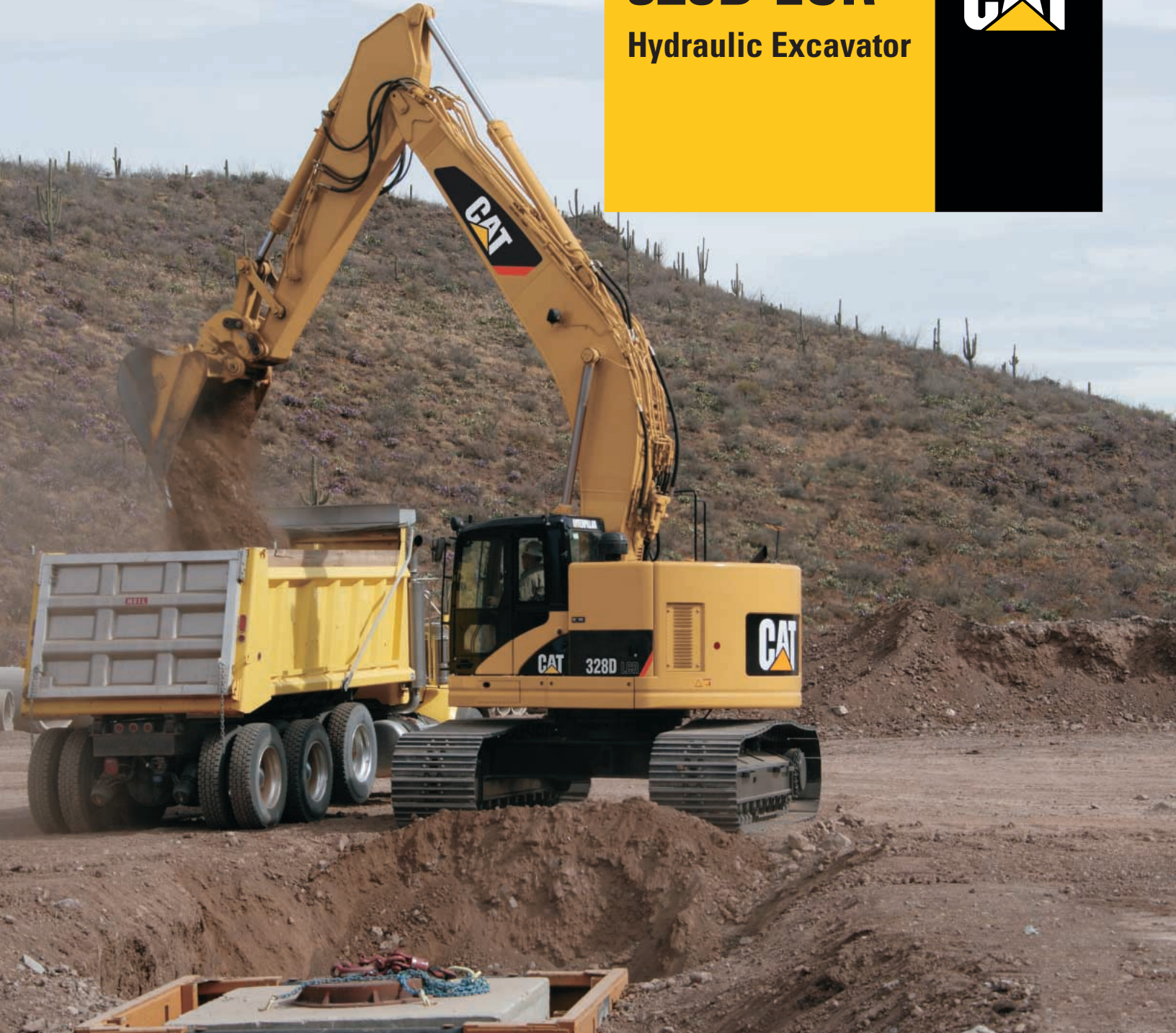


# 328D LCR

Hydraulic Excavator



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## Engine

Engine Model	Cat <sup>®</sup> C7 ACERT™	
Net Power – ISO 9249	152 kW	204 hp
Net Power – SAE J1349	151 kW	202 hp

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## Weights

Operating Weight	32 900 kg	72,500 lb
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- Reach Boom, R2.65CB2 (8 ft 8 in), 600 mm (24 in) Shoes.

# 328D LCR Hydraulic Excavator

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

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## C7 with ACERT™ Technology

- ✓ ACERT™ Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions with exceptional performance capabilities and proven reliability. **pg. 4**

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## Hydraulics

The hydraulic system has been designed to provide reliability and outstanding controllability. An optional Tool Control System provides enhanced flexibility. **pg. 5**

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## Operator Station

- ✓ Provides maximum space, improved 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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## Versatility

Caterpillar offers a wide variety of factory-installed attachments that enhance performance and job site management. **pg. 10**

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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**

*The Caterpillar 328D LCR 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 328D LCR offer you the tools to help lower your owning and operating costs.*





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### Structures

Caterpillar® design and manufacturing techniques assure outstanding durability and service life. **pg. 8**

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### Boom, Stick and Buckets

Designed for maximum flexibility, productivity and high efficiency on all jobs. **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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### Complete Customer Support

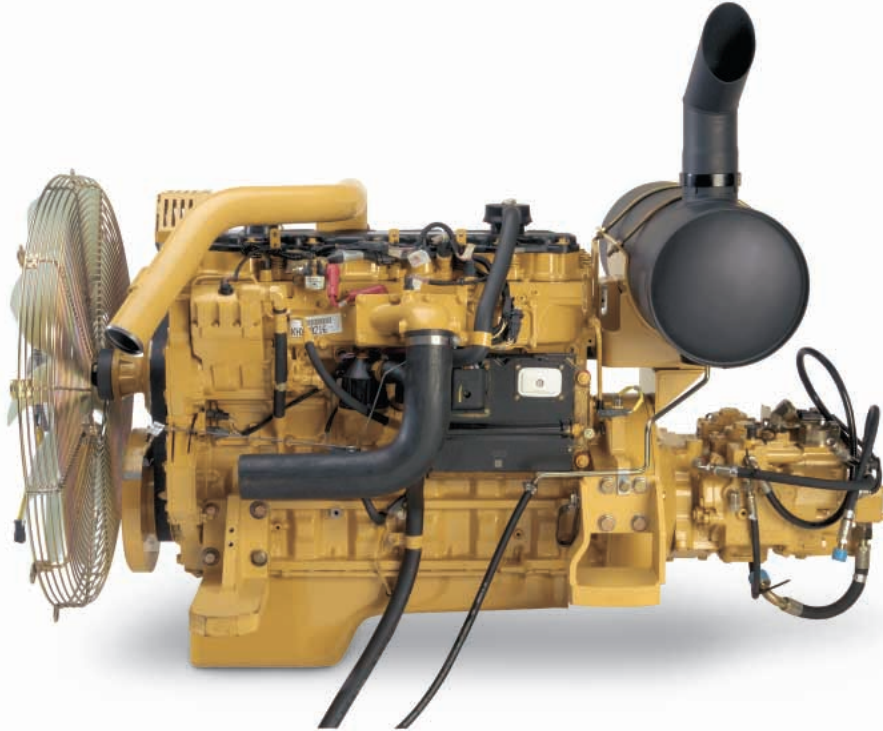
Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine configuration to eventual replacement. **pg. 11**



✓ *New Feature*

## C7 with ACERT™ Technology

*Built for power, reliability and economy.*



**Performance.** The Cat C7 with ACERT Technology™ delivers the power and control you need in order to get the job done quickly and efficiently in all applications.

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

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

### **ADEM™ A4 Engine Controller.**

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

### **Electronic Control Module.**

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

**Fuel Delivery.** The Cat C7 features electronic controls that govern the fuel injection system. Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the combustion cycle lowers combustion chamber temperatures, generating fewer emissions and optimizing fuel combustion. This translates into more work output for your fuel cost.

**Cooling System.** The cooling fan is directly driven from the engine. An electrically controlled viscous clutch fan is utilized to reduce fan noise. The optimum fan speed is calculated based on the target engine speed, coolant temperature, hydraulic oil temperature and actual fan speed. The 328D LCR incorporates side by side cooling, allowing easy access to keep the cooling cores free of debris.

**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.

### **Noise Reduction Technologies.**

The engine mounts are rubber-isolating mounts matched with the engine package. Further noise reduction has been achieved through design changes to the isolated top cover, oil pan, multiple injection strategy, insulated timing cover, sculpted crankcase and gear train refinements.

## Hydraulics

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

**Component Layout.** The 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. This allows for shorter tubes and lines between components, which reduce friction loss, and pressure drops in the lines. 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. Hot air and corresponding engine sound exits on the opposite side away from the operator. This reduces engine compartment heat and sound being transmitted to the operator.

**Pilot System.** The pilot pump is independent from the main pumps and controls the front linkage, swing and travel operations. The independent pilot pump provides smooth and consistent control in all operations regardless of engine speed or hydraulic demand.

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

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



**Auxiliary Hydraulic Valve.** The auxiliary valve is standard on the 328D LCR. Control Circuits are available as attachments, allowing for operation of high and medium pressure tools. These include shears, grapples, hammers, pulverizers, multi-processors and vibratory plate compactors.

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



## Operator Station

*Designed for comfort, simple and easy operation, the 328D LCR allows the operator to focus on production.*



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



**Monitor.** The monitor is a full color 400 × 234 pixels Liquid Crystal Display (LCD) graphic display.

The angle can be adjusted to minimize sun glare and has the capability of displaying information in twenty-seven different languages.

**Pre-Start Check.** Prior to starting the machine, the system will check for low fluid levels. These include engine oil, hydraulic oil and engine coolant. The event display area warns the operator if one of the conditions exists.

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

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

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

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

**Seat.** The 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 for optimal comfort levels.

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

**Hydraulic Activation Control Lever.**

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

**Automatic Climate Control.**

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



**Console.** Re-designed 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.** All glass is affixed directly to the cab for excellent visibility 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.

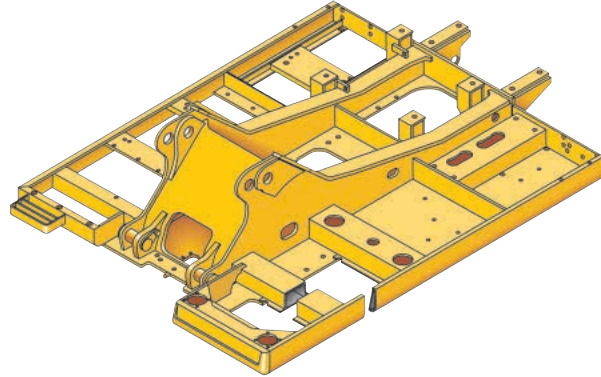
**Skylight.** An enlarged skylight with sunshade provides excellent visibility and ventilation.

**Door.** The 328D LCR features a curved sliding door. This feature is ideal for those situations when space is restricted and opening a conventional door is not permissible.



## Structures

*328D LCR structural components and undercarriage are the backbone of the machine's durability.*



**Robotic Welding.** Up to 95% of the structural welds on a Caterpillar® Excavator are completed by robots. Robotic welds achieve over three times the penetration of manual welds.

**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.

**Swing Bearing.** The swing bearing utilizes cross roller bearings versus the traditional ball bearing design. The cross roller bearing design allows for more surface contact to absorb the stresses that are a result of the high swing torque that Cat offers. It provides exceptional machine stability and reduces machine pitching during boom down operation.

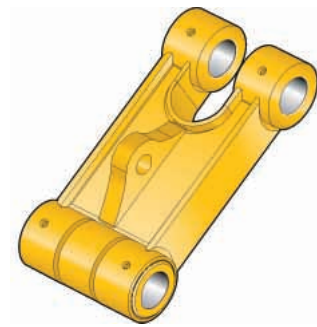
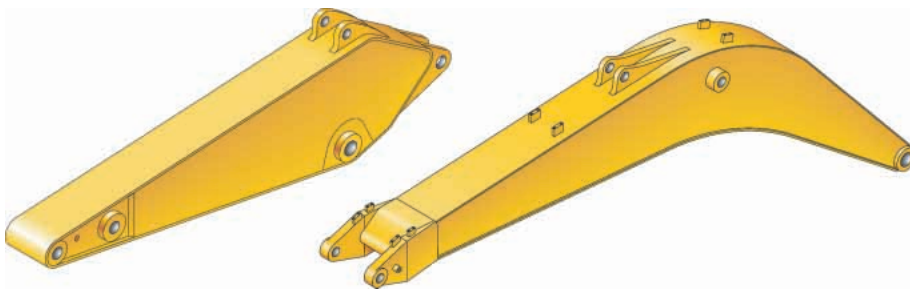
**Undercarriage.** Durable Cat undercarriage absorbs stresses and provides excellent stability.

**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. Two additional track links that have been added to the 328D LCR. This long, wide, and sturdy undercarriage offers a very stable work platform.

## Boom, Stick and Buckets

*Designed for maximum flexibility, productivity and high efficiency on all jobs.*



**Reach Boom.** The reach boom features an optimum design that maximizes digging envelopes with three stick choices:

**R3.2CB2 Stick.** The CB-family buckets associated with these sticks have enough capacity for excellent reach and depth in trenching and general construction applications.

**Linkage Pins.** The bucket linkage pins have been enlarged to improve reliability and durability. 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 with the integrated lift-eye it is easier to use than compared to the previous power link.



## Work Tools – Attachments

*The 328D LCR has an extensive selection of work tools to optimize machine performance.*



**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.

**General Purpose Capacity (GP-C) Buckets.** General Purpose Capacity Buckets are best for digging in soft to hard ground with low to moderately abrasive materials.

**Heavy-Duty Power (HDP) Buckets.** For use in moderately abrasive applications where breakout force and cycle times are critical. Maximizes tip force and improves cycle times in most materials.

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

- Thicker 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 side cutters for best fill characteristics and bucket wear protection

### **Ditch Cleaning (DC) Buckets.**

These wide shallow buckets are best for bank forming, ditch cleaning, and finishing.

### **Caterpillar Ground Engaging Tools (GET).**

All buckets in the CB Family utilize the Caterpillar K Series™ GET. This GET system uses a vertical retainer that is easier to remove and install than the Cat J Series pin. The tip shapes are more aggressive and offer better penetration than the previous generation of tips. There are also a variety of side cutters and sidebar protectors to match operating conditions.



*Thumbs*

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



*Hammers*

Cat Hydraulic Hammers are precisely matched to Cat machines for optimum performance in a wide variety of demolition and construction applications.



*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.

## Versatility

*A wide variety of optional factory-installed attachments to enhance performance and improve job site management.*

**Auxiliary Hydraulics Options.** There are two different options that can be factory installed to meet the various demands for hydra-mechanical tools.

- Single-Function
- Double-Function

### Single-Function Auxiliary Hydraulics.

This single-function circuit utilizes one-way flow action with two pumps. The circuit can run tools such as hammers and vibratory plate compactors.

### Double-Function Auxiliary Hydraulics.

The double-function circuit utilizes two-way flow and one pump. It is capable of running tools such as a thumb, tilt-bucket or non-rotating grapples or shears.

**Product Link.** The system can be installed in the field or as a factory-installed attachment. Product Link can assist with Fleet Management that will keep track of hours, location, security and product health.

**Machine Security.** An optional Machine Security System is available from the factory. Utilization of specific keys prevents unauthorized machine use and is a theft deterrent.



*Pin Grabber Plus Hydraulic Pin Grabber*

**Hydraulic Quick Coupler.** Increases versatility of the excavator by allowing the machine to pick up a wide variety of work tools without leaving the cab.

## Service and Maintenance

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



**Ground Level Service.** The design and layout 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.

**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.

**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 328D LCR is equipped with S•O•S<sup>SM</sup> sampling 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 in the cab.

**Extended Service Interval.** 328D LCR 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.

### **Customer Support Agreements.**

Cat dealers offer a variety of product support agreements, and work with customers to develop a plan that 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™.**

## Engine

Engine Model	Cat® C7 ACERT™	
Net Power – ISO 9249	152 kW	204 hp
Net Power – SAE J1349	151 kW	202 hp
Bore	110 mm	4.3 in
Stroke	127 mm	5 in
Displacement	7.2 L	440 in <sup>3</sup>

- 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 (7,500 ft).

## Weights

Operating Weight	32 900 kg	72,500 lb
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- Reach Boom, R2.65CB2 (8 ft 8 in), 600 mm (24 in) Shoes.

## Service Refill Capacities

Fuel Tank Capacity	406 L	106 gal
Cooling System	32 L	8.5 gal
Engine Oil	32 L	8.5 gal
Swing Drive	10 L	2.6 gal
Final Drive (each)	8 L	2.1 gal
Hydraulic System (including tank)	290 L	76.6 gal
Hydraulic Tank	153 L	40.4 gal

## Swing Mechanism

Swing Speed	10.2 rpm	
Swing Torque	82.2 kN·m	60,628 lb ft

## Drive

Maximum Drawbar Pull	300 kN	67,443 lb
Maximum Travel Speed	4.2 km/h	2.6 mph

## Hydraulic System

Main Implement System – Maximum Flow (2x)	235 L/min	62 gal/min
Max. pressure – Equipment	35 000 kPa	5,076 psi
Max. pressure – Heavy Lift	36 000 kPa	5,221 psi
Max. pressure – Travel	35 000 kPa	5,076 psi
Max. pressure – Swing	27 500 kPa	3,989 psi
Pilot System – Maximum flow	32.4 L/min	8.6 gal/min
Pilot System – Maximum pressure	3900 kPa	566 psi
Boom Cylinder – Bore	140 mm	5.5 in
Boom Cylinder – Stroke	1407 mm	55.4 in
Stick Cylinder – Bore	150 mm	5.9 in
Stick Cylinder – Stroke	1646 mm	64.8 in
CB1 Family Bucket Cylinder – Bore	135 mm	5.3 in
CB1 Family Bucket Cylinder – Stroke	1156 mm	46 in

## Sound Performance

Performance	ANSI/SAE
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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 ISO 10262

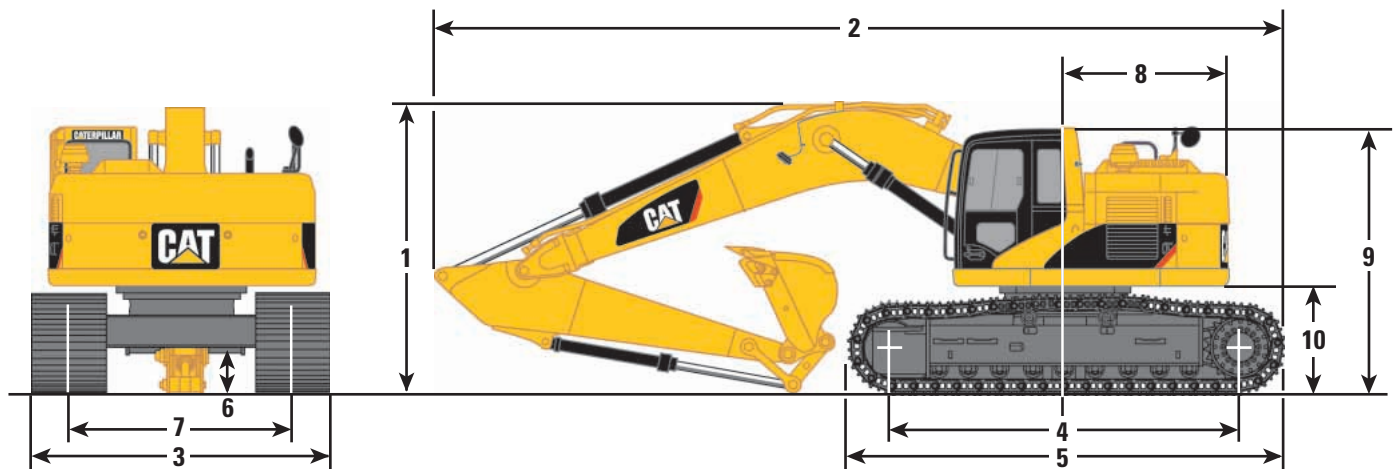
## Track

Optional – Triple Grouser	850 mm	34 in
Optional – Double Grouser	600 mm	24 in
Number of Shoes Each Side – Long Undercarriage	49	
Number of Track Rollers Each Side – Long Undercarriage	9	
Number of Carrier Rollers Each Side – Long Undercarriage	2	



## Dimensions

All dimensions are approximate.



### Boom Options

Reach  
6.15 m (20'2")

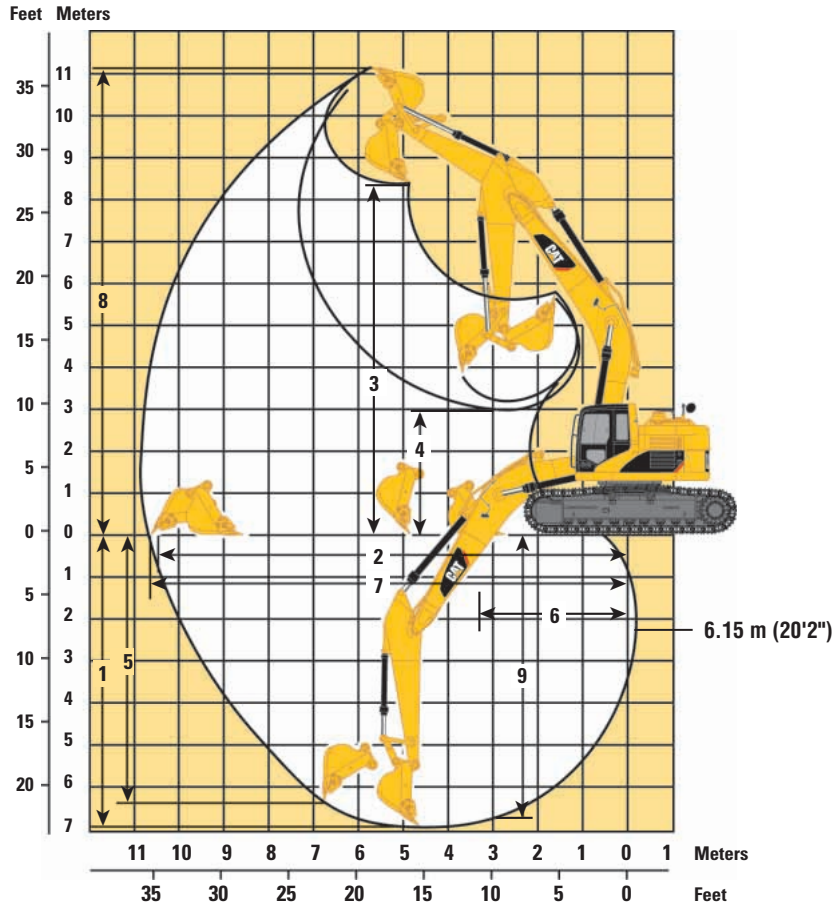
### Stick Options

R3.2CB2 m (10'6")

<b>1</b> Shipping Height	3370 mm (11'1")
<b>2</b> Shipping Length	9820 mm (32'3")
<b>3</b> Tail Swing Radius	1900 mm (6'3")
<b>4</b> Length to Center of Idler and Sprocket	4040 mm (13'3")
<b>5</b> Track Length	5020 mm (16'6")
<b>6</b> Ground Clearance	510 mm (1'8")
<b>7</b> Track Gauge	2590 mm (8'6")
<b>8</b> Transport Width	
850 mm (34") shoes	3440 mm (11'3")
600 mm (24") shoes	3190 mm (10'6")
<b>9</b> Cab Height	3190 mm (10'0")
<b>10</b> Counterweight Clearance	1200 mm (3'11")

Note: All numbers are approximate.

# Working Ranges



## Boom

### Stick Length

### Bucket

1	Maximum Digging Depth	6920 mm (22'8")
2	Maximum Reach at Ground Level	10 560 mm (34'8")
3	Maximum Loading Height	8040 mm (26'5")
4	Minimum Loading Height	2990 mm (9'10")
5	Maximum Vertical Wall Digging Depth	6260 mm (20'6")
6	Minimum Front Swing Radius	3400 mm (11'2")
7	Maximum Reach	10 770 mm (35'4")
8	Maximum Cutting Height	11 110 mm (36'5")
9	Maximum Depth Cut for 2440 m (8') Level Bottom	6760 mm (22'2")

## Reach

6.15 m (20'2")

R3.2CB2 m (10'6")

HD 1.2 m<sup>3</sup> (1.57 yd<sup>3</sup>)



## 328D LCR Bucket and Stick Forces

### HD 1.2 m<sup>3</sup> (1.57 yd<sup>3</sup>) Bucket

Stick	R3.2CB2	
Bucket Digging Force (ISO)	188 kN	42,264 lb
Stick Digging Force (ISO)	128 kN	28,776 lb
Bucket Digging Force (SAE)	166 kN	37,318 lb
Stick Digging Force (SAE)	124 kN	27,876 lb

## Major Component Weights

Base machine with counterweight (without front linkage)	with 850 mm (34") shoe	29 700 kg	65,477 lb
Two boom cylinders (each)		240 kg	529 lb
Counterweight			
Standard counterweight		7720 kg	17,020 lb
Boom (includes lines, pins and stick cylinder)			
Reach boom 6.15 m (20'2")		2300 kg	5,071 lb
Stick (includes lines, pins, bucket cylinder and linkage)			
R3.2CB2 m (10'6")		1390 kg	3,064 lb

Note: All weights are approximate.

# Reach Boom Lift Capacities



Load Point Height



Load Radius Over Front



Load Radius Over Side



















Load at Maximum Reach

**R3.2CB2 STICK** – 3200 mm (10'6")  
**BUCKET** – 1.2 m<sup>3</sup> (1.57 yd<sup>3</sup>)

**UNDERCARRIAGE** – Long  
**SHOES** – 600 mm (24") triple grouser

**BOOM** – Reach  
**HEAVY LIFT** – Off

















	1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)				m ft	
																
9.0 m 30.0 ft	kg lb													*3000 *6,650	*3000 *6,650	7.85 25.27
7.5 m 25.0 ft	kg lb								*4850 *9,600	*4850 *9,600				*2800 *6,100	*2800 *6,100	9.05 29.43
6.0 m 20.0 ft	kg lb						*6650 *14,450	*6650 *14,450	*6200 *13,500	5150 11,050				*2700 *5,950	*2700 *5,950	9.80 32.04
4.5 m 15.0 ft	kg lb				*9400 *20,200	*9400 *20,200	*7650 *16,600	7400 15,850	*6700 *14,550	5050 10,750	*4700 *8,700	3550 7,550		*2750 *6,000	*2750 *6,000	10.24 33.55
3.0 m 10.0 ft	kg lb				*12 050 *25,850	10 950 23,600	*8950 *19,300	6950 14,950	*7350 *15,900	4800 10,300	*6150 *12,200	3450 7,400		*2850 *6,300	2650 5,850	10.40 34.12
1.5 m 5.0 ft	kg lb				*14 100 *30,400	10 150 21,800	*10 050 *21,750	6550 14,050	*7950 *17,200	4600 9,850	6100 13,050	3350 7,200		*3100 *6,800	2650 5,850	10.30 33.82
Ground Line	kg lb			*5700 *13,000	*5700 *13,000	*14 900 *32,250	9700 20,800	*10 700 *23,150	6250 13,400	8000 17,200	4450 9,500	6000 *12,700	3300 7,050	*3450 *7,600	2800 6,150	9.94 32.62
-1.5 m -5.0 ft	kg lb	*6150 *13,700	*6150 *13,700	*9700 *21,950	*9700 *21,950	*14 600 *31,600	9550 20,500	*10 700 *23,100	6100 13,150	7900 17,000	4350 9,350			*4050 *8,950	3150 6,950	9.29 30.43
-3.0 m -10.0 ft	kg lb	*10 400 *23,300	*10 400 *23,300	*15 000 *34,100	*15 000 *34,100	*13 300 *28,700	9600 20,650	*9900 *21,250	6150 13,150	*7350 *15,650	4400 9,400			*5100 *11,300	3900 8,600	8.26 26.97
-4.5 m -15.0 ft	kg lb			*14 500 *31,050	*14 500 *31,050	*10 700 *22,850	9850 21,200	*7800 *16,450	6300 13,600					*4350 *9,400	*4350 *9,400	6.66 21.59

\* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

**R3.2CB2 STICK** – 3200 mm (10'6")  
**BUCKET** – 1.2 m<sup>3</sup> (1.57 yd<sup>3</sup>)

**UNDERCARRIAGE** – Long  
**SHOES** – 600 mm (24") triple grouser

**BOOM** – Reach  
**HEAVY LIFT** – On

	1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)				m ft	
																
9.0 m 30.0 ft	kg lb													*3100 *6,900	*3100 *6,900	7.85 25.27
7.5 m 25.0 ft	kg lb								*5000 *9,950	*5000 *9,950				*2900 *6,350	*2900 *6,350	9.05 29.43
6.0 m 20.0 ft	kg lb						*6900 *15,000	*6900 *15,000	*6450 *13,950	5150 11,050				*2800 *6,200	*2800 *6,200	9.80 32.04
4.5 m 15.0 ft	kg lb				*9700 *20,900	*9700 *20,900	*7950 *17,200	7400 15,850	*6950 *15,100	5050 10,750	*4900 *9,050	3550 7,550		*2850 *6,250	2800 6,200	10.24 33.55
3.0 m 10.0 ft	kg lb				*12 450 *26,750	10 950 23,600	*9250 *20,000	6950 14,950	*7650 *16,550	4800 10,300	*6200 *12,650	3450 7,400		*3000 *6,550	2650 5,850	10.40 34.12
1.5 m 5.0 ft	kg lb				*14 600 *31,500	10 150 21,800	*10 450 *22,550	6550 14,050	*8200 *17,600	4600 9,850	6100 13,050	3350 7,200		*3200 *7,050	2650 5,850	10.30 33.82
Ground Line	kg lb			*5900 *13,450	*5900 *13,450	*15 450 *33,400	9700 20,800	*11 100 *24,000	6250 13,400	8000 17,200	4450 9,500	6000 12,900	3300 7,050	*3600 *7,900	2800 6,150	9.94 32.62
-1.5 m -5.0 ft	kg lb	*6350 *14,200	*6350 *14,200	*10 000 *22,650	*10 000 *22,650	*15 100 *32,750	9550 20,500	*11 100 *23,950	6100 13,150	7900 17,000	4350 9,350			*4200 *9,250	3150 6,950	9.29 30.43
-3.0 m -10.0 ft	kg lb	*10 750 *24,050	*10 750 *24,050	*15 500 *35,150	*15 500 *35,150	*13 750 *29,750	9600 20,650	*10 250 *22,100	6150 13,150	*7650 *16,300	4400 9,400			*5300 *11,700	3900 8,600	8.26 26.97
-4.5 m -15.0 ft	kg lb			*15 050 *32,250	*15 050 *32,250	*11 100 *23,750	9850 21,200	*8100 *17,100	6300 13,600					*4550 *9,850	*4550 *9,850	6.66 21.59

\* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

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



## Standard Equipment

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

### Electrical

- 65 Ampere alternator
- Base machine light (frame)
- Horn
- Pre-Start monitoring system – checks for low fluids (engine oil, coolant, hydraulic oil) prior to starting machine

### Operator Environment

- Air conditioner, heater, defroster with automatic climate control
- AM/FM Radio with antenna and 2 speakers
- Ashtray
- Beverage/cup holder
- Bolt-on Falling Object Guarding System (FOGS) capability
- Cab Glass
  - Openable and retractable two-piece front windshield
  - Sky-light, pop-up, polycarbonate
  - Rear window, emergency exit
- Coat Hook
- Floor mat
- Instrument panel and gauges
- Joysticks, console mounted, pilot operated
- Light, interior
- Literature compartment
- Monitor, full graphic color display
- Neutral lever (lock out) for all controls
- Polycarbonate side windows
- Positive filtered ventilation
- Pressurized cab
- Seat, suspension, with high back and head rest
- Seat belt, retractable – 76 mm (3")
- Sun shade (for skylight)
- Travel control pedals with removable hand levers
- Windshield wiper and washer

### Engine/Power Train

- Cat<sup>®</sup> C7 ACERT™
  - Air Intake Heater
  - Air-to-air Aftercooler (ATAAC)
  - 24V Electric Starting
  - Hydraulic electronic unit injectors (HEUI)
  - 3000 m (9,842 ft) Altitude capability without derate
- Automatic engine speed control with one touch low idle
- Cooling
  - Protection of 43° C to –18° C (109° F to 0° F) at 50% concentration
- Electric Priming Pump
- Straight line travel
- Two speed auto-shift travel
- Water separator in fuel line
  - Water level indicator for water separator

### Undercarriage

- Grease lubricated track
- Heavy-duty rollers
- Hydraulic track adjusters
- Idler and center section track guards

### Other Standard Equipment

- Automatic swing parking brake
- Auxiliary hydraulic valve
- Capability of stackable valves (max of 2) for main valve
- Capability of auxiliary circuit
- Counterweight – 7720 kg (17,020 lb)
- Door locks, cap locks and Caterpillar one key security system
- Fine swing control
- Fully pressurized hydraulic system
- Heavy Lift
- Mirrors (upper frame, rear)
- S•O•S<sup>SM</sup> quick sampling valves for engine and hydraulic oil
- Wiring provision for Product Link

## Optional Equipment

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

### Front Linkage

#### Booms

Reach 6.15 m (20 ft 2 in)

#### Sticks

Reach 3.2 m (10 ft 6 in)

### Bucket Linkage

CB1 Family

### Boom Lowering Control Device

### Electrical

Light, cab mounted (one)

Machine Security System (MSS)

Power Supply (12V-5 Amp)

Product Link (PL121SR/PL321SR)

Travel alarm

### Guarding

Falling Object Guarding System (FOGS)

Either as a system or separate (Top/Bottom)

Front windshield guard

Full length, wire mesh

Heavy-Duty Bottom Guards

Track Guiding Guards

Sprocket End, Idler end guard

Two-piece full length (center guard removed)

Vandalism Guards

### Operator Environment

Hand Control Pattern Changer (ISO-SAE)

Rear window, secondary exit (hinged)

### Engine/Power Train

Prefilter, Air

### Undercarriage

Track Shoes (mandatory attachment)

600 mm (24") triple grouser

850 mm (34") triple grouser

### Auxiliary Hydraulics

Hammer Circuit

For single function (1 way/2 pump) hydraulic tools

Thumb Circuit

For double function (2 way/1 pump) hydraulic tools

Medium Pressure Circuit for tools requiring medium pressure

Joystick with modulation switch (1 modulation switch and 3 on/off switch pre 1 J/S)

Hydraulic Pin Grabber Quick Coupler and controller

Lines for Booms and Sticks

### Work Tools

Wide Offering of Buckets, Tips and sidecutters available through Cat Work Tools directly





# 328D LCR Hydraulic Excavator

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

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

AEHQ5904-02 (4-08)

Replaces AEHQ5904-01

APD

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