9460
	2920 mm stick	9460

		mm
3	Transport width	
	600 mm shoes	2980
	800 mm shoes	3180
4	Length to centers of rollers	3650
5	Track length	4455

		mm
6	Ground clearance	450
7	Track gauge	2380
8	Tail swing radius	2750
9	Cab height	2950
10	Counterweight clearance	1020

Working Ranges – Reach Boom (5680 mm)



Stick Type		R2.5B1	R2.9B1
Stick Length	mm	2500	2920
1 Maximum Digging Depth	mm	6270	6690
2 Maximum Reach at Ground Level	mm	9430	9830
3 Maximum Cutting Height	mm	9320	9520
4 Maximum Loading Height	mm	6320	6520
5 Minimum Loading Height	mm	2620	2200
6 Maximum Digging Depth 2.5 m Level Bottom	mm	6080	6520
7 Maximum Vertical Wall Digging Depth	mm	5760	6180
Bucket Tip Radius	mm	1554	1554
Bucket Forces (ISO 6015)	kN	141	141
Stick Forces (ISO 6015)	kN	118	106

Lift Capacities – Reach Boom (5680 mm)

All weights are in kg, without bucket, with quick coupler.

Stick
2500 mm
Shoes
600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
7.5 m							*4100	*4100					*3800	*3800	6.06
6.0 m							*4850	*4850					*3500	*3500	7.21
4.5 m							*5300	4850	*5000	3350			*3450	3050	7.92
3.0 m					*7850	7100	*6150	4650	5200	3300			*3550	2800	8.29
1.5 m					*9550	6600	*7000	4400	5100	3150			*3800	2650	8.38
0 m			*5950	*5950	*10450	6350	7000	4250	5000	3100			*4250	2700	8.19
–1.5 m	*6600	*6600	*10700	*10700	*10500	6300	6900	4150	4950	3050			4800	2950	7.71
–3.0 m	*11450	*11450	*13900	12400	*9800	6350	6950	4200					5700	3500	6.87
–4.5 m			*11000	*11000	*7850	6550							*6050	4950	5.50

Stick
2920 mm
Shoes
600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
7.5 m													*3200	*3200	6.60
6.0 m									*3650	3450			*2950	*2950	7.67
4.5 m							*4950	4900	*4700	3400			*2900	2850	8.33
3.0 m			*11300	*11300	*7300	7250	*5800	4700	*5100	3300			*3000	2600	8.69
1.5 m					*9100	6750	*6700	4450	5100	3200			*3150	2500	8.77
0 m			*6700	*6700	*10250	6400	7000	4250	5000	3100			*3500	2550	8.59
–1.5 m	*6150	*6150	*10150	*10150	*10550	6250	6900	4150	4950	3050			*4100	2700	8.14
–3.0 m	*10100	*10100	*14650	12300	*10100	6300	6900	4150					5150	3150	7.34
–4.5 m			*12150	*12150	*8600	6450	*6000	4300					*5850	4200	6.09

Stick
2500 mm
Shoes
800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
7.5 m							*4100	*4100					*3800	*3800	6.06
6.0 m							*4850	*4850					*3500	*3500	7.21
4.5 m							*5300	5000	*5000	3450			*3450	3150	7.92
3.0 m					*7850	7300	*6150	4750	*5350	3400			*3550	2850	8.29
1.5 m					*9550	6800	*7000	4550	5250	3250			*3800	2750	8.38
0 m			*5950	*5950	*10450	6550	7200	4350	5150	3200			*4250	2800	8.19
–1.5 m	*6600	*6600	*10700	*10700	*10500	6450	7100	4300	5150	3150			4950	3050	7.71
–3.0 m	*11450	*11450	*13900	12750	*9800	6550	7150	4350					5900	3600	6.87
–4.5 m			*11000	*11000	*7850	6750							*6050	5100	5.50

Stick
2920 mm
Shoes
800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
7.5 m													*3200	*3200	6.60
6.0 m									*3650	3550			*2950	*2950	7.67
4.5 m							*4950	*4950	*4700	3500			*2900	*2900	8.33
3.0 m			*11300	*11300	*7300	*7300	*5800	4800	*5100	3400			*3000	2700	8.69
1.5 m					*9100	6950	*6700	4550	5250	3300			*3150	2600	8.77
0 m			*6700	*6700	*10250	6600	7200	4400	5150	3200			*3500	2600	8.59
–1.5 m	*6150	*6150	*10150	*10150	*10550	6450	7100	4300	5100	3150			*4100	2800	8.14
–3.0 m	*10100	*10100	*14650	12650	*10100	6500	7100	4300					*5250	3250	7.34
–4.5 m			*12150	*12150	*8600	6650	*6000	4450					*5850	4350	6.09

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.

Electrical

Alternator, 50 A
Base machine light (frame)
Electric start, 24 volt
Horn
Pre-start monitoring system – checks for low fluids (engine oil, coolant, hydraulic oil) prior to starting machine

Operator Environment

Air conditioner, heater, defroster with automatic climate control
Ashtray with 24 volt lighter
Beverage/cup holder
Bolt-on Falling object Guarding System (FOGS) capability
Cab Glass
  Openable and retractable two-piece front windshield
  Skylight, pop-up
Coat hook
Floor mat
Instrument panel and gauges
Joysticks, console mounted, pilot operated
Light, interior
Literature compartment
Monitor, full graphic color display
Neutral lever (lock out) for all controls
Positive filtered ventilation
Pressurized cab
Seat, suspension, with high back and head rest
Seat belt, retractable – 75 mm
Storage compartment suitable for lunch box cooler
Sun shade (for skylight)
Travel control pedals with removable hand levers
Windshield wiper and washer (upper and lower)

Engine/Power Train

C6.4 with ACERT™ Technology
  Air intake heater
  Air-to-air aftercooler (ATAAC)
  HEUI™ injectors
  2300 m altitude capability without derate
Automatic engine speed control with one touch low idle
Cooling
  Protection of 43°C to –18°C at 50% concentration
  Viscous clutch demand fan
Straight line travel
Two-speed auto-shift travel
Water separator in fuel line

Undercarriage

Long undercarriage
Grease lubricated track
Hydraulic track adjusters
Idler and center section track guards

Other Standard Equipment

Automatic swing parking brake
Auxiliary hydraulic valve
Capability of stackable valves (max of 3) for main valve
Capability of auxiliary circuit
Counterweight with lifting eyes
Door locks, cap locks and Caterpillar® one key security system
Fine swing control
Fully pressurized hydraulic system
Mirrors (frame-right, cab left)
S•O•S quick sampling valves for engine and hydraulic oil
Wave fin radiator
Wiring provision for Product Link

Optional Equipment

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

Front Linkage

Boom
  Reach 5680 mm
Stick
  Reach 2500 mm
  Reach 2920 mm
Bucket Linkage
  B1 Family
Boom Lowering Control Device
Stick Lowering Control Device

Electrical

Light, Boom – Right side
Lights, Cab mounted (2)
Machine Security System (MSS)
Power supply (12 V/5 A)
Product Link
Pump, electric refueling
Travel Alarm

Guarding

Falling Object Guarding System (FOGS)
Front windshield guard
  Full length, wire mesh
Track guiding guards
  Sprocket end, idler end guard
  Two-piece full length (center guard removed)

Operator Environment

AM/FM Radio with antenna and 2 speakers
Hand control pattern changer (ISO-SAE)
Rear window, secondary exit
Seat, high back with air suspension and heater
Sunscreen – roller type
Wiper, Lower windshield
Washer, windshield

Engine/Power Train

High ambient cooling
  For conditions up to 52°C
Prefilter, air
Starting, Cold weather package
  Two additional maintenance free batteries
  High capacity starter motor
  Heavy-duty cable
Water level indicator (fuel)

Undercarriage

Track shoes, 600, 700, 800 mm

Auxiliary Hydraulics

Hammer Circuit
  For single function (1 way/2 pump) hydraulic tools
Hydraulic pin grabber quick coupler and controller
Lines for booms and sticks
Thumb Circuit
  For double function (2 way/1 pump) hydraulic tools
Tool Control System
  Capability of adding medium pressure
  For single or double function (1 or 2 way, 1 or 2 pump) hydraulic tools
  Medium pressure circuit

320D L Hydraulic Excavators

HEHH3325-1 (04/2007) hr

CATERPILLAR®