

# 323D L

Hydraulic Excavator



## Engine

Engine Model	Cat® C6.4 ACERT™
Net Flywheel Power	110 kW

## Weights

Operating Weight – Minimum 22 300 kg

- HD 5.7 m Reach boom, HD R2.5B1 Stick, 1.3 m<sup>3</sup> HDR Bucket, 600 mm Shoe

Operating Weight 23 000 kg

- HD 5.7 m Reach boom, HD R2.9B1 Stick, 1.2 m<sup>3</sup> HD Bucket, 600 mm Shoe

Operating Weight – Maximum 23 100 kg

- 5.2 m Mass boom, M2.4CB2 Stick, 1.4 m<sup>3</sup> HDR Bucket, 600 mm Shoe

# 323D L Hydraulic Excavator

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

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## Engine and Hydraulics

- ✓ ACERT™ Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions with exceptional performance capabilities and proven reliability. By combining excellent fuel efficiency and maximized production, 323D L will provide unmatched profit potential. **pg. 4**

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## 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. **pg. 11**

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## Structures

Caterpillar® design and manufacturing techniques assure outstanding durability and service life from these important components. **pg. 5**

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## Cat® 323D L Total Solutions

With Caterpillar and its extensive dealer network, we offer a wide variety of solutions to the issues you face daily. **pg. 12**

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## Operator Station

- ✓ 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**





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### Booms and Sticks

The 323D L offers the most comprehensive choice of front linkage options and attachments to best meet your job and application. **pg. 8**

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### Work Tools – Attachments

✓ A variety of work tools, including buckets, couplers, hammers, and shears are available through Cat® Work Tools. **pg. 9**

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### 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. 10**



✓ *New Feature*

## Engine and Hydraulics

*The Cat® 323D L delivers the power and control that you need in order to get the job done quickly and efficiently in all applications.*



**Cat C6.4.** 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 global low 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.

**Low sound, low vibration.** By design, the Cat C6.4 improves operator comfort by reducing sound and vibration.

### **Automatic Engine Speed Control.**

Automatic Engine Control with convenient one-touch command. During no-load or light-load conditions, the Automatic Engine Speed reduces engine speed. This maximizes fuel efficiency and reduces sound levels.

**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.

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

**Component Layout.** The 323D L hydraulic system and component locations are 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 to reduce friction loss, and pressure drops. The layout further provides greater operator comfort by placing the radiator on the cab side of the upper structure. This allows incoming air to enter the engine compartment from the operator side and hot air and corresponding engine sound to exit on the opposite side away from the operator. This reduces engine compartment heat and sound being transmitted to the operator.

### **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.**

The auxiliary valve is standard on the 323D 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.

### **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.

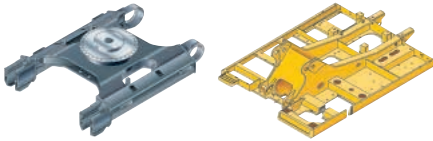
### **Hydraulic Cylinder Snubbers .**

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.



## Structures

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



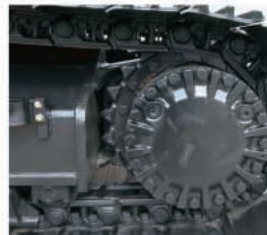
### **Carbody Design and Track Roller Frames.**

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.

**Tracks.** The 323D L comes standard with grease lubricated tracks. The track links are assembled and sealed with grease to decrease internal bushing wear, reduce travel noise and extend service life lowering operating costs.

**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.

**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 323D L allows the operator to focus on production.*





**Operator Station.** The workstation is spacious, quiet and comfortable, assuring high productivity during a long work day. The air conditioner and attachment switches are conveniently located on the right-hand wall, and the key switch and throttle dial are on the right-hand console. The monitor is easy to see and maximizes visibility.

**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.



**Monitor.** The monitor is a full color 400x234 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.

The Master Caution Lamp blinks ON and OFF when one of the critical conditions below occurs:

- Engine oil pressure low
- Coolant temperature high
- Hydraulic oil temperature high

Under normal conditions or the default condition, the monitor display screen is divided into four areas; clock and throttle dial, gauge, event display and multi-information display.

**Clock and Throttle Dial Display.**

The clock and throttle dial position are displayed on the monitor screen. When Economy mode is activated, the green gas station icon will be indicated at the side of the throttle dial.

**Gauge Display.** Three analog gauges, fuel level, hydraulic oil temperature and coolant temperature, are displayed on the monitor screen.

**Event Display.** Machine information is displayed on the monitor screen with the icon and language.

**Multi-information Display.** This area is reserved for displaying information that is convenient for the operator. The “CAT” logo is displayed when no information is available to be displayed.

**Joystick Control.** Joystick controls have low lever effort and are designed to match the operator’s natural wrist and arm position. The operator can operate joystick controls with an arm on the armrest and the horizontal and vertical strokes have been designed to reduce operator fatigue.

**Seat.** A new 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.

**Hydraulic Activation Control Lever.**

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



**Console.** Redesigned 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 exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance of fatigue and vibration. This design allows the FOGS to be bolted directly to the cab, at the factory or as an attachment later, enabling the machine to meet specifications and job site requirements.

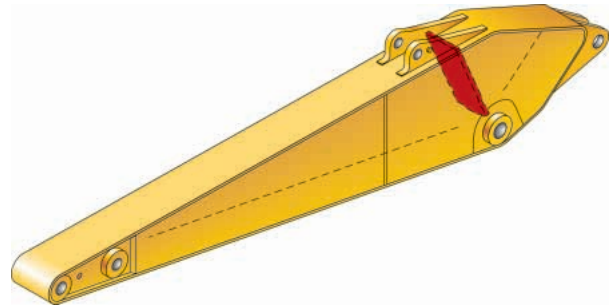
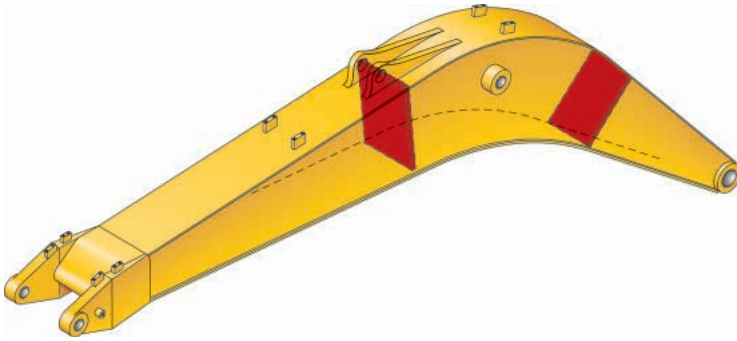
**Cab Mounts.** The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing operator comfort.

**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.**

Designed for maximum flexibility, productivity and high efficiency on all jobs, the 323D L offers a wide range of configurations suitable for a variety of applications.

**Front Linkage Attachments.** Two lengths of booms and three sticks are available, offering a range of configurations suitable for a wide variety of application conditions.

**Booms.** The booms have large cross-sections and internal baffle plates to provide long life durability.

**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.

**Linkage Pins.** All the pins in the front linkages have thick chrome plating, giving them high wear and corrosion resistance.

**Bucket Linkage.** The power link improves durability, increases machine-lifting capability in key lifting positions and is easier to use than compared to the previous lifting eye.

**Power Link.** The power link improves durability, increases machine-lifting capability in key lifting positions, and is easier to use compared to the previous lift bar design.

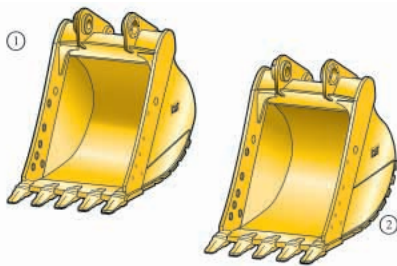


## Work Tools – Attachments

*The 323D L has an extensive selection of work tools to optimize machine performance.*

**Service Life.** Caterpillar buckets increase service life and reduce repair costs.

- Dual radius design for increased heel clearance and reduced wear
- Robot welding of hinge assembly for increased weld penetration and longer life
- High strength and heat-treated steel that exceeds T-1 in high wear areas



① **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 best loading and dumping characteristics and will empty easier in cohesive material. More robust construction than the GP buckets.

② **Heavy-Duty Rock Buckets.** Heavy-duty rock for aggressive bucket loading in highly abrasive application such as shot rock and granite. Features include:

- Thickest wear plates to extend the life of bucket in severe applications
- Side wear plated extend further up the side of the bucket for maximum protection in rocky soils
- Buckets accept sidebar protectors for best sidebar protection, or sidecutters for best fill characteristics and bucket wear protection

**Caterpillar Ground Engaging Tools (GET).** The Caterpillar GET is featured on the new buckets and offer better penetration. There are also a variety of side cutters and sidebar protectors to match operating conditions.

**Ditch Cleaning Bucket.** Designed to provide superior utility for maintaining ditches, loading loose materials (sand or silt), and lightweight material that has already been excavated or broken loose. The bucket's shallow depth and compact size make it ideal for work in confined areas.

**Trenching Buckets.** General purpose bucket for trenching. Suitable for most soil conditions where moderate impact and abrasion conditions are encountered.

**Ripper.** Ripper breaks up hard soil and ice during ground preparation. It is perfectly suited for pipeline and trenching work.

**Mechanical Shear.** Mechanical Shears provide a low cost alternative to hydro-mechanical shears when rotation of the work tool is not necessary and when the material to be cut matches the cutting force of the jaw opening of the shear. Applications include automobile tires, cables, and smaller diameter pipe, structural steel like I-beams and solid rounds.

**Mechanical Pulverizer.** Mechanical Pulverizers replace the normal Excavator bucket, and are a highly cost-effective tool for single-step recycling and processing demolished concrete debris. The Mechanical Pulverizer is powered by the Excavator bucket cylinder, eliminating the need for costly additional cylinders or hydraulics.

**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.

**Thumb.** Cat thumbs multiply the capacities of your excavator. This highly versatile tool works in conjunction with the bucket to transform an excavator into a versatile material-handling machine.

**Vibratory Plate Compactor.** Caterpillar Vibratory Plate Compactors provide superior compaction force in a reliable, low-maintenance package. These units produce high-power impulses at a rate of 2,200 impacts per minute. The forces generated by this vibration drive soil particles close together for solid, stable compactions. Whether in a trench or on a slope, driving sheeting or posts, Cat Compactors are the superior choice for any job site's compaction tasks.

**Dedicated Quick Coupler.** Quick Couplers increase the versatility of Cat excavators; allowing the ease of changing work tools to meet job requirements at hand in a matter of minutes or seconds. Dedicated quick coupler buckets have no loss of tip radius, and develop maximum breakout force.

## Service and Maintenance

*Simplified service and maintenance features save you time and money.*



**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 and pilot filter.

**Radiator Compartment.** The left rear service door allows easy access to the engine radiator, oil cooler and air-to-air-after-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.

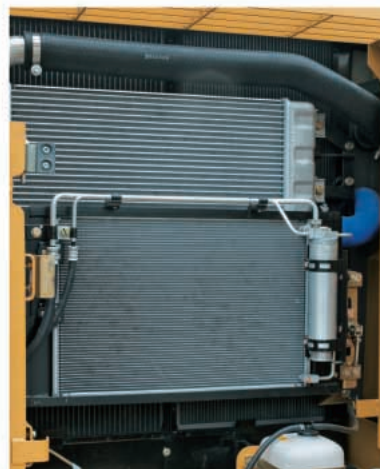
**Greasing Points.** A concentrated remote greasing block on the boom delivers grease to hard-to-reach locations on the front.

**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 323D L is equipped with S-O-S<sup>SM</sup> sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Cat Electronic Technician (Cat ET) service tool is located behind the cab.

**Extended Service Interval.** 323D L service and maintenance intervals have been extended to reduce machine service time and increase machine availability.



**Ground Level Service.** The design and layout of the 323D 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.

## 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.

**Purchase.** Look past initial price. 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.



**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.

**SAFETY.CAT.COM™.**



## Cat® 323D L Total Solutions

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



**More than a Machine.** The Caterpillar 323D 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 323D L offer you the tools to help lower your owning and operating costs.

**Proven Reliability and Durability.** Maximizes your up-time and provides long life and value. The 323D L 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 in one of 27 languages, including Chinese.

**More Versatility.** Maximizes the machine to your job and minimizes downtime. The 323D L offers the most appropriate variety of front linkage options, which allows you to optimize your machine to the job requirements.

**Better Serviceability.** Making it easier to perform service and routine maintenance. The 323D L 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 323D L 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.

## Engine

Engine Model	Cat® C6.4 ACERT™
Net Flywheel Power	110 kW
Net Power – ISO 9249	110 kW
Bore	102 mm
Stroke	130 mm
Displacement	6.4 L

- The Cat C6.4 meets exhaust emissions equivalent to former USA EPA Tier 2 and EU Stage II engine emissions regulations.
- 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 2300 m.

## Weights

Operating Weight – Minimum	22 300 kg
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- HD 5.7 m Reach boom, HD R2.5B1 Stick, 1.3 m<sup>3</sup> HDR Bucket, 600 mm Shoe

Operating Weight	23 000 kg
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- HD 5.7 m Reach boom, HD R2.9B1 Stick, 1.2 m<sup>3</sup> HD Bucket, 600 mm Shoe

Operating Weight – Maximum	23 100 kg
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- 5.2 m Mass boom, M2.4CB2 Stick, 1.4 m<sup>3</sup> HDR Bucket, 600 mm Shoe

## Service Refill Capacities

Fuel Tank Capacity	410 L
Cooling System	25 L
Engine Oil	30 L
Swing Drive	8 L
Final Drive (each)	10 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	5.7 km/h

## Hydraulic System

Main Implement System – Maximum Flow (2x)	205 L/min
Max. pressure – Equipment	35 000 kPa
Max. pressure – Travel	35 000 kPa
Max. 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	ANSI/SAE J1166 OCT 98
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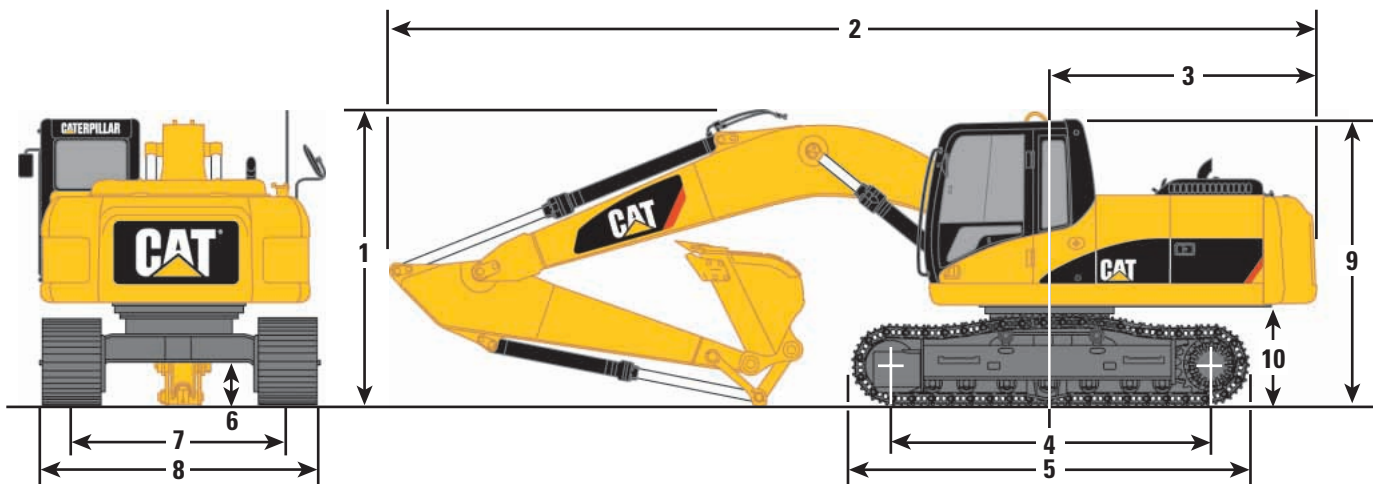
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT 98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

## Standards

Brakes	SAE J1026 APR90
Cab/FOGS	SAE J1356 FEB88

## Dimensions

All dimensions are approximate.

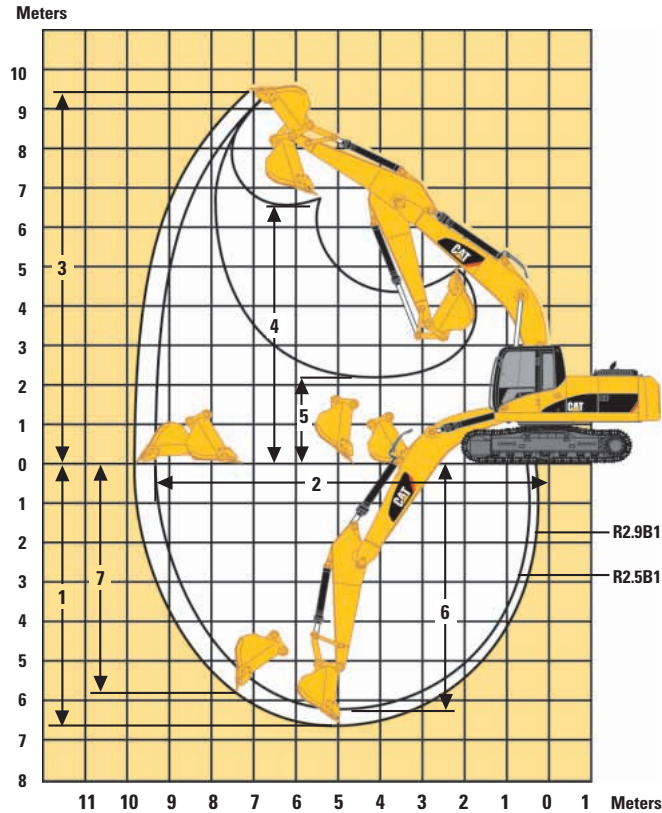


Boom Options	HD Reach 5.7 m		Mass 5.2 m
Stick Options	HD R2.9B1	HD R2.5B1	M2.4CB2
<b>1</b> Shipping Height (with bucket)	3050 mm	3030 mm	3280 mm
<b>2</b> Shipping Length	9460 mm	9460 mm	9050 mm
<b>3</b> Tail Swing Radius	2750 mm	2750 mm	2750 mm
<b>Long Fixed Undercarriage</b>			
<b>4</b> Length to Center of Idler and Sprocket	3650 mm	3650 mm	3650 mm
<b>5</b> Track Length	4455 mm	4455 mm	4455 mm
<b>6</b> Ground Clearance	450 mm	450 mm	450 mm
<b>7</b> Track Gauge	2380 mm	2380 mm	2380 mm
<b>8</b> Track Width	3180 mm	3180 mm	3180 mm
<b>9</b> Cab Height	2950 mm	2950 mm	2950 mm
<b>10</b> Counterweight Height (to bottom)	1020 mm	1020 mm	1020 mm



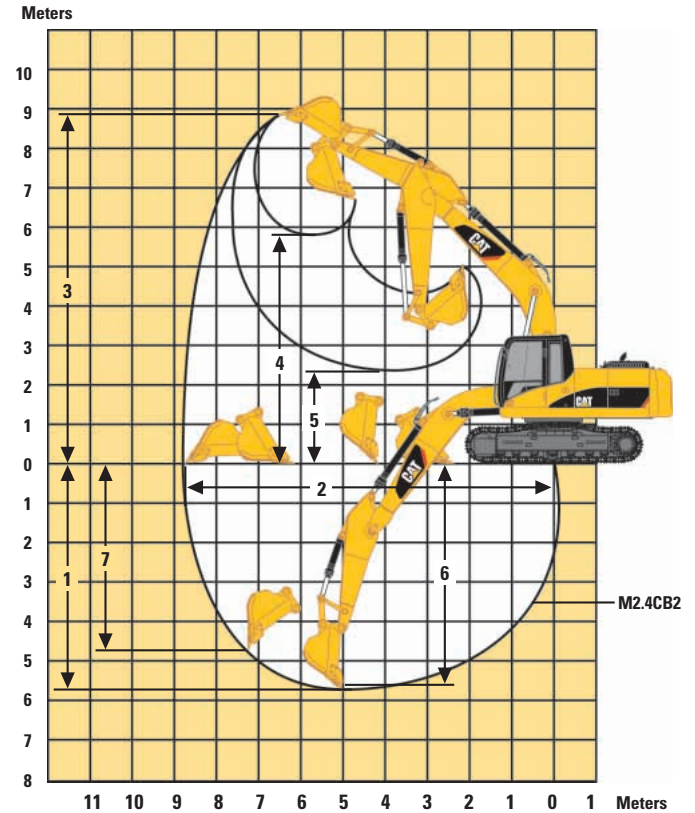
## Reach Excavator Working Ranges

Reach (R) boom configuration



## Mass Excavator Working Ranges

Mass (M) boom configuration



### Boom Options

	HD Reach 5.7 m	Mass 5.2 m
<b>Stick Options</b>	<b>HD R2.9B1</b>	<b>M2.4CB2</b>
<b>1</b> Maximum Digging Depth	6710 mm	5890 mm
<b>2</b> Maximum Reach at Ground Level	9850 mm	8960 mm
<b>3</b> Maximum Cutting Height	9470 mm	8910 mm
<b>4</b> Maximum Loading Height	6500 mm	5720 mm
<b>5</b> Minimum Loading Height	2180 mm	2230 mm
<b>6</b> Maximum Depth Cut for 2440 mm Level Bottom	6380 mm	5540 mm
<b>7</b> Maximum Vertical Wall Digging Depth	5860 mm	4800 mm

### Bucket and Stick Forces

Bucket Tip Radius	1560 mm	1690 mm
Bucket Forces (ISO 6015)	140 kN	174 kN
Stick Forces (ISO 6015)	106 kN	126 kN

All measurements are approximate

# Machine and Major Component Weights

	kg
<b>Base machine with counterweight (without front linkage)</b>	
Standard Undercarriage with 600 mm triple grouser shoes	6650
Standard Undercarriage with 800 mm triple grouser shoes	7260
Long Undercarriage with 600 mm triple grouser shoes	7190
Long Undercarriage with 800 mm triple grouser shoes	7850
Upperstructure without counterweight	6130
Counterweight	4400
<b>Boom</b>	
Two Boom Cylinders (each)	190
5.7 m Heavy Duty Reach Boom (includes lines, pins, and stick cylinder)	2030
5.2 m Mass Boom (includes lines, pins and stick cylinder)	1700
Stick Cylinder	290
<b>Stick</b>	
Heavy Duty Stick R2.9B1 (includes lines, pins, bucket cylinder and linkage)	1130
Heavy Duty Stick R2.5B1 (includes lines, pins, bucket cylinder and linkage)	1110
Heavy Duty Stick M2.4CB2 (includes lines, pins, bucket cylinder and linkage)	1250
Bucket Cylinder B1	170
Bucket Cylinder CB2	250
Bucket Linkage B1	140
Bucket Linkage CB2	220

# Bucket Specifications and Compatibility

Bucket Type	Family	Width mm	Weight kg*	Capacity L	Fill Factor	HD Reach Boom Stick		Mass Boom Stick
						R2.9B1	R2.5B1	M2.4CB2
Heavy Duty (HD)	B	1232	926	1200	100%	●	●	—
	B	1360	1037	1300	100%	●	●	—
Heavy Duty Rock (HDR)	B	1232	1077	1200	100%	●	●	—
	CB	1252	1268	1350	100%	—	—	●

With 800 mm triple grouser shoes.

\*Bucket weight including tips.

● 1800 kg/m<sup>3</sup> maximum material density

Bucket Type	Family	Width mm	Weight kg*	Capacity L	Fill Factor	HD Reach Boom Stick		Mass Boom Stick
						R2.9B1	R2.5B1	M2.4CB2
Heavy Duty (HD)	B	1232	926	1200	100%	●	●	—
	B	1360	1037	1300	100%	◐	●	—
Heavy Duty Rock (HDR)	B	1232	1077	1200	100%	●	●	—
	CB	1252	1268	1350	100%	—	—	●

With 600 mm triple grouser shoes.

\*Bucket weight including tips.

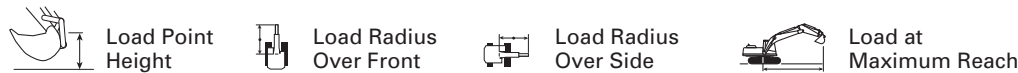
● 1800 kg/m<sup>3</sup> maximum material density

◐ 1500 kg/m<sup>3</sup> maximum material density

# Work Tool Matching Guide

Boom Options	HD Reach 5.7 m		Mass 5.2 m
Stick Options	HD R2.9B1	HD R2.5B1	M2.4CB2
<b>Tools:</b>			
Vibratory Plate Compactor	CVP110	CVP110	CVP110
Trash Grapple	2.7 m <sup>3</sup>	2.7 m <sup>3</sup>	2.7 m <sup>3</sup>
Contractors' Grapple	Yes	Yes	Yes
Hydraulic Thumb	Yes	Yes	Yes
Dedicated Quick Coupler	Yes	Yes	Yes
Ripper	Yes	Yes	Yes
Mechanical Shear	Yes	Yes	Yes
Mechanical Pulverizer	Yes	Yes	Yes

## Reach Boom Lift Capacities



**BOOM** – HD 5.7 m  
**STICK** – HD 2.9 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser

**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – Off

	3.0 m		4.5 m		6.0 m		7.5 m				m	
7.5 m	kg									*2450	*2450	6.81
6.0 m	kg						*3300	3250	*2350	*2350		7.77
4.5 m	kg				*4250	*4250	*3850	3200	*2300	*2300		8.43
3.0 m	kg			*7050	*7050	*5150	4500	*4300	3050	*2350	2200	8.82
1.5 m	kg			*8850	6600	*6050	4200	*4750	2900	*2500	2050	8.91
Ground Line	kg			*9550	6300	*6650	4000	4850	2750	*2800	2100	8.72
-1.5 m	kg	*8050	*8050	*9450	6250	*6800	3950	4800	2700	*3350	2350	8.24
-3.0 m	kg	*9000	*9000	*8600	6350	*6300	3950			*4300	2850	7.40
-4.5 m	kg			*6700	6600					*4450	4100	6.05

**BOOM** – HD 5.7 m  
**STICK** – HD 2.9 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser

**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – On

	3.0 m		4.5 m		6.0 m		7.5 m				m	
7.5 m	kg									*2550	*2550	6.81
6.0 m	kg						*3400	3250	*2450	*2450		7.77
4.5 m	kg				*4400	*4400	*4050	3200	*2400	*2400		8.43
3.0 m	kg			*7300	7200	*5350	4500	*4450	3050	*2450	2200	8.82
1.5 m	kg			*9200	6600	*6300	4200	*4950	2900	*2600	2050	8.91
Ground Line	kg			*9950	6300	*6950	4000	4850	2750	*2950	2100	8.72
-1.5 m	kg	*8300	*8300	*9800	6250	6900	3950	4800	2700	*3450	2350	8.24
-3.0 m	kg	*9250	*9250	*8950	6350	*6600	3950			*4450	2850	7.40
-4.5 m	kg			*7000	6600					*4650	4100	6.05

\* 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.

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** – HD 5.7 m  
**STICK** – HD 2.9 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 600 mm triple grouser













**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – Off

		3.0 m		4.5 m		6.0 m		7.5 m				m
												
7.5 m	kg									*2450	*2450	6.81
6.0 m	kg							*3300	3150	*2350	*2350	7.77
4.5 m	kg					*4250	*4250	*3850	3100	*2300	*2300	8.43
3.0 m	kg			*7050	*7050	*5150	4400	*4300	2950	*2350	2100	8.82
1.5 m	kg			*8850	6400	*6050	4100	*4750	2800	*2500	2000	8.91
Ground Line	kg			*9550	6100	*6650	3850	4700	2650	*2800	2050	8.72
-1.5 m	kg	*8050	*8050	*9450	6050	6700	3800	4600	2600	*3350	2250	8.24
-3.0 m	kg	*9000	*9000	*8600	6150	*6300	3850			*4300	2750	7.40
-4.5 m	kg			*6700	6400					*4450	4000	6.05

**BOOM** – HD 5.7 m  
**STICK** – HD 2.9 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 600 mm triple grouser













**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – On

		3.0 m		4.5 m		6.0 m		7.5 m				m
												
7.5 m	kg									*2550	*2550	6.81
6.0 m	kg							*3400	3150	*2450	*2450	7.77
4.5 m	kg					*4400	*4400	*4050	3100	*2400	*2400	8.43
3.0 m	kg			*7300	7050	*5350	4400	*4450	2950	*2450	2100	8.82
1.5 m	kg			*9200	6400	*6300	4150	4800	2800	*2600	2000	8.91
Ground Line	kg			*9950	6100	6750	3850	4700	2650	*2950	2050	8.72
-1.5 m	kg	*8300	*8300	*9800	6050	6700	3800	4600	2600	*3450	2250	8.24
-3.0 m	kg	*9250	*9250	*8950	6150	*6600	3850			*4450	2750	7.40
-4.5 m	kg			*7000	6400					*4650	4000	6.05

**BOOM** – HD 5.7 m  
**STICK** – HD 2.5 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser

**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – Off

		3.0 m		4.5 m		6.0 m		7.5 m				m
												
7.5 m	kg									*3000	*3000	6.29
6.0 m	kg					*4050	*4050			*2900	*2900	7.32
4.5 m	kg					*4600	*4600	*4150	3150	*2850	2750	8.02
3.0 m	kg			*7650	7000	*5450	4450	*4500	3000	*2950	2400	8.42
1.5 m	kg			*9250	6450	*6300	4150	4850	2850	*3100	2250	8.52
Ground Line	kg			*9450	6300	*6800	4000	4850	2750	*3500	2300	8.32
-1.5 m	kg	*7550	*7550	*9250	6300	*6750	3950	4800		*4150	2600	7.81
-3.0 m	kg	*9250	*9250	*8150	6400	*6050	4000			*4800	3200	6.92
-4.5 m	kg									*4450	*4450	5.44

\* 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.

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** – HD 5.7 m  
**STICK** – HD 2.5 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser













**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – On

		3.0 m		4.5 m		6.0 m		7.5 m						
												m		
7.5 m	kg											*3100	*3100	6.29
6.0 m	kg					*4200	*4200					*3000	*3000	7.32
4.5 m	kg					*4800	4750	*4350	3150			*3000	2750	8.02
3.0 m	kg			*7950	7000	*5650	4450	*4700	3000			*3050	2400	8.42
1.5 m	kg			*9600	6450	*6550	4150	4950	2850			*3250	2250	8.52
Ground Line	kg			*9750	6300	6950	4000	4850	2750			*3600	2300	8.32
-1.5 m	kg	*7800	*7800	*9600	6300	6900	3950	4800	2750			*4300	2600	7.81
-3.0 m	kg	*9550	*9550	*8500	6400	*6300	4000					*5000	3200	6.92
-4.5 m	kg											*4650	*4650	5.44

**BOOM** – HD 5.7 m  
**STICK** – HD 2.5 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 600 mm triple grouser













**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – Off

		3.0 m		4.5 m		6.0 m		7.5 m						
												m		
7.5 m	kg											*3000	*3000	6.29
6.0 m	kg					*4050	*4050					*2900	*2900	7.32
4.5 m	kg					*4600	*4600	*4150	3050			*2850	2650	8.02
3.0 m	kg			*7650	6800	*5450	4300	*4500	2900			*2950	2300	8.42
1.5 m	kg			*9250	6250	*6300	4050	4800	2750			*3100	2200	8.52
Ground Line	kg			*9450	6100	6750	3850	4650	2650			*3500	2250	8.32
-1.5 m	kg	*7550	*7550	*9250	6100	6700	3800	4650	2650			*4150	2500	7.81
-3.0 m	kg	*9250	*9250	*8150	6200	*6050	3900					*4800	3100	6.92
-4.5 m	kg											*4450	*4450	5.44

**BOOM** – HD 5.7 m  
**STICK** – HD 2.5 m

**BUCKET** – 1.3 m<sup>3</sup>  
**SHOES** – 600 mm triple grouser

**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – On

		3.0 m		4.5 m		6.0 m		7.5 m						
												m		
7.5 m	kg											*3100	*3100	6.29
6.0 m	kg					*4200	*4200					*3000	*3000	7.32
4.5 m	kg					*4800	4600	*4350	3050			*3000	2650	8.02
3.0 m	kg			*7950	6800	*5650	4300	*4700	2900			*3050	2300	8.42
1.5 m	kg			*9600	6250	*6550	4050	4800	2750			*3250	2200	8.52
Ground Line	kg			*9750	6100	6750	3850	4650	2650			*3600	2250	8.32
-1.5 m	kg	*7800	*7800	*9600	6100	6700	3800	4650	2650			*4300	2500	7.81
-3.0 m	kg	*9550	*9550	*8500	6200	*6300	3900					*5000	3100	6.92
-4.5 m	kg											*4650	*4650	5.44

\* 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.

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# Mass Boom Lift Capacities



Load Point Height



Load Radius Over Front



Load Radius Over Side















Load at Maximum Reach

**BOOM** – 5.2 m  
**STICK** – 2.4 m

**BUCKET** – 1.4 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser













**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – Off

		3.0 m		4.5 m		6.0 m		7.5 m				m
												
7.5 m	kg									*4150	*4150	5.40
6.0 m	kg					*4300	*4300			*4100	3950	6.51
4.5 m	kg					*4650	4600			*3850	3000	7.42
3.0 m	kg			*7450	7050	*5450	4350	*4600	2850	*3950	2600	7.86
1.5 m	kg			*9150	6500	*6300	4100	4800	2750	*4250	2450	7.96
Ground Line	kg			*9600	6300	*6750	3900	4700	2650	4450	2500	7.75
-1.5 m	kg	*11 550	*11 550	*9150	6300	*6600	3900			*5050	2900	7.18
-3.0 m	kg	*10 250	*10 250	*7700	6450	*5350	4000			*5050	3800	6.17

**BOOM** – 5.2 m  
**STICK** – 2.4 m

**BUCKET** – 1.4 m<sup>3</sup>  
**SHOES** – 800 mm triple grouser

**UNDERCARRIAGE** – Long  
**HEAVY LIFT** – On

		3.0 m		4.5 m		6.0 m		7.5 m				m
												
7.5 m	kg									*4300	*4300	5.40
6.0 m	kg					*4500	*4500			*4250	3950	6.51
4.5 m	kg					*4850	4600			*4000	3000	7.42
3.0 m	kg			*7700	7050	*5700	4350	*4800	2850	*4100	2600	7.86
1.5 m	kg			*9500	6500	*6500	4100	4800	2750	4300	2450	7.96
Ground Line	kg			*10 000	6300	6900	3900	4700	2650	4450	2500	7.75
-1.5 m	kg	*11 950	*11 950	*9500	6300	6850	3900			5100	2900	7.18
-3.0 m	kg	*10 650	*10 650	*8000	6450	*5600	4000			*5250	3800	6.17

\* 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.

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## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### Upper Structure

#### Electrical

- Alternator, 50A
- Light, storage box mounted (one)
- Signaling/Warning horn

#### Engine

- C6.4 with ACERT™ Technology
  - 2300 m altitude capability with no deration
  - 2 micron fuel filter
  - 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.
  - Equivalent EU Stage II /EPA Tier 2 Emission compliant
  - Air intake heater
  - Automatic engine speed control with one touch low idle
  - High ambient cooling package
  - Radial seal air filter
  - Water separator in fuel line with 10 micron fuel filter with water level indicator
  - Waved fin radiator with space for cleaning
  - Auxiliary hydraulic valve (one)
  - Automatic swing parking brake
  - Boom drift reducing valve
  - Boom lowering device for back-up
  - Capability of stackable valves for main valve (maximum three valves)
  - Capability of auxiliary circuit (aux. pump and valves)
  - Capability of boom and stick lowering control device
  - Cat data link with capability of E.T.
  - Caterpillar one key security system
  - Counterweight
  - Door locks and cap locks
  - Swing type condenser core for air conditioning
  - GPS ready function
  - Mirrors, rearview (frame-right, cab-left)
  - 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 baseframe
  - Grease lubricated track GLT2
  - Heavy duty rollers

### Operator Station

#### Cab

- Adjustable armrest
- Antenna and Harness (without radio speakers)
- Ashtray and lighter
- Beverage holder
- Bi-Level air conditioner (automatic) with defroster
- Bolt-on FOGS Capability
- 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 polycarbonate 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 high 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

*Optional equipment may vary. Consult your Caterpillar dealer for details.*

### Front linkage

- Bucket linkage, B1-family with lifting eye
- Bucket linkage, CB2-family with lifting eye
- 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
- Mass Excavation Boom (5.2 m)
- Mass Excavation Stick (M2.4CB2)

### Bucket

- Heavy-duty 1.2 m<sup>3</sup>
- Heavy-duty 1.3 m<sup>3</sup>
- Heavy-duty rock 1.2 m<sup>3</sup>
- Heavy-duty rock 1.4 m<sup>3</sup>
- Trenching
- Ditch cleaning

### Bucket Attachments

- Tips, Side cutters and Side protectors

### Tracks

- 600 mm triple grouser shoes
- 800 mm triple grouser shoes

### Operator Station

- FM/AM radio (without cassette)
- Air conditioner condenser, swing type
- Pump, Electric Refueling, with automatic shutoff
- Starting kit, cold weather, -32° C

### Auxiliary Hydraulics and lines

- Boom and stick lines

### Tool control system

- Configuration 2 (Common, 1 way and 2 ways)

Foot pedals operated 1/2P, common circuit for sheers, pulverizes, thumbs, cutter etc.

- Configuration 3 (Hammer, 1 way only)

Foot pedal operated 2P, one way circuit for hammers, pile drivers etc.

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## Notes



# 323D L Hydraulic Excavator

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

AEHQ5967-01 (8-08)

Replaces AEHQ5967

CXL

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