



323D L

Hydraulic Excavator



Cat® C6.4 Engine with ACERT™ Technology

Net Power (ISO 9249) at 1800 rpm	110 kW/150 hp
Operating Weight	23 200 to 23 800 kg
Maximum Travel Speed	5.7 km/h
Maximum Reach	10 200 mm
Maximum Digging Depth	6680 mm

323D L Hydraulic Excavator

The D Series incorporates innovations for improved performance, controllability and versatility.

Engine

- ✓ The Cat® C6.4 engine with ACERT™ Technology offers better fuel efficiency and reduced wear. It works at the point of combustion to optimize engine performance and provide low exhaust emissions. By combining ACERT Technology with the new Economy Mode and Power Management, customers can balance the demands of performance and fuel economy to suit their requirements and application. **pg. 4**

Hydraulics

- ✓ The hydraulic system has been designed to provide reliability and outstanding controllability with increased digging forces, lifting capacity and drawbar pull. The Tool Control System provides enhanced flexibility. The Heavy Lift Mode maximizes lifting performance and maintains excellent stability. **pg. 5**

Operator Comfort

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

Environmentally Responsible Design

- ✓ Quieter operation, less fluid disposal and cleaner service can help you protect the environment. **pg. 4**

SmartBoom™

More productive. Faster cycle times for truck loading and rock scraping. Maintains optimum hammering frequency for effective, steady productivity. **pg. 5**

Excellent controllability and reliability, impressive lift capacity, better fuel efficiency, simplified service and a more comfortable operator station to increase your productivity and lower your operating costs.

✓ *New feature*



Versatility – Electronic Control Systems

- ✓ The compact, full-color, graphical display monitor displays machine, maintenance, diagnostic and prognostic information in twenty different languages. The new Economy Mode is also selected from the monitor. To minimize sun glare, the monitor angle is adjustable. Caterpillar offers a wide variety of factory-installed attachments that enhance performance. **pg. 7**

Booms, Sticks and Linkage

Caterpillar excavator booms and sticks are built for performance and long service life. Two types of booms and four sticks are available, offering a range of configurations suitable for a wide variety of applications. The bucket linkage pins have been enlarged to improve reliability and durability. All booms and sticks are stress relieved. **pg. 10**

Structures

Caterpillar design and manufacturing techniques assure outstanding durability and service life from these important components. The 323D comes standard with grease lubricated tracks. Cat designed excavator undercarriage is stable, durable and low maintenance for good machine stability and transportability. **pg. 8**

Work Tools

A variety of work tools, including buckets, couplers, hammers, crushers, pulverizers, multiprocessors, shears and grapples are available. **pg. 11**

Service and Maintenance

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

Complete Customer Support

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement. **pg. 9**



Engine

The Cat® C6.4 gives the 323D exceptional power and fuel efficiency unmatched in the industry for consistently high performance in all applications.



Performance. The Cat C6.4 engine with ACERT Technology offers more engine power, and runs at lower speeds for better fuel efficiency and reduced wear.

Power Management. Optimal machine performance for each type of application. The operator can change the engine power on the monitor from standard

to high. The high power mode is recommended for extremely productive areas and for hard digging 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.

Fuel Delivery. The Cat C6.4 features electronic controls that govern the fuel injection system. Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the

combustion cycle lowers combustion chamber temperatures, generating fewer emissions and optimizing fuel combustion. This translates into more work output for your fuel cost.

Cooling System. To reduce fan noise, the cooling fan is driven from a viscous clutch which is electrically controlled by the machine ECM. It calculates optimum fan speed based on the target engine speed, coolant temperature, hydraulic oil temperature and actual fan speed. The Cat C6.4 delivers a completely new layout that separates the cooling system from the engine compartment.

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.

Environmentally Responsible Design

Caterpillar machines not only help you build a better world, they help maintain and preserve the fragile environment.



Emissions. The Cat C6.4 with ACERT Technology introduces a series of evolutionary, incremental improvements that provide breakthrough engine technology built on systems and components developed by Caterpillar with proven reliability. The technology capitalizes on Cat expertise in three core engine systems: fuel, air and electronics. By combining ACERT Technology with the new Economy Mode, customers can balance the demands of performance and fuel economy to suit their requirements and application.

Fewer Leaks and Spills. Engine oil and encapsulated hydraulic oil filters are positioned vertically and are easy to reach to minimize spillage. Service intervals are extended to reduce the times fluids are changed and handled.

- Hydraulic oil service interval can be extended to 4000 hours with the S•O•S program.
- In addition to the S•O•S program fine filtration system attachment extends the service interval to 5000 hours.
- Cat Extended Life Coolant extends service to 12000 h, less need for fluid disposal.
- The hydraulic system is compatible with Cat HEES hydraulic bio-oil for ecologically sensitive applications.

Hydraulics

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



Component Layout. The 323D hydraulic system and component locations have been designed to provide a high level of system efficiency. The main pumps, control valves and hydraulic tank are located close together to allow for shorter tubes and lines between components, which reduce friction loss, and pressure drops 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 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.

Heavy Lift Mode. Maximizing lifting performance and boosting the lifting capability. Heavy loads can be easily moved in the full working range of the machine maintaining excellent stability.

Hydraulic Cross Sensing System.

The hydraulic cross sensing system utilizes each of two hydraulic pumps to 100%, under all operating conditions. This improves productivity with faster implement speeds and quicker, stronger pivot turns.

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

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.



Electronic Control System.

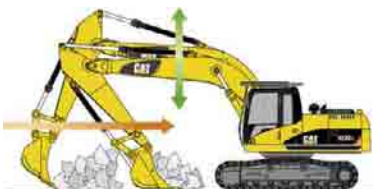
Ten hydraulic pump flow and pressure settings can be preset, eliminating the need to adjust the hydraulics each time a tool is changed. Ex factory Cat work tools matching the machine size class are standard preset.

Auxiliary Valve. The auxiliary valve is standard. Control circuits are optional, allowing for operation of high and medium pressure tools such as shears, grapples, hammers, pulverizers, etc.

Hydraulic Cylinder Snubbers.

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

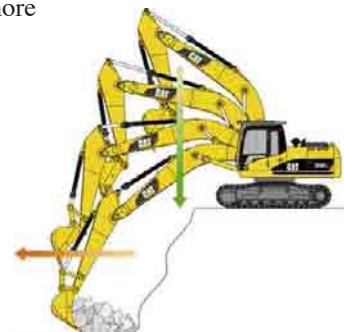
SmartBoom. Reduces stress and vibrations transmitted to the machine and provides a more comfortable environment.



Rock Scraping. Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows the operator to concentrate on stick and bucket, while boom freely goes up and down without using pump flow.



Hammer Work. The front parts automatically follow the hammer while penetrating the rock. Blank shots or excessive force on the hammer are avoided resulting in longer life for the hammer and the machine. Similar advantages with vibratory plates.



Truck Loading. Loading trucks from a bench is more productive and fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.

Operator Station

Designed for simple, easy operation and comfort, the 323D allows the operator to focus on production.



Operator Station. The workstation is spacious, quiet and comfortable, assuring high productivity during a long workday. 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.

Seat. An optional air suspension seat is available in the 323D. The standard and optional seats provide 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.

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 right console.

Hydraulic Activation Control Lever.

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

Controls. The 323D uses pilot operated control levers, positioned so the operator can operate with arms on the armrests. The vertical stroke is longer than the horizontal, reducing operator fatigue. The control lever grips are shaped to fit into the operator's hands. The horn switch and one-touch low idle switch are positioned on the left and right grip.

Implement Controls. Easy to handle joysticks with integrated push buttons and sliding switches control all implement and swing functions. The sliding switches provide modulated control for hydro-mechanical tools and are designed to increase operator comfort and reduce operator fatigue.



Skylight. A unique large polycarbonate skylight provides very good upward visibility, especially useful in above ground applications.

Windows. To maximize visibility, all glass is affixed directly to the cab eliminating the use of window frames. Choice of fixed or easy-to-open split front windshield meet operator preference and application conditions.

- 50/50 split front windshield allows both upper and lower portions to be stored in an overhead position.
- 70/30 split front windshield stores the upper portion above the operator. The lower front windshield features a rounded design to maximize downward visibility and improves wiper coverage.
- Both openable versions feature a one-touch action release system.
- The fixed front windshield is available in standard duty laminated glass or high impact resistant laminated glass.

Wiper. Designed to maximize visibility in poor weather conditions. The parallel wiper system covers almost the complete front window without leaving unwiped areas in the immediate line of sight of the operator.

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.

Versatility – Electronic Control Systems

Manages the engine and hydraulics for maximum performance and safety.



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

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

Monitor Display Screen. The monitor is a full color 400x234 pixels Liquid Crystal Display (LCD) graphic display.

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 Area. The clock and the throttle dial position are in this area and the gas-station icon with green color is also displayed.

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

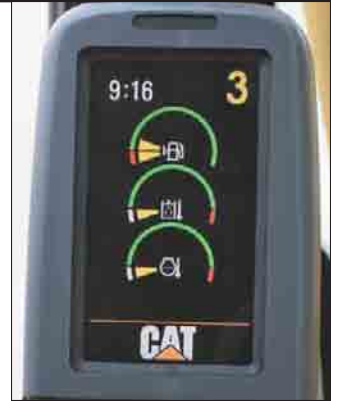
Event Display Area. Machine information is displayed in this area with the icon and language.

Multi-information Display Area. This area is reserved for displaying information that is convenient for the operator. The “CAT” logo mark is displayed when information to display does not exist.

Keypad. The keypad allows operator to select machine operation conditions and to set view preferences.

Auxiliary Hydraulic Options. Allows you to configure your 323D L to meet your work tools needs, while increasing its versatility, reduces machine service time and maximizes uptime:

- Single Function Circuit
 - Suited for tools that require one-way flow with both pumps, such as hammers and vibratory plate compactors
- Tool Control System
 - Accommodates single or double function tools
 - Stores pressure and flow information for up to 10 tools – Electronically adjustability of pressures and flows via monitor
 - Cat tools selectable from monitor's menu that have preset optimal flows and pressures
 - Shortcut button on right hand console, making tool selection easier.
 - Medium pressure circuit it accommodates e.g. rotation or tilting function

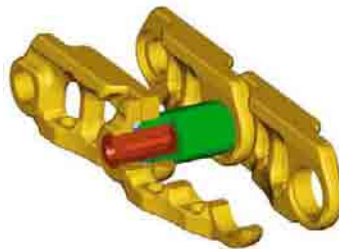
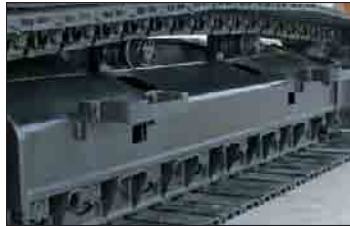


Product Link. Using satellite technology, this optional wireless system automatically reports information, including vital machine health data, to Cat dealers and customers via e-mail or pager. It can streamline diagnostic efforts, downtime, and maintenance scheduling and costs.

Machine Security. An optional Machine Security System is available from the factory on the 323D. This system controls when the machine can be operated and utilizes specific keys to prevent unauthorized machine use, a significant theft deterrent.

Structure

323D structural components and undercarriage are the backbone of the machine's durability.



Tracks. The 323D 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.

Structures. Proven structural manufacturing techniques, assure outstanding durability and service life from these important components.

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.

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

Service and Maintenance

Simplified service and maintenance 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.

Ground Level Service. The design and layout of the 323D was made with the service technician in mind. Many service locations are easily accessible at ground level allowing critical maintenance to get done quickly and efficiently.

Pump Compartment. A service door on the right side of the upper structure allows ground-level access to the pump and pilot filter.

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

Diagnostics and Monitoring. The 323D is equipped with S•O•SSM sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Electronic Technician (ET) service tool is located behind the cab.

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

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

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

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



Extended Service Intervals. 323D 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.



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

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

Customer Support Agreements.

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

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

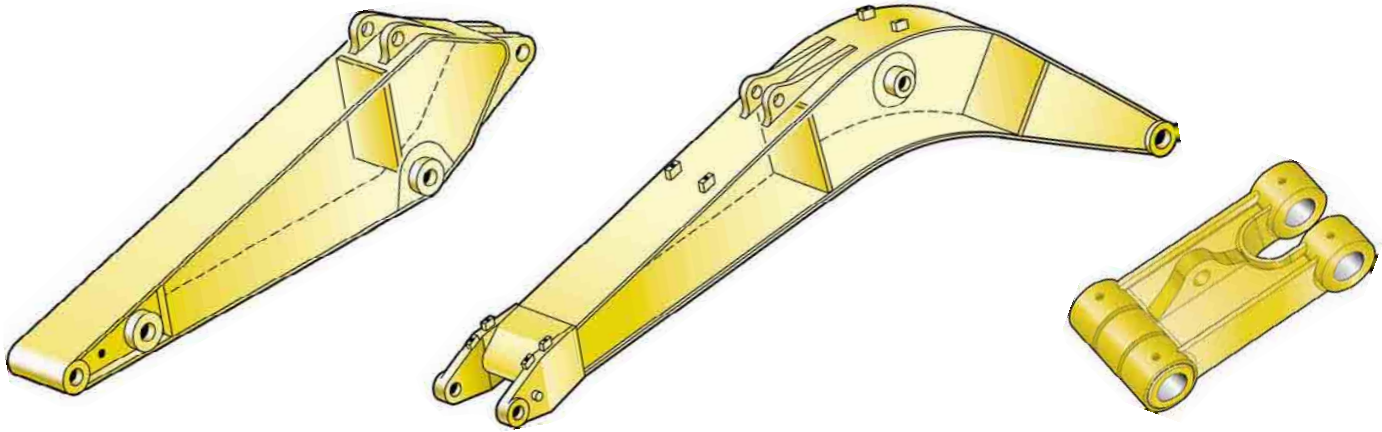
Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. You can save money with Cat remanufactured components.

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

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

Booms, Sticks and Linkage

Designed for flexibility, high productivity, and efficiency in a variety of applications.



Front Linkage Attachments. Select the right combination of front linkage with your Cat dealer to ensure high productivity from the very start of your job. Three types of booms and four sticks are available, offering a range of configurations suitable for a wide variety of applications and offer a large combination of reach and digging forces for optimum versatility. All booms and sticks undergo a stress relieving process for greater durability.

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

Reach Boom. The reach boom (5680 mm) is designed to balance reach, digging force bucket capacity, offering a wide range of applications as digging, loading, trenching and working with hydraulic tools.

Mass Excavation Boom. The mass boom (5200 mm) is designed to provide maximum digging forces, bucket capacity and truck loading productivity.

Stick Construction. Sticks are made of high-tensile strength steel using a large box section design with interior baffle plates and an additional bottom guard to protect against damage.

Reach Sticks. Three lengths of reach sticks are available to suite a variety of applications. Reach sticks use B1 and CB2 linkages.

- R2.9B1. The 2920 mm stick gives the largest working envelope with medium-sized buckets.
- R2.5B1. The 2500 mm stick uses larger capacity B1 family buckets and is best suited for trenching, excavation and general construction applications.
- R1.9CB2. The 1900 mm stick uses higher capacity CB family buckets for high production applications.

Mass Stick. The mass excavation stick is available for higher digging forces and increased bucket capacity.

- M1.9CB2. The 1900 mm stick provides excellent digging envelope with large bucket capacity and high force levels.



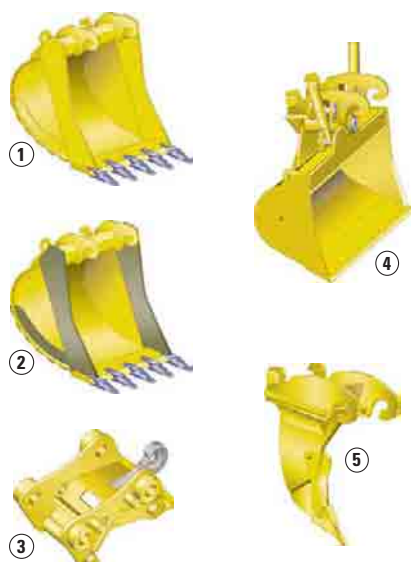
Bucket Linkage. Two bucket linkages (B1 and CB2) are available, with lifting eye on the power link.

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

Linkage Pins. All pins used in front linkages have thick chrome plating, giving them high wear and corrosion resistance. The large diameter pins smoothly distribute the shear and bending loads to help ensure long pin, boom and stick life.

Work Tools

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



- 1 Excavation (X)
- 2 Extreme Excavation (EX)
- 3 Quick Coupler
- 4 Ditch Cleaning
- 5 Ripper

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

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

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

Ripper. The Caterpillar TR-series ripper provides a powerful single point of penetration force to break out rock and other difficult to excavate material.



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

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

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

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

Vibratory Plate Compactors.

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

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

Engine

Cat C6.4 with ACERT Technology	
Net Power at 1800 rpm	
ISO 9249	110 kW/150 hp
80/1269/EEC	110 kW/150 hp
Bore	102 mm
Stroke	130 mm
Displacement	6.4 liter

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

Hydraulic System

Main System		B1 Family Bucket Cylinder	
Maximum flow	2 x 205 l/min	Bore	120 mm
Maximum pressure		Stroke	1104 mm
Normal	350 bar	CB2 Family Bucket Cylinder	
Heavy lift	360 bar	Bore	135 mm
Travel	350 bar	Stroke	1156 mm
Swing	250 bar		
Pilot System			
Maximum flow	32 l/min		
Maximum pressure	39 bar		
Boom Cylinder			
Bore	120 mm		
Stroke	1260 mm		
Stick Cylinder			
Bore	140 mm		
Stroke	1518 mm		

Cab/FOGS

Cab/FOGS meets ISO 10262.

Machine and Major Component Weights

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

		Reach boom 5680 mm			ME 5200 mm
Stick type		R1.9CB2	R2.5B1	R2.9B1	M1.9CB2
Stick length	mm	1900	2500	2920	1900
Bucket weight	kg	871	791	756	892
Bucket capacity	m³	1.4	1.3	1.2	1.5
Bucket width/type	mm	1350/X	1400/X	1300/X	1400/X
Operating weight*					
600 mm HD shoes	kg	23 494	23 249	23 252	23 540
800 mm shoes	kg	23 773	23 528	23 531	23 819
Ground pressure					
600 mm HD shoes	bar	0.54	0.53	0.53	0.54
800 mm shoes	bar	0.41	0.40	0.40	0.41
Stick weight (with bucket cylinder)	kg	872	909	951	872
Boom weight (with stick cylinder)	kg	1510			1536
Upperstructure (without counterweight)	kg	6616			6616
Undercarriage					
600 mm HD shoes	kg	7930			7930
Counterweight	kg	4400			4400

* With counterweight, quick coupler, auxiliary hydraulics, BLCV, SLCV, bucket, operator and full fuel

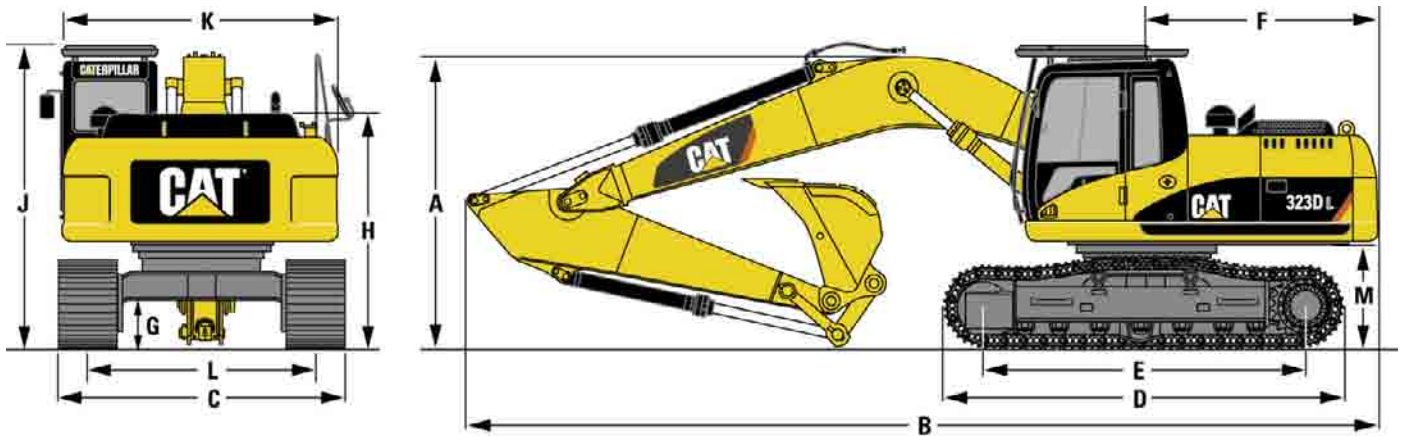
¹⁾ with bucket cylinder + SLCV, HP, MP, QC lines

²⁾ with HP, MP, QC lines

³⁾ with BLCV, System 17 and MP circuit

Dimensions

All dimensions are approximate.



	mm		mm		mm
A Shipping height (with bucket)		B Shipping length		C Transport width	
Reach boom		Reach boom		600 mm shoes	2980
1900 mm stick	3100	1900 mm stick	9710	D Track length	4450
2500 mm stick	3050	2500 mm stick	9460	E Length to centers of rollers	3650
2920 mm stick	3120	2920 mm stick	9460	F Tail swing radius	2750
Mass Excavation boom		Mass Excavation boom		G Ground clearance	460
1900 mm stick	3150	1900 mm stick	9220	H Body height	2390
				J Cab height	3050
				K Body width	2750
				L Track gauge	2380
				M Counterweight clearance	1020

Track Shoes

Undercarriage with triple grouser shoes
600 mm, 800 mm, 900 mm
600 mm HD, 700 mm HD

Drive

Maximum Travel Speed	5.7 km/h
Maximum Drawbar Pull	206 kN

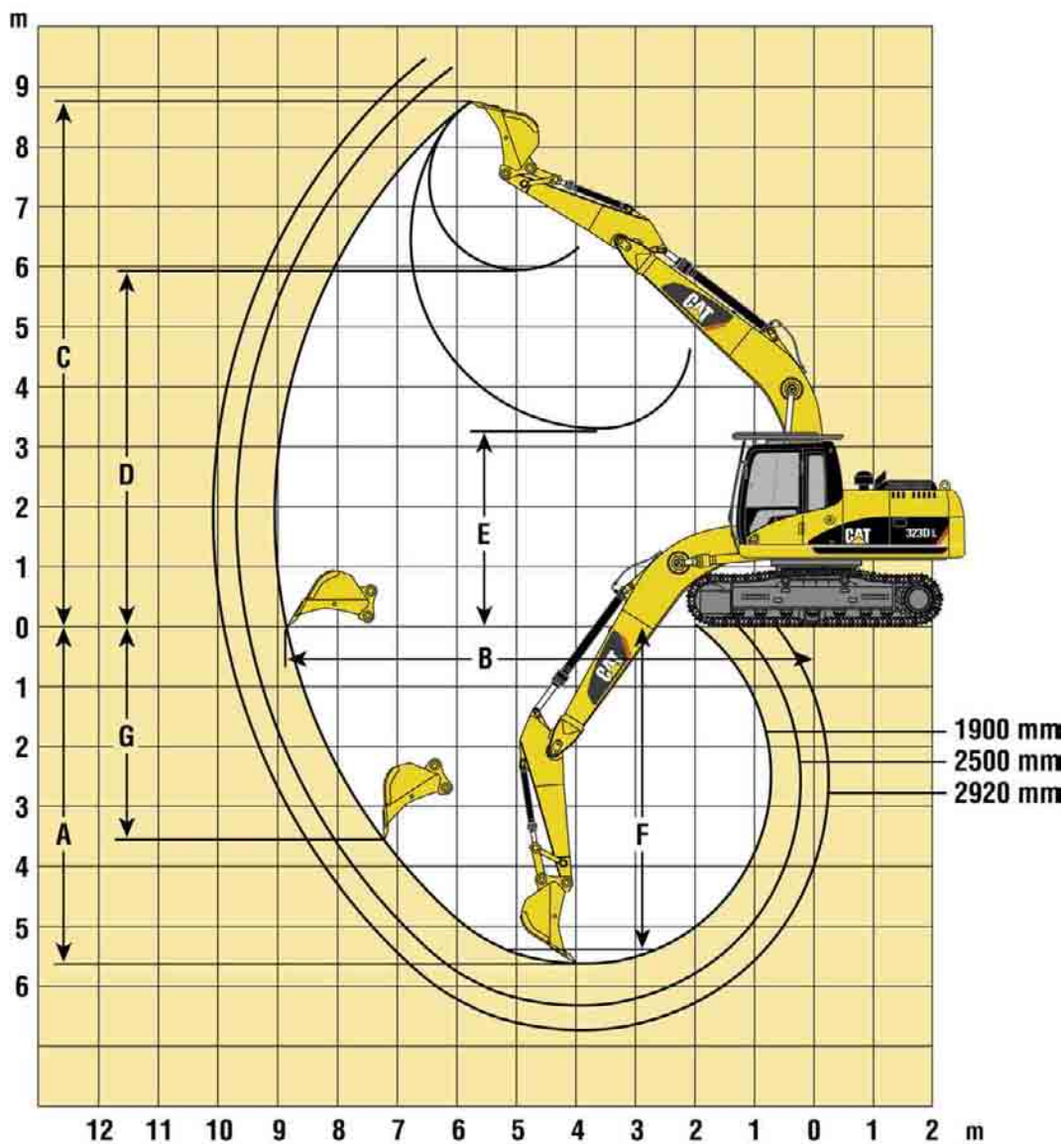
Swing Mechanism

Swing Speed	11.5 rpm
Swing Torque	62 kNm

Service Refill Capacities

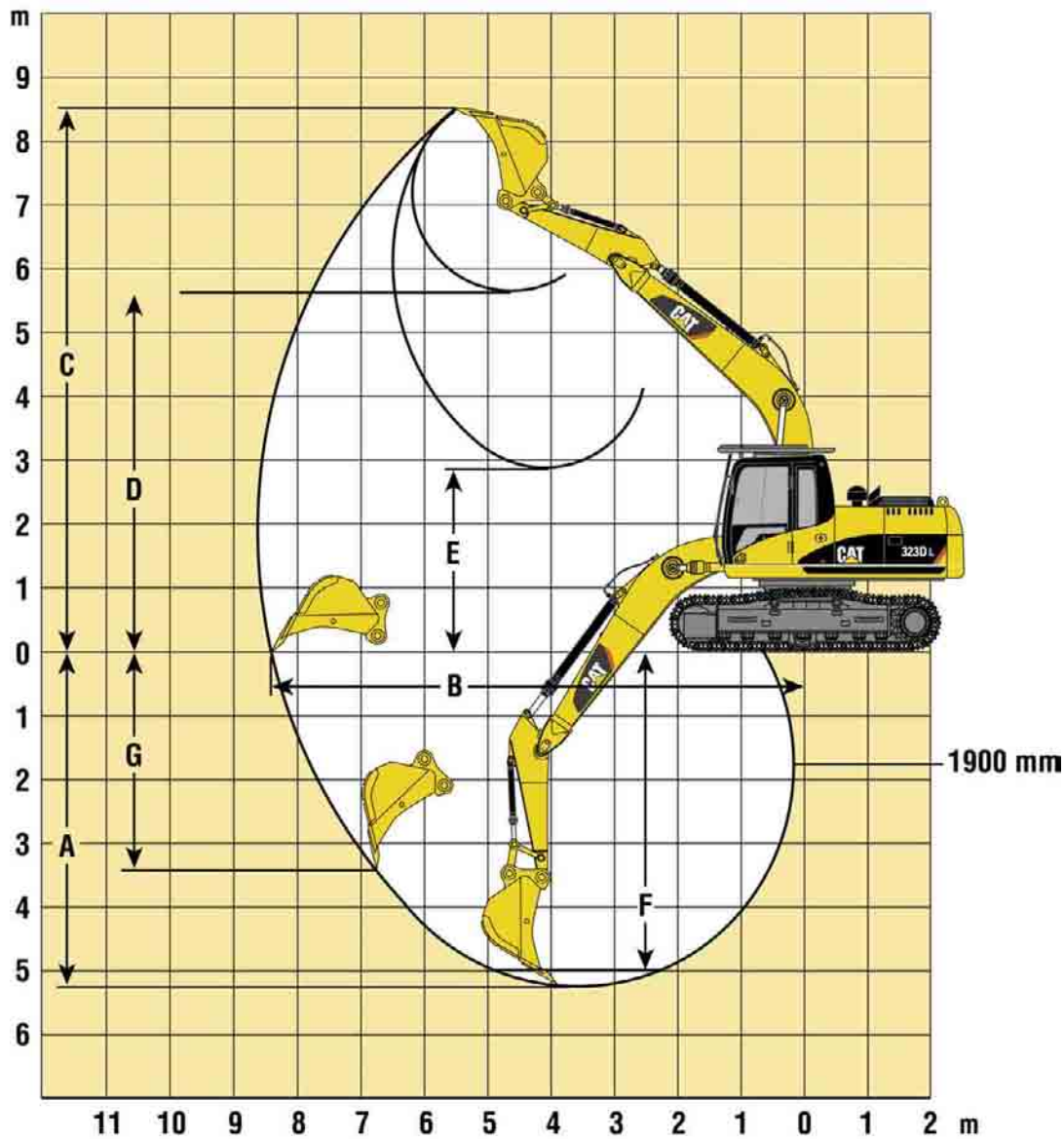
	Liters
Fuel Tank	410
Cooling System	25
Diesel Engine	30
Swing Drive (each)	8
Final Drive (each)	8
Hydraulic system (including tank)	260
Hydraulic tank	120

Working Ranges – Reach Boom (5680 mm)



Stick Type		R1.9CB	R2.5B1	R2.9B1
Stick Length	mm	1900	2500	2920
A Maximum Digging Depth	mm	5740	6270	6690
B Maximum Reach at Ground Level	mm	8930	9430	9830
C Maximum Cutting Height	mm	8960	9320	9520
D Maximum Loading Height	mm	5950	6320	6520
E Minimum Loading Height	mm	3170	2620	2200
F Maximum Digging Depth 2.5 m Level Bottom	mm	5500	6080	6520
G Maximum Vertical Wall Digging Depth	mm	4990	5760	6180
Bucket Tip Radius	mm	1610	1554	1554
Bucket Forces (ISO 6015)	kN	179	141	141
Stick Forces (ISO 6015)	kN	147	118	106

Working Range – Mass Excavation Boom (5200 mm)



Stick Type		M1.9CB2
Stick Length	mm	1900
A Maximum Digging Depth	mm	5300
B Maximum Reach at Ground Level	mm	8410
C Maximum Cutting Height	mm	8580
D Maximum Loading Height	mm	5580
E Minimum Loading Height	mm	2820
F Maximum Digging Depth 2.5 m Level Bottom	mm	5070
G Maximum Vertical Wall Digging Depth	mm	4640
Bucket Tip Radius	mm	1610
Bucket Forces (ISO 6015)	kN	179
Stick Forces (ISO 6015)	kN	147

Lift Capacities – Reach Boom (5680 mm)

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

323D L

Short Stick
1900 mm

Shoes
800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*5600	*5600	5.23
6.0 m							*5350	5150					*5400	4450	6.53
4.5 m					*6800	*6800	*5750	5000					*5400	3600	7.30
3.0 m					*8550	7300	*6500	4750	5400	3350			5200	3200	7.71
1.5 m					*10000	6800	*7200	4550	5300	3250			5000	3050	7.80
0 m					*10550	6600	7300	4400	5250	3200			5150	3150	7.60
-1.5 m			*11800	*11800	*10300	6600	7300	4350					5700	3500	7.08
-3.0 m			*12550	*12550	*9200	6750	*6650	4450					*6350	4350	6.15

323D L

Medium Stick
2500 mm

Shoes
800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m							*4150	*4150					*3900	*3900	6.06
6.0 m							*4900	*4900					*3600	*3600	7.21
4.5 m							*5400	5250	*5050	3650			*3550	3300	7.92
3.0 m					*8000	7700	*6250	5000	*5400	3550			*3600	3000	8.29
1.5 m					*9700	7150	*7100	4750	5500	3450			*3850	2900	8.38
0 m			*6100	*6100	*10650	6900	7500	4550	5400	3350			*4300	2950	8.19
-1.5 m	*6750	*6750	*10950	*10950	*10700	6800	7450	4500	5350	3300			*5150	3200	7.71
-3.0 m	*11750	*11750	*14150	13450	*9950	6850	*7350	4550					*6050	3800	6.87
-4.5 m			*11200	*11200	*8000	7100							*6150	5350	5.50

323D L

Long Stick
2920 mm

Shoes
800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*3250	*3250	6.60
6.0 m									*3700	*3700			*3000	*3000	7.67
4.5 m							*5050	*5050	*4750	3700			*2950	*2950	8.33
3.0 m			*11550	*11550	*7400	*7400	*5900	5050	*5150	3550			*3050	2800	8.69
1.5 m					*9250	7300	*6850	4800	5500	3450			*3200	2700	8.77
0 m			*6850	*6850	*10450	6950	7550	4600	5400	3350			*3550	2750	8.59
-1.5 m	*6250	*6250	*10450	*10450	*10750	6800	7400	4500	5300	3300			*4200	2950	8.14
-3.0 m	*10400	*10400	*14950	13300	*10250	6800	7450	4500					*5350	3400	7.34
-4.5 m			*12400	*12400	*8750	7000	*6100	4650					*5950	4550	6.09

323D L

Short Stick
1900 mm

Shoes
600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*5590	*5590	5.2
6.0 m							*5320	5190					*5360	4490	6.51
4.5 m					*6750	*6750	*5700	5040					*5360	3630	7.29
3.0 m					*8460	7350	*6420	4790	5470	3380			5240	3230	7.7
1.5 m					*9900	6860	*7140	4550	5360	3280			5050	3090	7.8
0 m					*10440	6660	7390	4410	5300	3220			5190	3150	7.61
-1.5 m			*11670	*11670	*10180	6660	7350	4380					5760	3490	7.09
-3.0 m			*12420	*12420	*9100	6790	*6580	4490					*6280	4330	6.17

323D L

Medium Stick
2500 mm

Shoes
600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m									*4090	*4090			*3920	*3920	6.03
6.0 m									*4880	*4880			*3620	*3620	7.19
4.5 m									*5370	5280	*5030	3660	*3550	3330	7.91
3.0 m							*7930	7750	*6180	5030	*5360	3560	*3630	3020	8.29
1.5 m							*9610	7220	*7020	4780	5530	3440	*3870	2900	8.38
0 m			*6050	*6050	*10530	6930	7590	4600	5430	3350			*4320	2950	8.2
-1.5 m	*6680	*6680	*10890	*10890	*10610	6840	7500	4520	5400	3330			*5130	3200	7.72
-3.0 m	*11690	*11690	*13820	13520	*9880	6910	*7280	4560					*5990	3800	6.89
-4.5 m			*11090	*11090	*7940	7140							*6040	5340	5.53

323D L
Long Stick
 2920 mm
Shoes
 600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
7.5 m													*3260	*3260	6.57
6.0 m									*3670	*3670			*3020	*3020	7.65
4.5 m							*4990	*4990	*4710	3700			*2970	*2970	8.32
3.0 m			*11390	*11390	*7350	*7350	*5840	5090	*5100	3590			*3040	2810	8.68
1.5 m					*9170	7330	*6760	4820	5550	3460			*3220	2700	8.77
0 m			*6820	*6820	*10330	6970	*7460	4620	5430	3350			*3570	2740	8.6
-1.5 m	*6210	*6210	*10370	*10370	*10650	6840	7490	4510	5370	3300			*4180	2940	8.15
-3.0 m	*10310	*10310	*14150	13420	*10180	6860	*7490	4520					*5330	3420	7.36
-4.5 m			*12280	*12290	*8660	7030	*6060	4670					*5850	4560	6.11

Lift Capacities – Mass Excavation Boom (5200 mm)

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

323D L
Short Stick
 1900 mm
Shoes
 800 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
6.0 m													*5950	5300	5.91
4.5 m							*6900	*6900	*6100	5050			*5950	4150	6.75
3.0 m							*8500	7550	*6700	4850			5850	3650	7.19
1.5 m							*10000	7050	*7400	4650			5600	3450	7.29
0 m							*10650	6800	7450	4500			5800	3550	7.08
-1.5 m					*14900	13250	*10400	6750	7400	4450			6600	4000	6.51
-3.0 m					*12450	*12450	*8900	6900					*6950	5250	5.48

323D L
Short Stick
 1900 mm
Shoes
 600 mm

	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
															
6.0 m													*5930	5300	5.92
4.5 m					*6870	*6870	*6040	5100					*5840	4150	6.77
3.0 m					*8440	7600	*6650	4890					5890	3650	7.21
1.5 m					*9920	7100	*7330	4670					5650	3470	7.32
0 m					*10580	6850	7530	4530					5840	3570	7.11
-1.5 m			*13730	13360	*10300	6820	7500	4500					6600	4000	6.55
-3.0 m			*12380	*12380	*8840	6970							*6780	5190	5.53



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Standard Equipment

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

Electrical

Alternator, 50 A
Heavy duty maintenance free batteries (2)
Lights
 Boom, both side
 Cab interior
 Cab mounted, two
 Frame mounted
Signal/warning horn

Engine

Automatic engine speed control
C6.4 with ACERT Technology
 Altitude capability to 2300 m
52° cooling capability
Fine swing control
Fuel filter
Secondary engine shut-off switch
Side-by-side cooling system with separately mounted AC condenser
Water separator, with level indicator, for fuel line

Guards

6 mm swivel guard on undercarriage
Heavy duty bottom guards on upper frame
Heavy duty travel motor guards on undercarriage

Operator Station

Adjustable armrests
Air conditioner, heater and defroster with automatic climate control
Ashtray and 24 volt lighter
Beverage/cup holder
Bolt-on FOGS capability
Capability to install 2 additional pedals
Coat hook
Floor mat, washable
Instrument panel and gauges with full color graphical display, start-up level checks
Laminated front windshield
Literature compartment
Mirrors – left and right
Neutral lever (lock out) for all controls
Parallel windshield wiper and washer (upper and lower)
Positive filtered ventilation, pressurized cab
Rear window, emergency exit
Retractable seat belt
Sliding upper door window
Stationary skylight (polycarbonate)
Storage compartment suitable for a lunch box
Sunshade for windshield and skylight
Travel control pedals with removable hand levers

Undercarriage

Automatic swing parking brake
Automatic travel parking brakes
Grease lubricated track
Hydraulic track adjusters
Idler and center section track guards
Long (L)
Steps – four
Step extensions for 800 mm and 900 mm shoes
Two speed travel

Other Standard Equipment

Auxiliary hydraulic valve for hydro-mechanical tools
Cat branded XT hoses and fix-type couplings
Cat Datalink and capability to use ET
Caterpillar one key security system with locks for doors, cab and fuel cap
Cross-roller type swing bearing
Counterweight with lifting eyes
Drive for auxiliary pump
Full-steel firewall between engine and hydraulic pump compartment
Heavy lift mode
Regeneration circuit for boom and stick
Side rubber bumpers
S•O•SSM quick sampling valves for engine oil, hydraulic oil and coolant
Vehicle gradability 35°
Wiring provisions for Product Link

Optional Equipment

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

Front Linkage

Bucket linkages

B1-family for B1 sticks
with lifting eye)

CB-family for CB sticks
with lifting eye)

Buckets and quick coupler
(see pg.11)

Booms (with two working lights)

Reach

– 5680 mm

Mass excavation

– 5200 mm

Sticks, heavy duty

For reach boom

– R1.9CB

– R2.5B1

– R2.9B1

For mass boom

– M1.9CB2

Tips

Shoes

Triple grouser

323D L – 600 mm, 700 mm, 800 mm,
900 mm

Heavy duty – 600 mm, 700 mm

Guards

FOGS, bolt-on

Full length for L undercarriage
(two piece)

Track end guide for L undercarriage

Operator Compartment

Joysticks

Four button joystick or single action
auxiliary control

Thumb wheel modulation joystick

Lunch box storage with lid

Machine security system with
programmable keys

Radio

AM/FM radio mounted in right hand
console with antenna and speakers

Radio ready mounting at rear location
including 24V to 12V converter

Seat

Adjustable high-back seat with
mechanical suspension

Adjustable high-back seat with
air suspension

Adjustable high-back heated seat with
air suspension

Straight travel pedal

Visor rain protection

Windshield

1-piece standard duty

1-piece high impact resistant

50-50 split, sliding

70-30 split, sliding

Auxiliary Controls and Lines

Auxiliary boom lines (high pressure
for reach and mass booms

Auxiliary stick lines (high pressure
for reach and mass booms

Basic control arrangements:

- Single action (one way high pressure circuit for hammer application)
- Tool Control
 - Combined function (one way high pressure circuit for hammer application, function for 1-way or 2-way high pressure)
- Medium pressure circuit
- Tool selection (via monitor 10 tools)

Double medium pressure circuit for
usage with rototilt

Optional cooling circuit for auxiliary
hydraulics

Universal control group for
quick coupler

Miscellaneous Options

Bio hydraulic oil package

Boom lowering control device with
SmartBoom

Cab front rain protector

Converters, 7 A/12 V

– One

– Two

Electric refueling pump with auto
shut-off

Fine filtration filter

Product link 321

Starting aid for cold weather with ether

Stick lowering control device

Travel alarm with cut off switch

323D L Hydraulic Excavator

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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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