320D/320D L

Hydraulic Excavators

Engine	
Engine Model	Cat® C6.6 ACERT™
Gross Power – SAE J1995	111 kW
Net Power – SAE J1349/ISO 9249	103 kW

Weights	
Operating Weight – Std. Undercarriage	20 660 kg-21 310 kg
Operating Weight – Long Undercarriage	21 830 kg-21 900 kg

320D/320D L Features

Engine and Hydraulics
A powerful Cat C6.6 engine combined with a highly efficient hydraulics system provides excellent machine performance with low fuel consumption.

Structures
Caterpillar design and manufacturing techniques assure outstanding durability and service life in the toughest applications.

Operator Station
Spacious cab with excellent visibility and easy to access switches. The monitor features a full-color graphical display which is user intuitive and highly visual with built-in pre-start machine checks. Overall, the new cab provides a comfortable working environment for efficient day-long operation.

Service and Maintenance
This machine has been designed so that routine service and maintenance can be completed quickly and easily to help reduce ownership costs. Convenient access points with extended intervals and advanced filtration keeps down-time to a minimum.

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.

Cat® 320D Total Solutions
Caterpillar and its extensive dealer network offer a wide variety of solutions designed to meet the unique needs of your business.

The D Series incorporates innovations for improved performance and versatility.

Contents

Engine

Clean, quiet operation and superior power with ACERT™ Technology.

Cat C6.6

The 320D is equipped with a Cat C6.6 ACERT™ engine which is powerful, strong and durable meeting all of your application needs. An ECO-mode feature helps to reduce fuel consumption by up to 15% for fuel conscious customers. ACERT engines incorporate proven, robust components and precision manufacturing you can count on for reliable and efficient day-long operation.

Automatic Engine Speed Control

Automatic Engine Control is activated during no-load or light-load conditions and reduces engine speed to minimize fuel consumption.

Air Cleaner

The radial seal air filter features a double-layered filter core for more efficient filtration and is located in a compartment behind the cab. A warning is displayed on the monitor when dust accumulates above a preset level.

Filtration System

The C6.6 engine features an improved filtration system ensuring good reliability to fuel injection system components.

Low Sound, Low Vibration

The Cat C6.6 improves operator comfort by reducing sound and vibration.

Hydraulics

High efficiency and performance with low effort and precise control.

Hydraulic System

Hydraulic system pressure is 35 000 kPa, with 205 L/min flow from each of the two hydraulic pumps for increased digging performance and productivity.

Pilot System

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

Component Layout

The 320D hydraulic system and component locations have been designed to provide a high level of system efficiency. The main pumps, control valves and hydraulic tank are located close together to allow for shorter tubes and lines between components, which reduce friction loss, and pressure drops.

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.

Auxiliary Hydraulic Valve

Control Circuits are available as attachments which improves versatility. They allow operation of high and medium pressure tools such as shears, grapples, hammers, pulverizers, multi-processors and vibratory plate compactors.

Boom and Stick Regeneration Circuit

Boom and stick regeneration circuits save energy during boom-down and stick-in operations which increases efficiency, reduces cycle times and pressure loss for higher productivity, lower operating costs and increased fuel efficiency.

Hydraulic Cylinder Snubbers

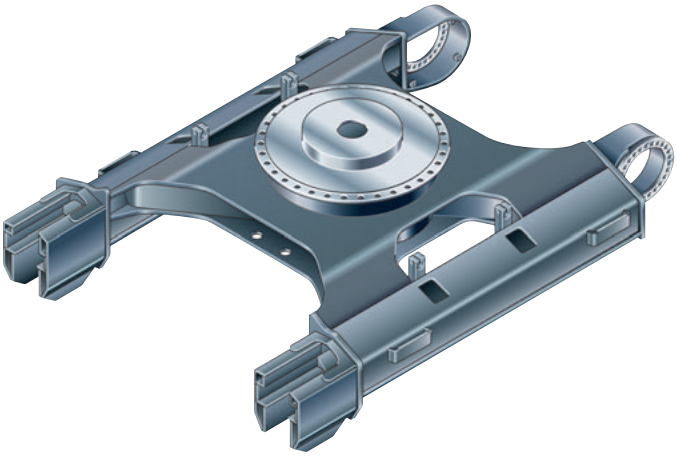
Snubbers are located at the rod-end of the boom cylinders and both ends of the stick cylinders to cushion shocks while reducing sound levels and extending component life.

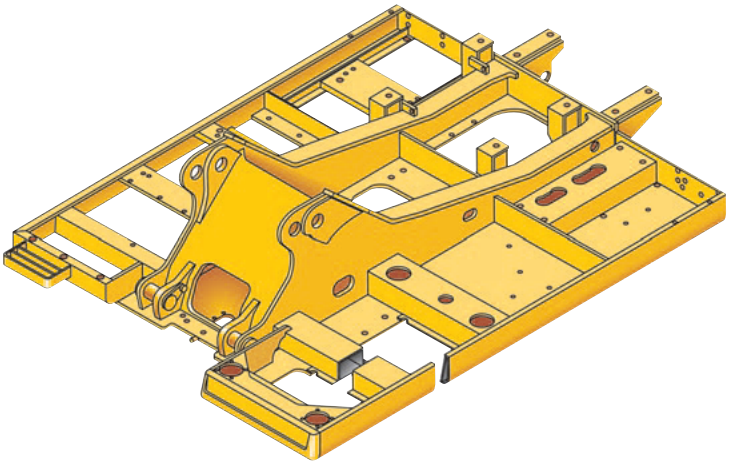
Hydraulic Activation Control Lever

For added safety, this lever must be in the operate position to activate all machine hydraulic control functions.

Climate Control

Positive filtered ventilation with a pressurized cab is standard. Fresh air or re-circulated air can be selected with a switch on the left console.





Structures

Cat® excavators are designed to handle the most rugged operating conditions while providing long life and value.

Carbody Design and Track Roller Frames

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

Rollers and Idlers

Sealed and lubricated track rollers, carrier rollers, and idlers provide excellent service life, to keep the machine in the field longer.

Standard Undercarriage

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

Long Undercarriage

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

Operator Station

Designed for comfort, simple and easy operation, the 320D allows the operator to focus on production.

Operator Station

The ergonomically designed operator station is spacious, quiet and comfortable, assuring high productivity during a long work day. All switches are located on the right-hand console for convenient access.

Monitor

The monitor is a full color 400×234 pixels Liquid Crystal Display (LCD) graphic display. The monitor angle can be adjusted to minimize sun glare and has the capability of displaying information in Chinese and twenty-six other languages.

Joystick Control

Low effort, pilot operated joystick controls are designed to match the operator's natural wrist and arm position for maximum comfort and minimum fatigue.

Seat

The standard suspension seat provides a variety of adjustments to suit the operator's size and weight including fore/aft, height and weight. Wide adjustable armrests and a retractable seat belt are also included.

Console

The consoles feature a simple, functional design to reduce operator fatigue, ease of switch operation and excellent visibility. Both consoles have attached armrests with height adjustments.

Cab Exterior

The cab shell features thick steel tubing along the bottom perimeter of the cab, improving resistance to fatigue and vibration.

Cab Mounts

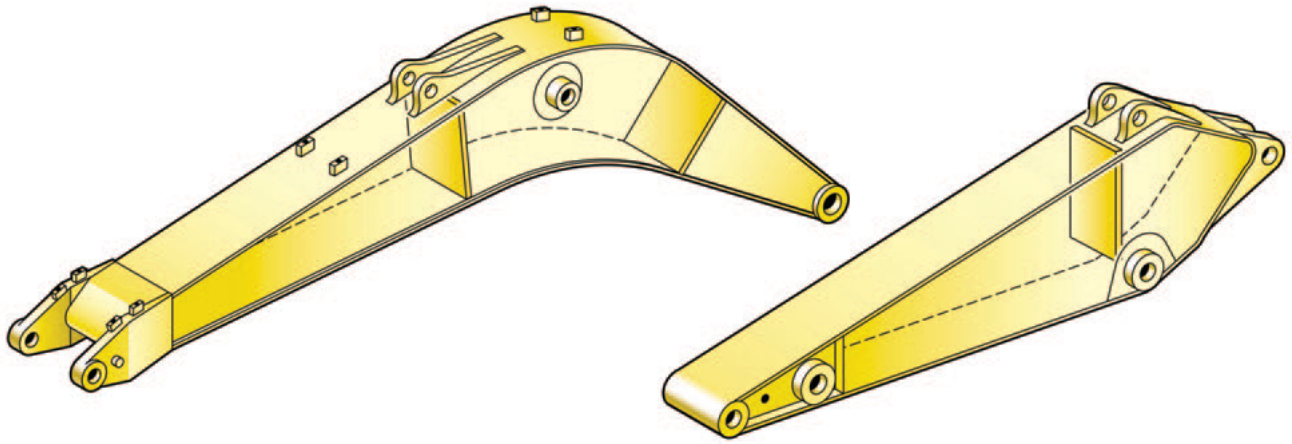
The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing operator comfort.

Windows

To maximize visibility, all glass is affixed directly to the cab, eliminating window frames. The upper front windshield opens, closes and stores on the roof above the operator with a one-touch action release system.

Wipers

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



Booms and Sticks

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

Booms, Sticks and Attachments

Cat front linkages are designed for maximum flexibility, productivity and high efficiency what ever the application.

Heavy Duty Reach Boom

The heavy duty reach boom features an optimum design that maximizes digging envelopes with two stick choices, it also incorporates a large cross-section and internal baffle plates for long life and durability.

R2.5B1 and R2.9B1 stick options are also heavy duty and are made of high tensile strength steel using a large box section design with interior baffle plates and an additional bottom guard.

Super Long Reach Front

This super long reach front option provides up to 15.2 m of reach and is designed for light duty applications requiring an extra large working envelope.

Work Tools – Attachments

The 320D has an extensive selection of work tools to optimize machine performance.

Cat Buckets and Cat Ground Engaging Tools (GET) are designed and matched to the machine ensuring optimal performance and fuel consumption. They are built to Caterpillar specifications guaranteeing quality and durability, whatever the application.

General Duty Buckets

General Duty buckets have been designed for machines digging in low-impact, moderately abrasive materials such as dirt, loam, gravel and clay.

Heavy-Duty Buckets

Heavy-duty (HD) buckets are used for a wide range of moderately abrasive applications such as mixed dirt, clay and rock. HD buckets have the best loading and dumping characteristics and will empty easier in cohesive material. These feature a more robust construction than GP buckets.

Severe Duty Buckets

Severe duty are best suited to highly abrasive applications such as shot rock and granite.

Tool Control System

The optional tool control system maximizes work tool productivity by configuring hydraulic flow, pressure, and operator controls to match a specific work tool. System versatility enables a wide range of tools to be used.

Cat Hammers

Cat B Series Breakers feature high performance and reliability and have been specifically designed to meet the differing needs of Chinese customers. They are the ideal choice for demolition, quarry, mining, general construction and many other applications.

Service and Maintenance

Simplified service and maintenance features save you time and money.

Ground Level Service

The design and layout of the 320D was made with the service technician in mind. Many service locations are easily accessible at ground level allowing service and maintenance to get completed quickly and efficiently.

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.

Pump Compartment

A service door on the right side of the upper structure allows ground-level access to the pump, pilot filter, and water separator with primary fuel filter.

Radiator Compartment

The left rear service door allows easy access to the engine radiator, oil cooler, air-to-air-after-cooler, 2nd and 3rd fuel filters and fuel cooler. A reserve tank and drain cock are attached to the radiator for simplified maintenance.

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.

Greasing Points

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

Fan Guard

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

Anti-Skid Plate

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

Diagnostics and Monitoring

The 320D is equipped with S·O·S^{SM} sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Cat Electronic Technician (Cat ET) service tool is located behind the cab.

Extended Service Interval

320D service and maintenance intervals have been extended to reduce machine service time and increase machine availability.

Complete Customer Support

Cat dealer services help you operate longer with lower costs.

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 down time. Save money with remanufactured components.

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.

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.

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.

Replacement

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

Cat® 320D Total Solutions

Your excavator is more than a piece of equipment; it's your livelihood.

More than a Machine

The Cat 320D 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 offer you the tools to help lower your owning and operating costs.

Better Fuel Efficiency

Less fuel consumed per ton of earth/material moved. In addition, use of the Economy mode can result in as much as an additional 15% less fuel consumption.

More Performance

Finish the job faster with high hydraulic horsepower.

Proven Reliability and Durability

Maximizes your up-time and provides long life and value. The 320D has endured thousands of hours of operation, through comprehensive field follow program, in a variety of applications throughout the world.

Ease of Operation

Takes the complication out of operating. The monitor gives you vital operating and performance information, alerts in text, all in a simple, easy to navigate format.

Better Serviceability

Making it easier to perform service and routine maintenance. The 320D sets itself apart with the level of ground level access and maintenance features.

Extended Maintenance Intervals

Less out of pocket expenses over the life of the machine. The 320D provides industry leading maintenance intervals that provide less cost over the life of the machine.

More Solutions

Caterpillar and its dealer network have the ability to match a solution best suited to your needs. Your Cat dealer helps you operate longer with lower costs, by assisting you with a plan that can cover everything from machine configuration to eventual replacement.

320D/320D L Specifications

Engine

Engine Model	Cat® C6.6 ACERT™
Gross Power – SAE J1995	111 kW
Net Power – SAE J1349/ISO 9249	103 kW
Bore	105 mm
Stroke	127 mm
Displacement	6.6 L

- The Cat C6.6 meets exhaust emissions equivalent to China Tier 2 engine emissions and Stage 1 sound regulation.
- 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 needed up to 3000 m.

Weights

Operating Weight – Std. Undercarriage	20 660 kg-21 310 kg

- Reach Boom (HD), R2.9 Stick (HD), 790 mm Track Shoes and 1.0 m^3 Bucket

Operating Weight – Long Undercarriage	21 830 kg-21 900 kg

- Reach Boom (HD), R2.9 Stick (HD), 790 mm Track Shoes and 1.0 m^3 Bucket

Operating Weight – 320D GC	20 160 kg

- Reach Boom, R2.9 Stick, 600 mm Track Shoes and 0.9 m^3 Bucket

Service Refill Capacities

Fuel Tank Capacity	410 L
Cooling System	29 L
Engine Oil	22 L
Swing Drive	8 L
Final Drive (each)	8 L
Hydraulic System (including tank)	260 L
Hydraulic Tank	120 L

Swing Mechanism

Swing Speed	11.5 rpm
Swing Torque	62 kN·m

Drive

Maximum Drawbar Pull	206 kN
Maximum Travel Speed	5.6 km/L

Hydraulic System

Main Implement System – Maximum Flow (2x)	205 L/min
Maximum Pressure – Equipment	35 000 kPa
Maximum Pressure – Travel	35 000 kPa
Maximum Pressure – Swing	25 000 kPa
Pilot System – Maximum Flow	32.4 L/min
Pilot System – Maximum Pressure	3900 kPa
Boom Cylinder – Bore	120 mm
Boom Cylinder – Stroke	1260 mm
Stick Cylinder – Bore	140 mm
Stick Cylinder – Stroke	1504 mm
B1 Family Bucket Cylinder – Bore	120 mm
B1 Family Bucket Cylinder – Stroke	1104 mm

Sound Performance

Performance

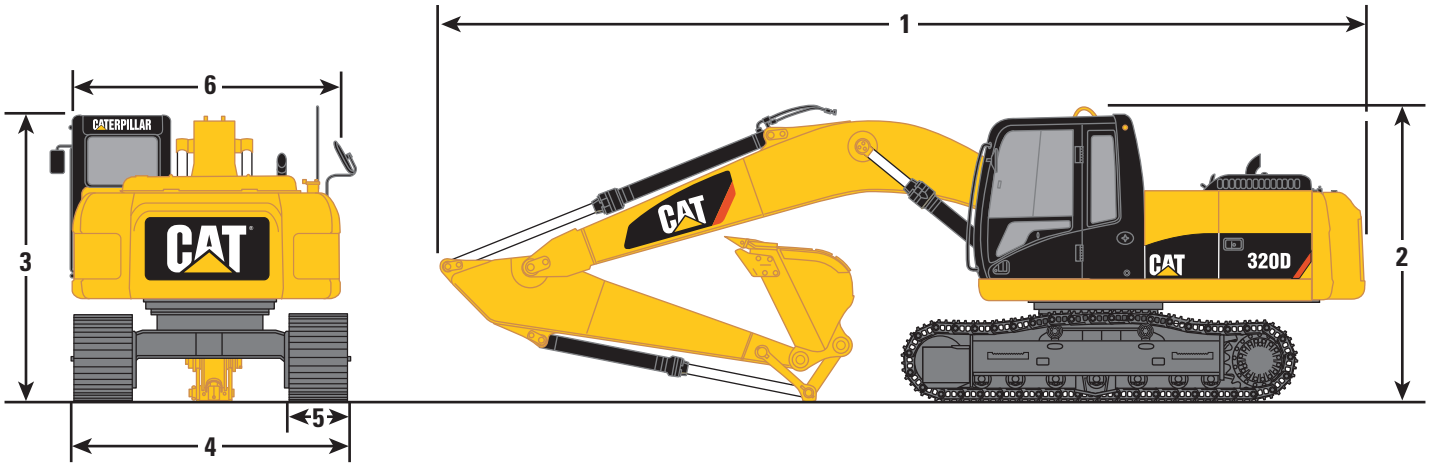
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to China sound regulation Stage 1 requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

Standards

Brakes	ISO 10265 2008

Dimensions

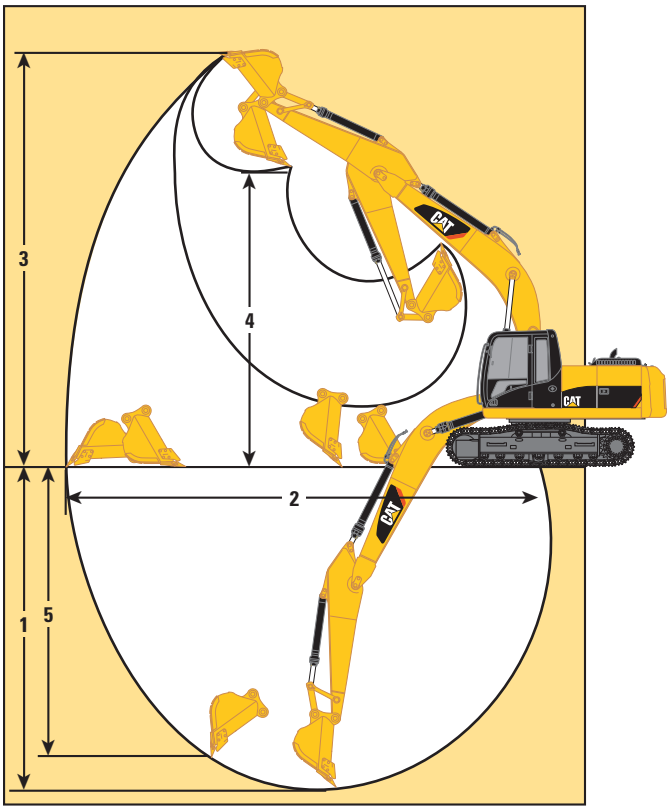
All dimensions are approximate.



Boom Options	320D Reach Boom (HD)	320D Reach Boom (HD)	320D Reach Boom (HD)	320D L Reach Boom (HD)	320D L Reach Boom (HD)
Stick	**R2.9 (HD)**	**R2.9 (HD)**	**R2.5 (HD)**	**R2.9 (HD)**	**R2.5 (HD)**
Bucket	**1.0 m^3**	**1.0 m^3**	**1.0 m^3**	**1.0 m^3**	**1.0 m^3**
Shoe	**600 mm**	**790 mm**	**600 mm**	**790 mm**	**790 mm**
Undercarriage	**STD**	**STD**	**STD**	**LC**	**LC**
Approximate Weight	20 730 kg	21 310 kg	20 660 kg	21 900 kg	21 830 kg
1 Overall Length	9460 mm	9460 mm	9460 mm	9460 mm	9460 mm
2 Overall Height	3030 mm	3030 mm	3050 mm	3030 mm	3030 mm
3 Height of Cab	2950 mm	2950 mm	2950 mm	2950 mm	2950 mm
4 Overall Width	2800 mm	2970 mm	2800 mm	3170 mm	3170 mm
5 Track Shoe Width	600 mm	790 mm	600 mm	790 mm	790 mm
6 Width of Upper Structure	2740 mm	2740 mm	2740 mm	2740 mm	2740 mm

Working Ranges

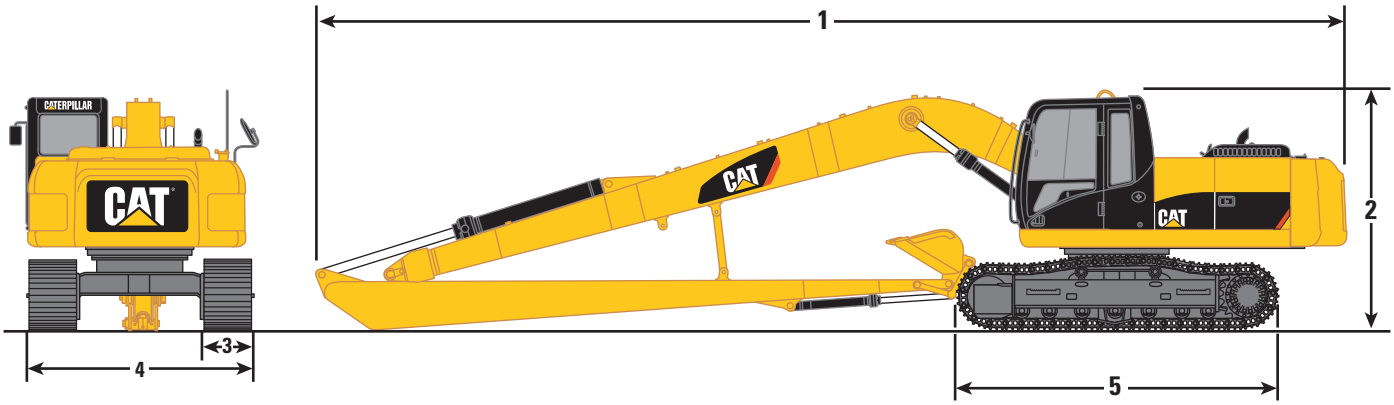
All dimensions are approximate.



Boom Options	Reach Boom 5.7 m (HD)	Reach Boom 5.7 m (HD)
Stick	**2.9 m (HD)**	**2.5 m (HD)**
Bucket	**1.0 m^3**	**1.0 m^3**
1 Maximum Digging Depth	6720 mm	6300 mm
2 Maximum Reach at Ground Level	10 020 mm	9630 mm
3 Maximum Cutting Height	9490 mm	9290 mm
4 Maximum Loading Height	6490 mm	6290 mm
5 Maximum Digging (Vertical Wall)	6060 mm	5650 mm

Dimensions

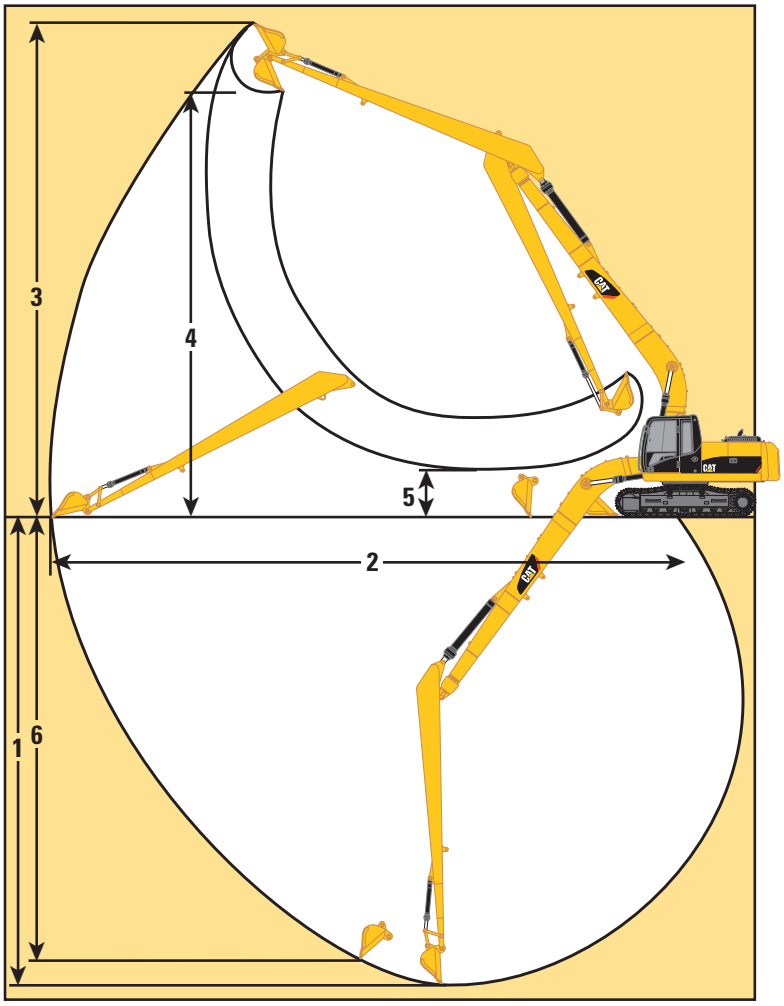
All dimensions are approximate.



Boom Options	320D L Super Long Reach Boom 8.85 m
Stick	**6.28 m**
Bucket	**0.45 m³**
Shoe	**790 mm TG**
Approximate Weight	22 649 kg
1 Overall Length	12 680 mm
2 Overall Height	3190 mm
3 Track Shoe Width	790 mm
4 Overall Width	2980 mm
5 Length of Track	4455 mm

Working Ranges

All dimensions are approximate.



Super Long Reach Working Ranges			
Boom Options		**Super Long Reach Boom 8.85 m**	
Stick Options		**6.28 m**	
Bucket Options		**Excavation**	**Ditch Cleaning**
		0.45 m³	**0.60 m³**
1 Maximum Digging Depth		11 880 mm	11 750 mm
2 Maximum Reach at Ground Level		15 720 mm	15 590 mm
3 Maximum Cutting Height		13 290 mm	13 230 mm
4 Maximum Loading Height		11 010 mm	11 140 mm
5 Minimum Loading Height		1970 mm	2090 mm
6 Maximum Vertical Wall Digging Depth		10 700 mm	11 310 mm
Bucket Digging Force	(ISO)	60 kN	60 kN
Stick Digging Force	(ISO)	46 kN	46 kN

Major Component Weights

Base machine with counterweight (without front linkage)	
Standard Undercarriage with 600 mm triple grouser shoes	16 660 kg
Standard Undercarriage with 790 mm triple grouser shoes	17 250 kg
Long Undercarriage with 600 mm triple grouser shoes	17 250 kg
Long Undercarriage with 790 mm triple grouser shoes	17 840 kg
Upper Structure without counterweight	6230 kg
Counterweight	3710 kg
Boom	
Two Boom Cylinders (each)	175 kg
Boom 5.7 m Heavy Duty Reach (includes lines, pins, and stick cylinder)	2020 kg
Stick Cylinder	280 kg
Stick	
Stick R2.9B1 Heavy Duty (includes lines, pins, bucket cylinder and linkage)	1120 kg
Stick R2.5B1 Heavy Duty (includes lines, pins, bucket cylinder and linkage)	1090 kg
Bucket Cylinder	160 kg
Bucket Linkage	140 kg

320D Bucket Specifications

	Capacity	Width	Tip Radius	Weight (with tips)	Teeth	Heavy Duty Reach Boom Stick	
	m^3	mm	mm	kg	Qty	R2.9 HD	R2.5 HD
B1 Buckets							
General Duty	1.0	1232	1559	828	6	●	●
	1.14	1360	1559	902	6	●	●
Heavy Duty	1.0	1080	1556	886	5	○	●
	1.2	1232	1556	967	6	—	○
Severe Duty (SD)	1.0	1080	1556	971	5	○	●

320D L Bucket Specifications

	Capacity	Width	Tip Radius	Weight (with tips)	Teeth	Heavy Duty Reach Boom Stick	
	m^3	mm	mm	kg	Qty	R2.9 HD	R2.5 HD
B1 Buckets							
General Duty	1.0	1232	1559	828	6	●	●
Heavy Duty	1.0	1080	1556	886	5	●	●
	1.2	1232	1556	967	6	—	●
Severe Duty (SD)	1.0	1080	1556	971	5	●	●

Assumptions for maximum material density rating:

1. Front linkage fully extended at ground line
2. Bucket curled
3. 100% bucket fill factor

● 1800 kg/m^3 max material density

○ 1500 kg/m^3 max material density

— Not Available

320D/320D L Specifications

320D/320D L Work Tool Matching Guide

Boom Options	Reach Boom	
	5.7 m	
Stick Options	**R2.9B1**	**R2.5B1**
Vibratory Plate Compactor	CVP110	CVP110
Trash Grapple	2.7 m^3	2.7 m^3
Contractors' Grapple	yes	yes
Hydraulic Thumb	yes	yes
Dedicated Quick Coupler	yes	yes

Machine Weight

Lower Structure	6650	7830
Upper Structure	10 010	10 010
Boom	1740	1740
Stick	820	820
Bucket	990	990
Cylinder	780	780
Linkage	130	130
Total	21 100	22 300

Buckets

Model	SAE Capacity of Bucket	Weight of Bucket	Width of Bucket	Track Shoe Width	Counterweight	Boom/Stick	Machine Weight
320D	1.0 m^3	778 kg	1232 mm	790 mm	3700 kg	R5.7 HD/R2.9 HD	21 300 kg
320D L	1.0 m^3	778 kg	1232 mm	790 mm	3700 kg	R5.7 HD/R2.9 HD	21 900 kg

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.9 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Standard

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg							*4500	*4500			*3850	*3850	6.15
6.0 m	kg							*4800	4600			*3600	3300	7.28
4.5 m	kg							*5300	4450	4600	3100	*3500	2750	7.98
3.0 m	kg					*7750	6400	*6050	4200	4450	2950	*3600	2500	8.35
1.5 m	kg					*9350	5850	6050	3950	4350	2850	3600	2400	8.44
Ground Line	kg			*6200	*6200	9000	5550	5850	3750	4250	2750	3700	2400	8.26
–1.5 m	kg	*6600	*6600	*10 700	10 300	8900	5450	5750	3650	4200	2700	4000	2600	7.78
–3.0 m	kg	*11 350	*11 350	*13 700	10 500	8950	5500	5750	3700			4750	3050	6.94
–4.5 m	kg			*10 850	*10 850	*7800	5750					*5900	4250	5.60

Boom – Reach
Stick – 2.9 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Standard

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg							*4500	*4500			*3850	*3850	6.15
6.0 m	kg							*4800	4700			*3600	3350	7.28
4.5 m	kg							*5300	4550	4700	3150	*3500	2850	7.98
3.0 m	kg					*7750	6550	*6050	4300	4600	3050	*3600	2550	8.35
1.5 m	kg					*9350	6000	6200	4050	4450	2950	3750	2450	8.44
Ground Line	kg			*6200	*6200	9250	5700	6000	3850	4350	2850	3800	2500	8.26
–1.5 m	kg	*6600	*6600	*10 700	10 600	9150	5600	5900	3750	4300	2800	4100	2650	7.78
–3.0 m	kg	*11 350	*11 350	*13 700	10 800	9200	5650	5950	3800			4850	3150	6.94
–4.5 m	kg			*10 850	*10 850	*7800	5900					*5900	4400	5.60

*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.

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

320D/320D L Specifications

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.9 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg							*4500	*4500			*3850	*3850	6.15
6.0 m	kg							*4800	*4800			*3600	*3600	7.28
4.5 m	kg							*5300	5050	*4950	3500	*3500	3150	7.98
3.0 m	kg					*7750	7350	*6050	4800	*5300	3400	*3600	2850	8.35
1.5 m	kg					*9350	6800	*6900	4500	5300	3300	*3800	2750	8.44
Ground Line	kg			*6200	*6200	*10 250	6450	7200	4350	5150	3200	*4200	2800	8.26
–1.5 m	kg	*6600	*6600	*10 700	*10 700	*10 350	6350	7100	4250	5150	3150	4900	3000	7.78
–3.0 m	kg	*11 350	*11 350	*13 700	12 500	*9650	6450	7100	4300			5800	3550	6.94
–4.5 m	kg			*10 850	*10 850	*7800	6650					*5900	4950	5.60

Boom – Reach
Stick – 2.9 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg							*4500	*4500			*3850	*3850	6.15
6.0 m	kg							*4800	*4800			*3600	*3600	7.28
4.5 m	kg							*5300	4950	*4950	3450	*3500	3050	7.98
3.0 m	kg					*7750	7150	*6050	4650	5250	3300	*3600	2800	8.35
1.5 m	kg					*9350	6600	*6900	4400	5100	3200	*3800	2650	8.44
Ground Line	kg			*6200	*6200	*10 250	6300	6950	4200	5000	3100	*4200	2700	8.26
–1.5 m	kg	*6600	*6600	*10 700	*10 700	*10 350	6200	6900	4100	5000	3050	4750	2900	7.78
–3.0 m	kg	*11 350	*11 350	*13 700	12 150	*9650	6250	6900	4150			5600	3450	6.94
–4.5 m	kg			*10 850	*10 850	*7800	6450					*5900	4800	5.60

*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.

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

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 6.28 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Super Long Reach

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m				
																						m
12.0 m	kg																			*1257	*1257	10.35
10.5 m	kg																			*1167	*1167	11.66
9.0 m	kg															*1970	1966			*1117	*1117	12.66
7.5 m	kg													*2144	*2144	*2133	1951			*1092	*1092	13.41
6.0 m	kg													*2280	*2280	*2209	1898	*1831	1473	*1088	*1088	13.96
4.5 m	kg											*2669	*2669	*2468	2324	*2329	1821	*2243	1433	*1101	*1101	14.34
3.0 m	kg			*4691	*4691	*5776	*5776	*4258	*4258	*3472	*3472	*2998	2802	*2687	2184	*2475	1730	2305	1379	*1132	*1132	14.54
1.5 m	kg					*6742	6577	*5104	4536	*3991	3357	*3338	2587	*2918	2042	*2631	1637	2245	1322	*1181	1132	14.60
Ground Line	kg			*2006	*2006	*4661	*4661	*5781	4098	*4446	3073	*3650	2397	*3135	1914	2623	1551	2189	1269	*1253	1116	14.49
–1.5 m	kg	*2065	*2065	*2707	*2707	*4624	*4624	*6221	3829	*4788	2870	3824	2251	3085	1812	2550	1482	2147	1229	*1353	1129	14.22
–3.0 m	kg	*2850	*2850	*3513	*3513	*5182	*5182	*6433	3696	4785	2748	3721	2155	3011	1742	2503	1437	2127	1210	*1493	1174	13.79
–4.5 m	kg	*3661	*3661	*4405	*4405	*6056	5561	*6442	3661	4730	2697	3672	2109	2976	1710	2488	1423			*1694	1261	13.17
–6.0 m	kg	*4526	*4526	*5407	*5407	*7204	5673	*6255	3702	4743	2709	3676	2113	2987	1719	2518	1452			*2000	1407	12.34
–7.5 m	kg	*5475	*5475	*6564	*6564	*7583	5860	*5843	3809	*4682	2780	3738	2171	3054	1783					*2512	1651	11.24
–9.0 m	kg			*7955	*7955	*6547	6136	*5125	3991	*4115	2920	*3293	2301							*2860	2086	9.79
–10.5 m	kg							*3891	*3891	*2987	*2987									*2798	*2798	7.80

*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.

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

320D/320D L Specifications

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Standard

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4700	*4700	5.59
6.0 m	kg							*5200	4550			*4300	3600	6.83
4.5 m	kg					*6600	*6600	*5650	4400	4550	3050	*4200	3000	7.57
3.0 m	kg					*8250	6250	6250	4150	4450	2950	4050	2650	7.96
1.5 m	kg					9250	5750	6000	3900	4300	2850	3900	2550	8.05
Ground Line	kg					9000	5500	5800	3750	4250	2750	4000	2600	7.86
–1.5 m	kg			*11 300	10 450	8950	5500	5750	3700			4350	2850	7.35
–3.0 m	kg			*12 800	10 650	9050	5600	5850	3750			5300	3450	6.46
–4.5 m	kg					*6900	5850					*5950	5150	4.98

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Standard

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4700	*4700	5.59
6.0 m	kg							*5200	4650			*4300	3700	6.83
4.5 m	kg					*6600	*6600	*5650	4500	4650	3100	*4200	3050	7.57
3.0 m	kg					*8250	6400	*6350	4250	4550	3050	4150	2750	7.96
1.5 m	kg					9500	5900	6150	4000	4450	2900	4000	2650	8.05
Ground Line	kg					9250	5650	6000	3850	4350	2850	4100	2650	7.86
–1.5 m	kg			*11 300	10 750	9200	5650	5950	3800			4500	2900	7.35
–3.0 m	kg			*12 800	10 950	*9300	5750	6000	3850			5450	3550	6.46
–4.5 m	kg					*6900	6050					*5950	5250	4.98

*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.

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

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4700	*4700	5.59
6.0 m	kg							*5200	5150			*4300	4100	6.83
4.5 m	kg					*6600	*6600	*5650	5000	*4750	3450	*4200	3400	7.57
3.0 m	kg					*8250	7200	*6350	4750	5400	3400	*4300	3100	7.96
1.5 m	kg					*9750	6700	*7100	4500	5250	3250	*4600	2950	8.05
Ground Line	kg					*10 350	6450	7150	4300	5200	3200	4850	3000	7.86
–1.5 m	kg			*11 300	*11 300	*10 200	6400	7100	4250			5350	3300	7.35
–3.0 m	kg			*12 800	12 650	*9300	6500	*6850	4350			*6100	3950	6.46
–4.5 m	kg					*6900	6800					*5950	5900	4.98

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4700	*4700	5.59
6.0 m	kg							*5200	5000			*4300	4000	6.83
4.5 m	kg					*6600	*6600	*5650	4850	*4750	3400	*4200	3300	7.57
3.0 m	kg					*8250	7000	*6350	4600	5250	3300	*4300	3000	7.96
1.5 m	kg					*9750	6500	*7100	4350	5100	3200	4600	2850	8.05
Ground Line	kg					*10 350	6250	6950	4200	5050	3100	4700	2900	7.86
–1.5 m	kg			*11 300	*11 300	*10 200	6200	6900	4150			5150	3200	7.35
–3.0 m	kg			*12 800	12 300	*9300	6300	*6850	4200			*6100	3850	6.46
–4.5 m	kg					*6900	6600					*5950	5750	4.98

*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.

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

320D/320D L Specifications

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4674	*4674	5.59
6.0 m	kg							*5180	*5180			*4279	*4279	6.83
4.5 m	kg					*6547	*6547	*5593	5276	*4724	3680	*4188	3623	7.57
3.0 m	kg					*8210	7628	*6318	5019	*5464	3591	*4289	3266	7.96
1.5 m	kg					*9667	7105	*7051	4768	5538	3478	*4575	3135	8.05
Ground Line	kg					*10 303	6856	*7518	4602	5451	3398	5107	3194	7.86
–1.5 m	kg			*11 265	*11 265	*10 155	6813	7489	4546			5605	3487	7.35
–3.0 m	kg			*12 715	*12 715	*9222	6916	*6791	4622			*6064	4213	6.46
–4.5 m	kg					*6819	*6819					*5895	*5895	4.98

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 790 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4816	*4816	5.59
6.0 m	kg							*5361	*5361			*4411	4360	6.83
4.5 m	kg					*6770	*6770	*5789	5276	*4869	3680	*4318	3623	7.57
3.0 m	kg					*8497	7628	*6542	5019	*5661	3591	*4422	3266	7.96
1.5 m	kg					*10 008	7105	*7303	4768	5538	3478	*4717	3135	8.05
Ground Line	kg					*10 668	6856	7551	4602	5451	3398	5107	3194	7.86
–1.5 m	kg			*11 596	*11 596	*10 517	6813	7489	4546			5605	3487	7.35
–3.0 m	kg			*13 173	*13 173	*9555	6916	*7039	4622			*6288	4213	6.46
–4.5 m	kg					*7076	*7076					*6119	*6119	4.98

*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.

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

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4674	*4674	5.59
6.0 m	kg							*5180	*5180			*4279	4251	6.83
4.5 m	kg					*6547	*6547	*5593	5148	*4724	3583	*4188	3526	7.57
3.0 m	kg					*8210	7440	*6318	4891	*5464	3494	*4289	3176	7.96
1.5 m	kg					*9667	6918	*7051	4640	5385	3381	*4575	3045	8.05
Ground Line	kg					*10 303	6669	7343	4474	5298	3301	4962	3102	7.86
–1.5 m	kg			*11 265	*11 265	*10 155	6625	7280	4418			5447	3388	7.35
–3.0 m	kg			*12 715	*12 715	*9222	6729	*6791	4494			*6064	4096	6.46
–4.5 m	kg					*6819	*6819					*5895	*5895	4.98

Boom – Reach
Stick – 2.5 m
Bucket – None
Shoes – 600 mm triple grouser
Undercarriage – Long

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4816	*4816	5.59
6.0 m	kg							*5361	5310			*4411	4251	6.83
4.5 m	kg					*6770	*6770	*5789	5148	*4869	3583	*4318	3526	7.57
3.0 m	kg					*8497	7440	*6542	4891	5509	3494	*4422	3176	7.96
1.5 m	kg					*10 008	6918	*7303	4640	5385	3381	*4717	3045	8.05
Ground Line	kg					*10 668	6669	7343	4474	5298	3301	4962	3102	7.86
–1.5 m	kg			*11 596	*11 596	*10 517	6625	7280	4418			5447	3388	7.35
–3.0 m	kg			*13 173	13 109	*9555	6729	*7039	4494			*6288	4096	6.46
–4.5 m	kg					*7076	7035					*6119	6115	4.98

*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.

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

320D/320D L Standard Equipment

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

- Upper Structure
  - Electrical
    - Alternator, 80 Amp
    - Light, storage box mounted (one)
    - Signaling/Warning horn
    - Starter Motor 8 kW
  - Engine
    - C6.6 with ACERT™ Technology
    - 3000 m altitude capability with no deration
    - 4 fuel filtrations (4 micron)
    - China Beijing and China National Emission package
    - Mandatory to meet Beijing Emissions Regulation DB 11/185-2003, DB11/184-2003 and China National Standard GB 17691-2001
    - Glow plug
    - Automatic engine speed control with one touch low idle
    - High ambient cooling package (for China)
    - Radial seal air filter
    - Water separator in fuel line with 4 micron fuel filter with water level indicator
    - Waved fin radiator with space for cleaning
    - Auxiliary hydraulic valve (one)
  - Automatic swing parking brake
  - Batteries (2× 900 cca)
  - Boom drift reducing valve
  - Boom lowering device for back-up
  - Capability of stackable valves for main valve (maximum three valves)
  - Capability of auxiliary circuit (auxiliary pump and valves)
  - Capability of boom and stick lowering control device
  - Cat data link with capability of E.T.
  - Cat one key security system
  - Counterweight
  - Door locks and cap locks
  - Fixed type condenser core for air conditioning
  - Mirrors, rearview (frame-right, cab-left)
  - Product Link (China) – 522
  - Regeneration circuit for boom and stick
  - Reverse swing damping valve
  - Secondary engine shutoff switch
  - Steel wall between engine and pump compartment
  - Stick drift reducing valve
  - Straight travel hydraulic circuit
  - Two speed travel
  - Undercarriage
    - Idler and center section track guiding
    - Towing eye on base frame
- Operator Station
  - Cab
    - Adjustable armrest
    - Antenna and Harness (without radio speakers)
    - Ashtray and lighter
    - Beverage holder
    - Bi-Level air conditioner (automatic) with defroster
    - Capability of installing two additional pedals
    - Coat hook
    - Front windshield glass split 70/30
    - Interior lighting
    - Control lever joysticks
    - Laminated front windshield and tempered other windows
    - Literature holder
    - Mounting for two stereo speakers (two locations)
    - Neutral lever (lock out) for all controls
    - Openable front windshield with assist device
    - Openable metal roof hatch
    - Pillar mounted upper windshield wiper and washer
    - Positive filtered ventilation
    - Pressurized cab (Positive filtered ventilation)
    - Radio mounting (DIN size)
    - Rear window, emergency exit
    - Removable lower windshield with in-cab storage bracket
    - Seat suspension, four way adjustable low back with integrated, adjustable console
    - Seat belt, retractable (two inch width)
    - Sliding upper door window
    - Start Switch Panel
    - Travel control pedals with removable hand levers
    - Utility space for magazine
    - Washable floor mat
  - Monitor
    - Economy mode
    - Full time clock
    - Language display – Full color and graphical display
    - Machine condition, error code and tool mode setting
    - Start-up level check for hydraulic oil, engine oil and coolant
    - Warning information, filter/fluid change information and working hour

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

- Front Linkage
  - Bucket linkage, B1-family
  - Heavy-duty 5.7 m reach boom (with left side light)
  - Heavy-duty R2.9B1 stick for heavy-duty reach boom
  - Heavy-duty R2.5B1 stick for heavy-duty reach boom
  - Super long reach arrangement (only for 320D L)
- Bucket
  - General duty 1.0 m^3
  - Heavy duty 1.0 m^3
  - Heavy duty 1.2 m^3
  - Severe duty 1.0 m^3
  - General duty 0.4 m^3 for super long reach arrangement
  - Ditch cleaning 0.6 m^3 for super long reach arrangement
- Bucket attachments
  - Tips, side cutters and side protectors
- Tracks
  - 600 mm double grouser shoes
  - 600 mm triple grouser shoes
  - 790 mm triple grouser shoes
- Ether aid for cold weather package
- Auxiliary hydraulics and lines
  - Boom and stick lines
  - Tool control system
    - Common, 1 way and 2 ways
      - Foot pedals operated 1/2P, common circuit for sheers, pulverizes, thumbs, cutter etc.
    - Hammer, 1 way only
      - Foot pedal operated 2P, one way circuit for hammers, pile drivers etc.
- Starting kit, cold weather, additional 2×batteries
- Full length track guiding guard
- Air prefilter
- Converter (2 sockets, max 10A)
- Guard Package include (HD) Bottom, (HD) travel motor, swivel
- HD roller
- Cab light

320D/320D L Hydraulic Excavators

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(GCN1)

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