



# 325C LCR

Hydraulic Excavator



**CAT**<sup>®</sup>

Cat<sup>®</sup> 3126B ATAAC diesel engine

Net power (ISO 9249) at 1800 rpm 140 kW/190 hp

Operating weight 35 400 kg

Travel speed 4.3 km/h

Tail swing radius 1900 mm

Front swing radius 3360 mm

## Compact Radius

The 325C LCR has been designed to rotate with a minimal amount of counterweight hanging over the tracks, which allows it to work in tight, confined areas.

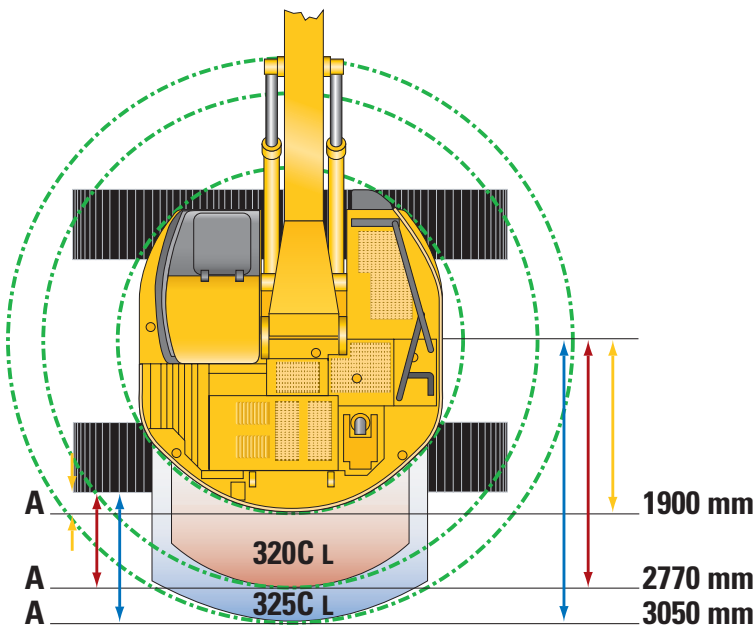


The increasing need to work within space-restricted areas has created a demand for larger excavators that can also work within tighter quarters and provide greater productivity. The newest addition to this lineup of Compact Radius (CR) excavators is the 325C LCR.

**Productivity.** Even though the 325C LCR has been designed for use in specific applications that require high maneuverability in confined spaces, it still maintains the ability to accomplish tasks in a variety of applications where space is not a factor.

**Swing Radius.** The Caterpillar® 325C LCR has a tail swing radius of 1900 mm as compared to 3050 mm for the standard Caterpillar 325C L. This reduction of tail swing may allow for swing operation with greater confidence knowing that the tail of the machine only has a minimal amount of overhang.

**Lift and Stability.** The boom on the 325C LCR has been moved more towards the center of the machine, this results in overall greater lift capacity over the front as compared to the standard 325C L. In addition to the repositioning of the boom, the Cat® 325C LCR utilizes the undercarriage of the 330C L, which allows for an extremely stable operating platform.



**325C LCR versus 325C L.** Compare minimum front swing radius and tail swing radius:

	325C LCR	325C L
Tail swing radius (mm)	1900	3050
Minimum front swing radius (mm)	3360	4148

	325C LCR	320C L	325C L
Tail swing radius (mm)	1900	2770	3050
<b>A</b> Overhang (mm)			
with 600 mm shoes	305	1280	1455
with 800 mm shoes	–	1180	1355
with 850 mm shoes	180	–	–



## Engine and Hydraulics

*The Cat 3126B ATAAC engine and hydraulics give the 325C LCR exceptional power, efficiency, and controllability.*

**Commonality.** Many of the same proven components that are used in the Cat 325C L are also utilized in the 325C LCR. This includes the same front linkage options, the powerful 3126B ATAAC engine, HEUI fuel system and high performance hydraulic system.

**Engine.** Six cylinder turbocharged engine built for power, reliability, economy and low emissions will keep the machine up and running. The Cat 3126B ATAAC engine meets Stage II worldwide emissions requirements.

### Automatic Engine Speed Control.

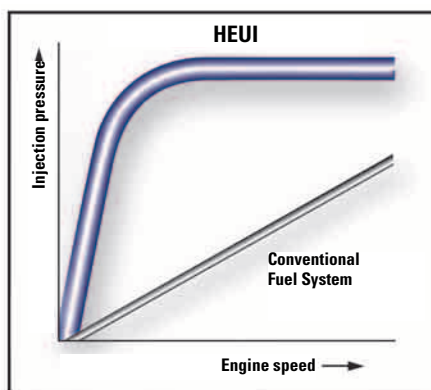
The three-stage one touch control maximizes fuel efficiency and reduces sound levels.

### Turbocharged and Air-to-air aftercooled.

Turbocharger packs more dense air into the cylinders for more complete combustion and lower emissions improving performance and engine efficiency. These benefits are especially useful at high altitudes. Air-to-air aftercooler reduces smoke and emissions by providing a cooler inlet air for more efficient combustion. This also extends the life of the piston rings and bore.

**HEUI Fuel System.** In the traditional common rail fuel system, the entire fuel line is under high pressure. With the HEUI system, fuel remains at low pressure until it is injected into the cylinder. Fuel pressure is created hydraulically in response to a signal from the Electronic Control Module (ECM).

**HEUI controls injection pressure electronically.** This unique capability means the regulation of injection pressure is completely independent of crankshaft speed. Peak injection pressure can be achieved under acceleration and lug conditions, providing better fuel economy, better response and reduced smoke.



**Injection pressure in a HEUI fuel system is independent of engine speed.**

### Hydraulic Cross Sensing System.

Improves productivity with faster implement speeds and quicker, stronger pivot turns.

### Hydraulic Cylinder Snubbers.

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

**Controllability.** The hydraulic system offers precise control to the 325C LCR, reducing operator fatigue, improving operator effectiveness and efficiency, which ultimately translates into enhanced performance.

## Operator Station

*The 325C LCR operator workstation is quiet with ergonomic control placement and convenient adjustments, low lever and pedal effort and highly efficient ventilation.*







**Cab Design.** An enlarged cab with curved styling gives the operator a comfortable, spacious working environment and excellent visibility.

**Sliding Door.** The cab door slides alongside the cab and takes less space to open and close than a hinged door. This unique design allows the operator to easily get in and out of the cab when working against walls on job sites, even when attachments are added.

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

**Climate Control.** The 325C LCR features a semi-automatic climate control with air intake system. The air conditioner is standard and adjusts temperature and flow.



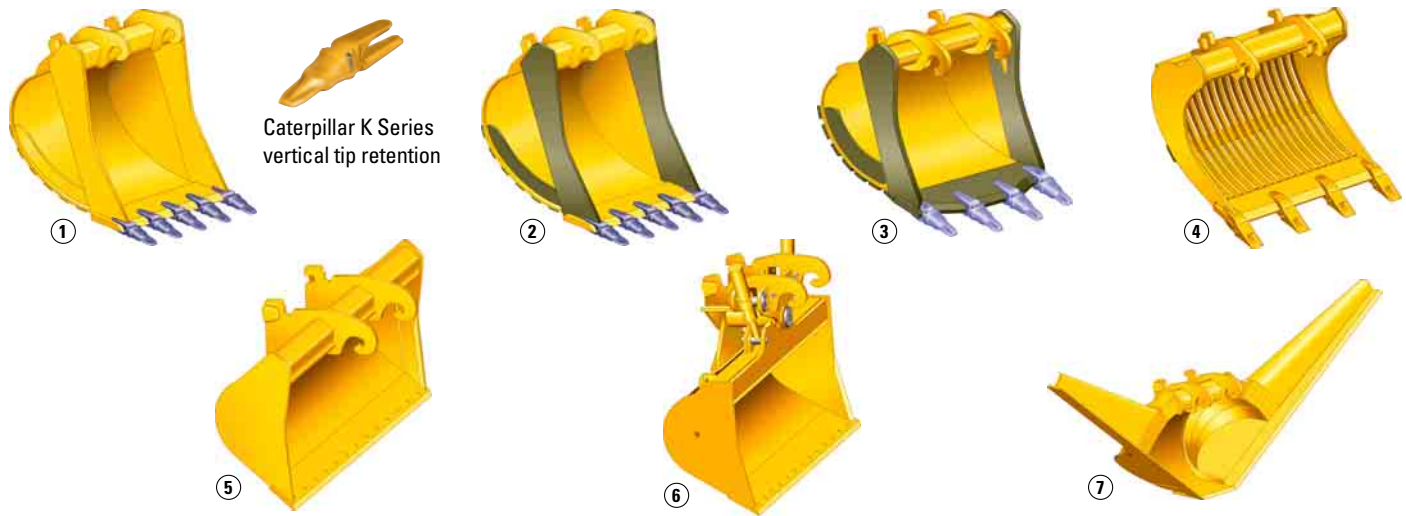
**Skylight.** The pop-up skylight provides improved upward visibility and opens easily with the assistance of a gas cylinder.

**Windshields.** The upper front windshield opens, closes, and stores below the roof of the operator with a one-touch action release system. Grips on the mid-lower portion of the front windshield assist in easy opening.

**Windows.** The enlarged right-side window provides excellent visibility and isolates the operator from the hydraulic lines. The upper cab door window slides open, providing ventilation and allowing the operator to easily communicate with people on the work site.

## Buckets and Teeth

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



### New Caterpillar K Series™ Tooth System



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

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

**3 Rock Bucket.** Digs and loads mixed earth/rock soils containing high percentage of rock or other abrasive materials. Features V-spade cutting edge, thicker base and wear surfaces.

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

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

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

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

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

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

**K Series Tip Selection.** The new Caterpillar K Series Tooth System holds tighter, changes easier and stays sharper.

- 10 General Duty
- 11 Extra Duty
- 12 Penetration
- 13 Penetration Plus
- 14 Heavy Penetration
- 15 Heavy Abrasion
- 16 Wide
- 17 Spike
- 18 Double Spike

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

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

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

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

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

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



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

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

Quick coupler hydraulic circuits for Cat 325C LCR are available as retrofit kits. Caterpillar offers two kits that are dedicated to CW and Pin Grabber Plus coupler. Ask your Cat dealer for more specific information.



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

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

**Multi-Grapple.** The multi-grapple with unlimited left and right rotation is the ideal tool for stripping, sorting, handling and loading.

**Orange Peel Grapple.** Specifically designed for handling scrap and rock in recycling and transfer applications.

**Hammer.** With their wide variety of tools, Cat hammers provide the perfect match for maximum life, efficiency, and productivity.



## Serviceability

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



### Extended Service Intervals.

Extended service and maintenance intervals reduce service time and increase machine availability. Use of oil-free bearing extends front linkage greasing interval to 1000 hours, except in the bucket area, which has been extended to 100 hours.



### Ground Level Maintenance.

The 325C LCR was designed with full consideration given to ground level maintenance. This includes ground level access to the engine oil filter, fuel water separator, air filters, batteries, and the pilot and drain hydraulic filters.

### Pre-Start Monitoring System.

This system allows the operator to check coolant, hydraulic oil and engine oil levels from the monitor inside the cab.

### Anti-Skid "Pressed-Star" Plate.

The top of the storage box and surface of the upper structure are covered with "pressed-star" plate to prevent the service person or operator from slipping during maintenance.

**Handrail and Steps.** Larger handrails and steps make it easier for the operator to climb on and off the machine.

**Fan Guard.** Engine radiator fan and oil cooler are completely enclosed by fine wire mesh, reducing the risk of injury.

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

**Service Doors.** Service doors are located on both sides of the upper structure. The doors make it easy to reach maintenance items such as the engine radiator or any hydraulic components from ground level. Openings are large and service doors latch in the full open position.

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

**Fuel-Water Separator.** The water separator has a primary fuel filter element and is located in the radiator compartment for easy access from the ground.



## Engine

Cat 3126B ATAAC diesel engine	
Net Power at 1800 rpm	
ISO 9249	140 kW/190 hp
EEC 80/1269	140 kW/190 hp
Bore	110 mm
Stroke	127 mm
Displacement	7.2 liters

- The 3126B engine meets EU directive 97/68/EC Stage II emission requirements.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- All engine horsepowers are metric including front page.
- No engine derating required below 2300 m altitude.

## Track Width

Standard	850 mm
Optional	750, 600 mm

## Weights

Depend on final machine configuration.

	kg
Operating weight*	35 400
Counterweight	7590
Boom 6150 mm	1920
Stick 3200 mm	1300
Stick 2650 mm	1120

\* 6150 mm reach boom, 3200 mm stick, and 1.2 m<sup>3</sup> bucket.

## Service Refill Capacities

	Liter
Fuel tank capacity	348
Cooling system	30
Engine oil	34
Swing drive	8
Final drive (each)	15
Hydraulic system (including tank)	322
Hydraulic tank	155

## Hydraulic System

Main implement system	
Maximum flow (2x)	235 l/min
Maximum pressure	
Implements	343 bar
Travel	343 bar
Swing	275 bar
Pilot system	
Maximum flow	36 l/min
Maximum pressure	41 bar
Boom cylinder	
Bore	140 mm
Stroke	1407 mm
Stick cylinder	
Bore	150 mm
Stroke	1646 mm
C Family bucket cylinder	
Bore	130 mm
Stroke	1156 mm

## Drive

Maximum travel speed	4.3 km/h
Maximum drawbar pull	308 kN

## Swing Mechanism

Swing speed	10.2 rpm
Swing torque	82.2 kNm

## Cab

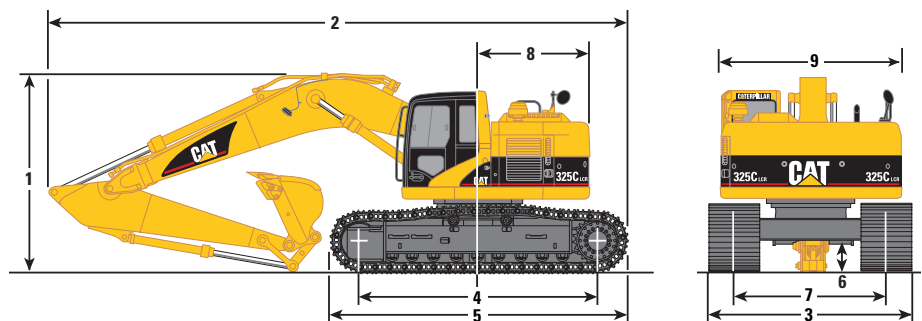
Cab/FOGS meets ISO 10262.

## Sound

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

## Dimensions

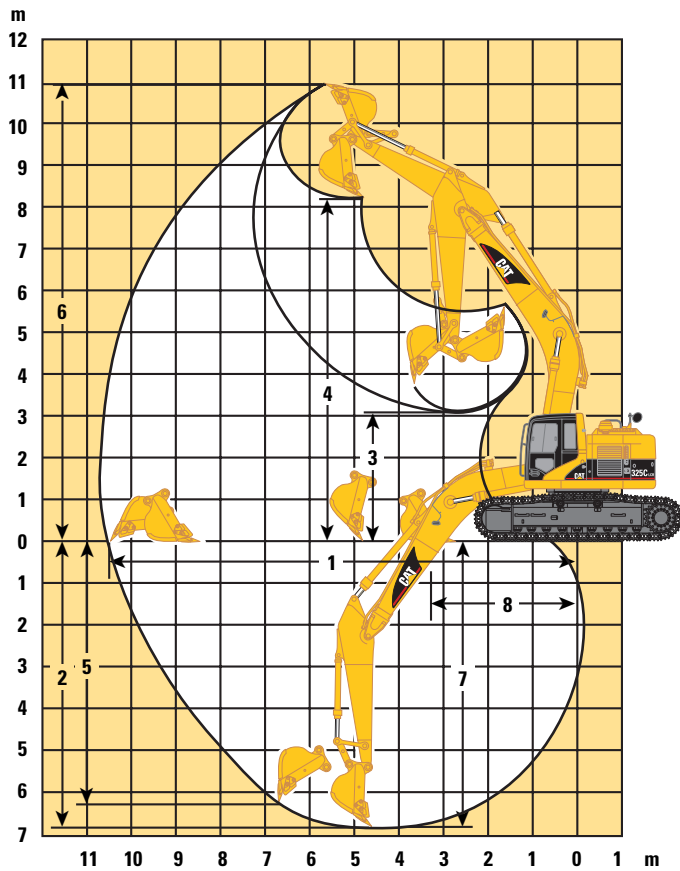
All dimensions are approximate.



	mm
<b>1</b> Shipping height	
with 3200 mm stick	3380
with 2650 mm stick	3330
<b>2</b> Shipping length	9830
<b>3</b> Shipping width	
with 850 mm shoes	3440
with 750 mm shoes	3340
with 600 mm shoes	3190

	mm
<b>4</b> Length to centers of rollers	4040
<b>5</b> Track length	5060
<b>6</b> Ground clearance	540
<b>7</b> Track gauge	2590
<b>8</b> Tail swing radius	1900
<b>9</b> Body width	3070

# Working Ranges with Reach Boom (6150 mm)



Stick Length	mm	3200	2650
Bucket	m <sup>3</sup>	1.2	1.2
1 Maximum Reach at Ground Level	mm	10 470	9970
2 Maximum Digging Depth	mm	6830	6280
3 Minimum Loading Height	mm	3080	3640
4 Maximum Loading Height	mm	8130	7850
5 Maximum Vertical Wall Digging Depth	mm	6580	5590
6 Maximum Cutting Height	mm	11 050	10 770
7 Maximum Depth for Cut for 2440 mm Level Bottom	mm	6670	6090
8 Minimum Front Swing Radius	mm	3360	3470
Bucket Tip Radius	mm	1556	1556
Bucket Forces (ISO 6015)	mm	150	156
Stick Forces (ISO 6015)	mm	133	147

The below 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 below lifting capacities.

# Lift Capacities with Reach Boom (6150 mm)


All weights are in kg

**Stick**  
2650 mm

**Shoes**  
850 mm

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

**Bucket Weight**  
893 kg


	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
9.0 m													*3950	*3950	7.02
7.5 m							*6900	*6900					*3600	*3600	8.39
6.0 m							*7350	*7350	*6800	5300			*3500	*3500	9.24
4.5 m					*10 550	*10 550	*8300	7550	*7150	5200			*3550	3350	9.71
3.0 m					*13 000	11 100	*9450	7150	*7700	5050			*3700	3150	9.89
1.5 m					*14 550	10 450	*10 350	6800	*8150	4850			*4000	3150	9.78
0 m					*14 700	10 150	*10 700	6600	*8300	4750			*4450	3350	9.39
-1.5 m			*9800	*9800	*13 900	10 100	*10 350	6500	*7900	4700			*5200	3850	8.66
-3.0 m			*15 950	*15 950	*12 100	10 250	*9100	6600					*5250	4900	7.49
-4.5 m			*11 350	*11 350	*8800	*8800							*6000	*6000	5.92

**Stick**  
3200 mm

**Shoes**  
850 mm

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

**Bucket Weight**  
893 kg

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
7.5 m							*6100	*6100	*4950	*4950			*2800	*2800	8.99
6.0 m							*6700	*6700	*6250	5400			*2750	*2750	9.77
4.5 m					*9500	*9500	*7700	7650	*6700	5250	*4500	3750	*2750	*2750	10.22
3.0 m					*12 050	11 400	*8900	7250	*7300	5050	*6050	3650	*2900	*2900	10.38
1.5 m					*14 000	10 600	*10 000	6850	*7900	4850	*6450	3600	*3150	2850	10.28
0 m			*5100	*5100	*14 700	10 150	*10 550	6600	*8200	4700	*6350	3500	*3500	3050	9.91
-1.5 m	*5900	*5900	*9350	*9350	*14 300	10 050	*10 500	6450	*8050	4600			*4100	3400	9.23
-3.0 m	*10 300	*10 300	*14 900	*14 900	*12 900	10 100	*9600	6500	*7100	4650			*5200	4200	8.16
-4.5 m			*13 750	*13 750	*10 250	*10 250	*7450	6650					*4200	*4200	6.52

\* Limited by hydraulic rather than tipping load.



## Standard Equipment

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

### Auxiliary Hydraulics

High pressure flow combined hydraulics  
(1 pump/2 pump, 1-way/2-way with select switch), foot pedal control

### Electrical

Alternator, 65A  
Working light, boom  
Horn  
Travel alarm

### Front Linkage

Reach boom 6150 mm  
C-Family bucket linkage

### Operator Environment

Air conditioner, semi-automatic  
AM/FM radio with speakers  
Ashtray  
Beverage holder  
Coat hook  
Door, sliding  
Floor mat, washable  
FOGS ready (bolt-on capability)  
Hydraulic neutralizer lever for all controls

Joystick type controls, pilot operated  
Laminated front windshield  
Language display monitor with gauges  
Error code and tool mode setting information  
Filter/Fluid change information  
Full time clock  
Machine condition  
Start-up fluid level check for:  
Hydraulic oil  
Engine oil and coolant  
Warning messages  
Working hour information  
Lighting, interior  
Literature holder  
Pop-up sky light with sun shade  
Retractable front windshield with assist device  
Seat, suspension type  
Adjustable armrests  
Retractable seat belt  
Storage compartment  
Travel control pedals with footrests  
Windshield wiper with washer, upper

### Power Train

Automatic engine speed control  
With one touch control  
Caterpillar 3126B ATAAC HEUI fuel system  
2300 m altitude capability without deration  
24-volt electric starting  
Air intake heater  
Air-to-air aftercooling  
Cooling  
Protection at 43°C to -18°C at 50% concentration  
Two-speed auto-shift travel  
Water separator in fuel line

### Undercarriage

330C L size undercarriage  
Track-type undercarriage with grease lubricated seals  
850 mm triple grouser shoes

### Other Standard Equipment

Air pre-filter  
Automatic swing brake  
Automatic work modes  
Counterweight 7588 kg  
Door locks and cap locks with One-key security system  
Mirrors  
Wave fin radiator

## Optional Equipment

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

### Auxiliary Hydraulics

Hydraulic pin grabber type quick coupler circuit  
Medium pressure circuit with left hand joystick modulation  
Medium pressure lines for boom/stick  
Quick coupler lines for boom/stick

### Guarding

Falling object guarding system (FOGS)  
Front windshield guard (wire mesh type)  
Vandalism guards

### Front Linkage

Sticks  
2650 mm, 3200 mm

### Undercarriage

Triple grouser shoes  
600 mm, 750 mm  
Full length track guiding guard  
Dozer blade

# 325C LCR Hydraulic Excavator

HEHH3285 (03/2005) hr

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

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