323D2 L

CAT®

Hydraulic Excavator 2017



Engine			Weights		
Engine Model	Cat® C7.1 A	ACERT™	Minimum Operating Weight	22 000 kg	48,500 lb
Engine Power (ISO 14396)	118 kW	158 hp	Maximum Operating Weight	23 200 kg	51,100 lb
Net Power (SAF J1349/ISO 9249)	116 kW	156 hp			

323D2 L Differentiating Features

Built to Last

Caterpillar design and manufacturing techniques assure you get outstanding durability and service life in the toughest applications. The C7.1 ACERT engine's robust fuel system boasts improved reliability as it's less sensitive to low-quality fuel.

Fuel Efficient

A powerful Cat C7.1 ACERT engine meets U.S. EPA Tier 3 equivalent and EU Stage IIIA equivalent emissions standards. Combined with a new highly efficient hydraulic system, the engine delivers excellent performance with lower fuel consumption compared to its predecessor 323D L.

Easy to Operate

The cab provides you with a comfortable working environment for maximum production and efficiency. The monitor features a high resolution LCD display, with 42 languages capability.

Reduced Service and Maintenance Costs

Routine service and maintenance can be completed quickly and easily to help you reduce ownership costs. Convenient access points, extended service intervals, and advanced filtration help keep downtime to a minimum.

Complete Customer Support

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment.

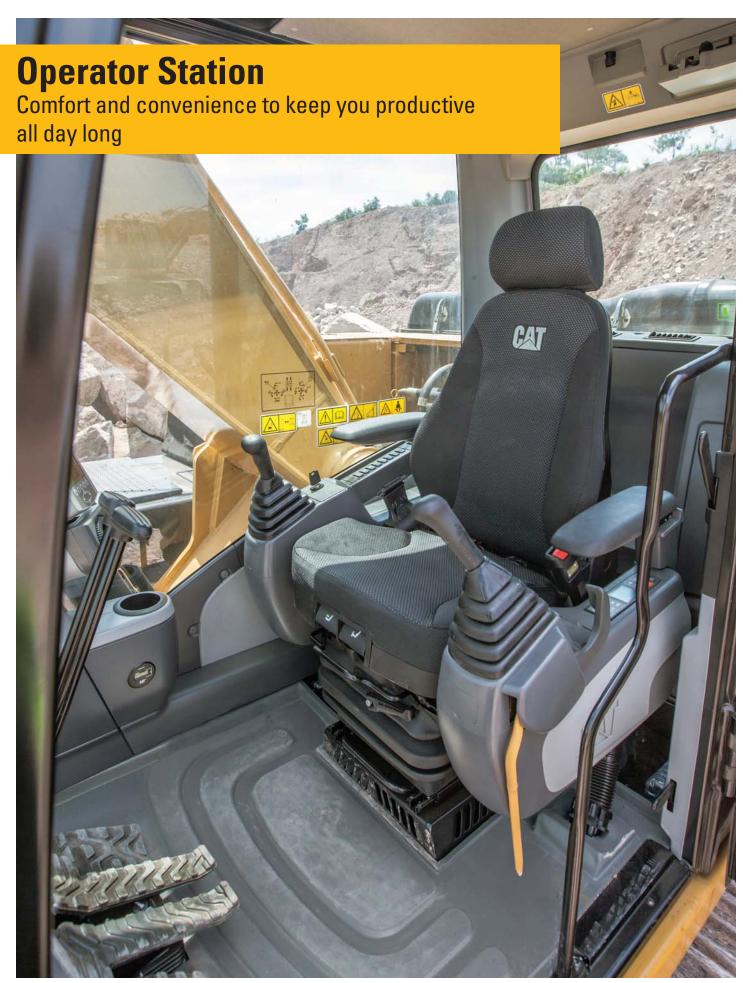
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The 323D L Series 2 incorporates innovations to improve your job site efficiency through low owning and operating costs, excellent performance, and high versatility.



ROPS Certified Operator Station

The ergonomically-designed Roll Over Protective Structure (ROPS) compliant cab offers a spacious, quiet, and comfortable environment to ensure high productivity during a long work day. All control switches are located on the right-hand and left-hand side consoles for more convenient access.

Monitor

The monitor is a full-color LCD with warning lamp and buzzer for critical engine oil pressure, coolant temperature, and oil temperature. Filters and fluid change intervals are available in the main menu. It also projects the image from the optional rearview and sideview cameras, further enhancing your job site safety and productivity.

The monitor has a high resolution display. Information language capability is 42 languages to support today's diverse workforce.

Seat

The air suspension seats provide a variety of adjustments to accommodate a wide range of operators. All seats include a reclining back, upper and lower seat slide adjustments, and height and tilt adjustments.

Controls

You can adjust the right and left joysticks for individual preferences, helping you be more comfortable, more productive, and more alert. Low-effort pilot-operated joystick controls are designed to match your natural wrist and arm position for maximum comfort and minimum fatigue.

Climate Control

The 323D2 L offers positive filtered ventilation with a pressurized cab. Fresh air or re-circulated air can be selected, which makes working in the heat and cold much more pleasant.

Cab Structure and Mounts

The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing your comfort. Thick steel tubing along the bottom perimeter of the cab improves resistance to fatigue and vibration.

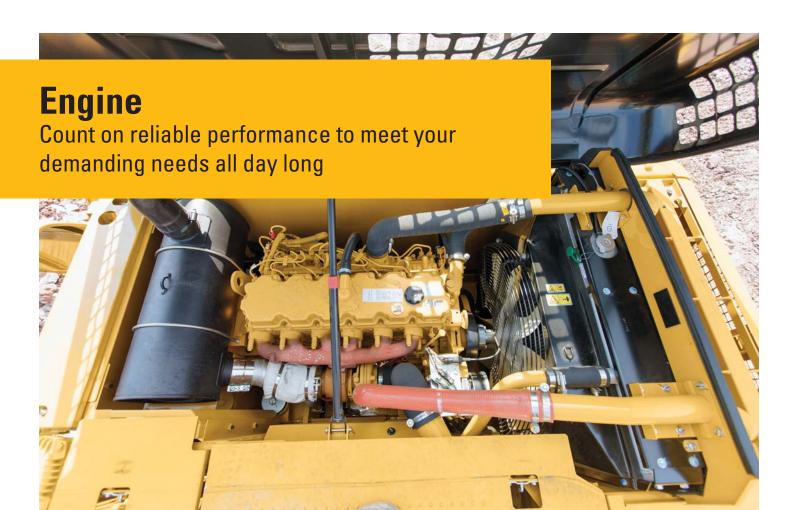
Windows

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









Reliable Cat C7.1 ACERT Engine

The Cat C7.1 ACERT engine has been designed to meet Tier 3 equivalent and Stage IIIA equivalent emissions standards. The engine incorporates proven, robust components and precision manufacturing you can count on for reliable and efficient operation. It's less sensitive to low-quality fuel, delivering better fuel consumption. An ECO mode feature helps reduce fuel consumption by up to 15 percent for fuel-conscious customers.

Isochronous Control

The Isochronous engine speed control improves fuel efficiency and reduces fuel consumption and noise levels by managing pump and engine speed.

Automatic Engine Speed Control

Automatic engine speed control is activated during no-load or light-load conditions to minimize fuel consumption.

Air Cleaner and Air Precleaner

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. An air precleaner reduces the amount of dust and debris that enter the air intake system to help maximize engine performance by extending air filter life.

Filtration System

The C7.1 ACERT engine features an improved filtration system to ensure good reliability of fuel injection system components. Intervals have been extended and the number of filters reduced to maximize your profit potential.

Variable Speed Fan

Variable speed fan controlled by ECM reduces fuel consumption and noise.

Electric Fuel Priming Pump

Electric fuel priming pump speeds up starts and fuel system maintenance.



Hydraulics

Move dirt, rock and debris with speed, precision and efficiency

Hydraulic 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. Snubbers are located at the rod-end of the boom cylinders and both ends of the stick cylinders to cushion shocks while reducing sound levels and extending component life. The hydraulic activation lever in the neutral position isolates all front linkage, swing, and travel functions for additional controllability and efficiency.

Optional auxiliary control circuits allow operation of high- and medium-pressure tools such as shears, grapples, hammers, pulverizers, multi-processors, and vibratory plate compactors.

Component Layout

The 323D2 L 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.

Boom and Stick Regeneration Circuit

Boom and stick regeneration circuits result in less pressure loss, higher controllability, reduced cycle times, more productivity, and lower operating costs for you. It works by reusing the flow of oil that travels from the head of cylinder to the rod end of cylinder during your boom-down and stick-in operations.

Hydraulic Return Capsule Filter

Capsule filter with a cartridge inside to avoid contamination when accessing the filter and enable changing cleanly without oil spillage. The capable filter with fine mesh size filtering out impurities has a sensor that indicates to the operator if the filter is clogged.



Undercarriage

The long, wide undercarriage maximizes stability and lift capacity.

The X-shaped, box-section carbody provides excellent resistance to torsional bending. Robot-welded track roller frames are pressformed pentagonal units to deliver exceptional strength and service life.

Sealed and lubricated heavy-duty track rollers, carrier rollers, and idlers provide excellent service life to keep your machine working longer.

Frame

You can expect excellent quality, reliability, and durability with the 323D2 L lower and upper frames. Both are built to handle a hard day's work over and over again.

Front Linkage

Long service life even in the harshest of conditions



Cat front linkages are designed for maximum versatility, productivity, and high efficiency whatever the application.

Heavy-Duty Front Linkage

The 5.7 m (18'8") heavy-duty (HD) reach boom is reinforced to be used in the severest applications and provide maximum digging capability. The boom is made of high-tensile-strength steel using a large box-section design with interior baffle plates and an additional bottom guard for long life and durability.

Standard and HD reach booms have two stick options available to meet all your application requirements. The 2.5 m (8'2") stick is ideally suited to applications requiring larger bucket sizes. It maximizes digging forces and enables you to get your jobs completed faster. The 2.9 m (9'6") stick is the most versatile option and a very good fit for truck loading and trenching applications where you need additional working range.

Mass Boom Front Linkage

The mass excavation (ME) front linkage is designed to maximize machine performance through superior digging forces and a larger bucket capacity.

The 5.2 m (17'1") mass excavation boom incorporates a large cross section and internal baffle plates for long life and durability.

The 2.4 m (7'11") mass stick is designed mainly for large earthmoving and is made of high-tensile-strength steel in a box section to make it strong and durable.

Attachments

Dig, hammer, rip, and cut with confidence



Each Cat work tool attachment is designed to optimize the versatility and performance of your machine. An extensive range of buckets, compactors, grapples, multi-processors, rippers, crushers, pulverizers, hammers, and shears are available for your 323D2 L. Contact your local Cat dealer for more information on the attachments available in your region.

Buckets

Cat buckets and Cat Ground Engaging Tools (GET) are designed and matched to the machine to ensure optimal performance and fuel efficiency.

1 – General Duty Buckets (GD)

These buckets are designed for digging in low-impact, moderately abrasive materials such as dirt, loam, gravel, and clay.

2 – Heavy-Duty Buckets (HD)

HD buckets are a good starting point when application conditions vary, especially when conditions include mixed dirt, clay, sand, and gravel.

3 – Severe Duty Buckets (SD)

These buckets are best suited to highly abrasive applications such as shot rock, sand stone, and granite.

4 – Extreme Duty Buckets (XD)

Built to keep you productive in the most aggressive excavation and loading applications, such as broken slag, sandstone, high quartzite granite and iron ore.

Couplers

Quick couplers allow one person to change work tools in seconds for maximum performance and flexibility on a job site. One machine can move rapidly from task to task, and a fleet of similarly equipped machines can share a common work tool inventory.

B Series Hammers

Take on demolition work with low costs per hour and still enjoy consistent, reliable power, easy maintenance, and the backing of the Cat dealer network.

E Series Hammers

E Series hammers bring together customer expectations of performance, quality, and serviceability along with Caterpillar manufacturing and logistics experience.

E Series hammers are quiet, and noise suppression is valuable in urban and restricted work areas.

Pin Grabber Coupler

Center-Lock™ is the pin grabber style coupler and features a patent-pending locking system. A highly visible secondary lock clearly shows the operator when the coupler is engaged or disengaged from the bucket or work tool.

Grapples

Cat grapples replace the bucket on Cat excavators, converting them to the ideal machine for handling loose material, sorting trash, and demolition site cleanup. An array of styles and sizes are available to match excavators to the task at hand.

Multi-Processors

Multi-processors do the work of many types of demolition tools by use of interchangeable jaw sets. Changing jaws allows a single unit to crush, pulverize, and perform a variety of specialized cutting tasks such as cutting steel rebar and tanks.

Shear

Cat shears are designed for Cat machines, taking full advantage of the hydraulic flows and pressures to enhance productivity without compromising safety or causing premature wear of the shear and carrier.

Pulverizer

The excavator mounted mechanical pulverizer is a cost-effective tool for recycling demolished concrete debris. The bucket cylinder on the excavator powers the mechanical pulverizer. This eliminates the need for a dedicated cylinder and associated hydraulics and additional installation cost.

Vibratory Plate Compactor

Compactors enhance the versatility of your excavator and make compacting faster, more efficient, and cost-effective. Cat compactors are the superior choice for any job site's compaction tasks.

Crusher

The hydraulic concrete crusher has taken modern demolition technology a step further. It is well suited for concrete demolition in residential areas. The hydraulic concrete crusher combines several concrete demolition operations in one piece of equipment:

- breaking out concrete from fixed structures
- pulverizing concrete
- cutting reinforcement rods and small steel profiles









Cat Connect Technologies

Monitor, manage, and enhance your job site operations





Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technologyequipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offers improvements in these key areas:



Equipment Management – increase uptime and reduce operating costs.



Productivity – monitor production and manage job site efficiency.



Safety - enhance job site awareness to keep your people and equipment safe.

LINK Technologies

LINK technologies like Product Link™ wirelessly connect you to your equipment, giving you valuable insight into how your machine or fleet is performing. Track location, hours, fuel usage, idle time, and event codes through the online VisionLink® interface so you can make timely, fact-based decisions that can boost job site efficiency and productivity, and lower operating costs.

DETECT Technologies

DETECT technologies like the rear-vision camera enhance operator awareness by expanding your view of the environment around working equipment. Work with greater confidence and at peak potential while keeping people and assets safe.







Serviceability

Safe, fast, and easy access

Ground-Level Service

The design and layout of the 323D2 L was made with the service technician in mind. Most service locations are easily accessible at ground level to allow service and maintenance to get completed quickly and efficiently.

Air Filter Compartment

The air filter features a double-element construction for superior cleaning efficiency. When the air filter plugs, a warning is displayed on the cab monitor. Maintenance-free batteries are standard along with a battery disconnect switch.

Pump Compartment

A service door on the right side of the upper structure allows ground-level access to the hydraulic pumps, hydraulic filters, engine oil filter, and fuel filters.

Radiator Compartment

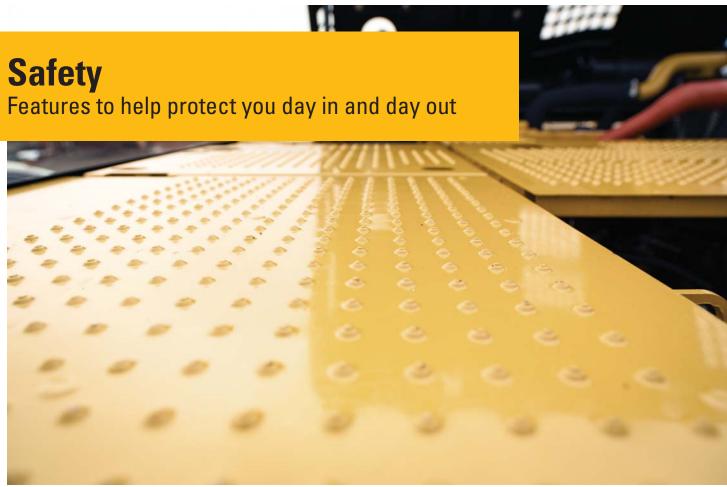
The left rear service door allows easy access to the engine radiator, hydraulic oil cooler, air-to-air aftercooler, and AC condenser. A reserve tank and drain cock are attached to the radiator for ground-level maintenance.

Greasing Points

A concentrated remote greasing block on the boom allows the greasing of hard-to-reach locations on the boom and stick.

Diagnostics and Monitoring

The 323D2 L is equipped with Scheduled Oil Sampling (S·O·SSM) ports for the hydraulic system, engine oil, and coolant. Standard hydraulic test ports enable a service technician to quickly and easily fault find in the event of service issue.



Anti-skid plating with countersunk bolts reduces the potential for slippage and trip hazards, providing a **safe platform** for all routine service and maintenance needs.

The standard **hydraulic lockout lever** isolates all hydraulic and travel functions in the lowered position. It is specifically designed to not allow the operator to leave the cab without first lowering it.

Three circuit breakers protect critical electrical components to increase machine uptime.

A **battery disconnect switch** helps to deter theft by isolating the battery and enhances safety when servicing the machine.

A full length **firewall** separates the engine from the hydraulic pump and offers protection in the event of an incident.

Ground level **shut-off switch** stops all fuel to the engine when activated and shuts down the machine.

Fan Guard – The engine radiator fan is enclosed by a steel guard that provides maximum protection when carrying out routine service and maintenance.









Product Support

You can maximize your machine's uptime with the Cat worldwide dealer network. You can also decrease your repair costs by utilizing Cat remanufactured components while contributing to sustainable development.

Machine Selection

What are the job requirements and machine attachments? What production do you need? Your Cat dealer can provide recommendations to help you make the right machine configuration.

Purchase

You can ensure lower owning and operating costs by utilizing unique Cat dealer services and financing options.

Customer Support Agreements

Cat dealers offer a variety of customer support agreements and work with you to develop a plan to meet your specific needs. These plans can cover the entire machine, including attachments, to help protect your investment.

Operation

You can boost your profits by improving your operators' techniques. Your Cat dealer has videos, literature, and other ideas to help increase productivity. Caterpillar also offers simulators and certified operator training to help maximize the return on your investment.

Replacement

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

Engine		
Engine Model	Cat C7.1 A	ACERT
Engine Power – ISO 14396	118 kW	158 hp
Net Power – SAE J1349/ISO 9249	116 kW	156 hp
Engine rpm		
Operation	1,700 rpm	
Travel	1,800 rpm	
Bore	105 mm	4.13 in
Stroke	135 mm	5.31 in
Displacement	7.01 L	428 in ³

- The Cat C7.1 ACERT meets Tier 3 and Stage IIIA equivalent emission standards.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- The field-proven C7.1 ACERT engine can work efficiently at altitudes up to 5000 m (16,405 ft).
- Power rating at 1,800 rpm.

Weights		
Minimum Operating Weight*	22 000 kg	48,500 lb
Maximum Operating Weight**	23 200 kg	51,100 lb

- *R5.7 (18'8") STD boom, R2.9 (9'6") STD stick, 600 mm (24") triple grouser shoes, 1.19 m³ (1.56 yd³) bucket.
- **R5.7 (18'8") HD boom, R2.9 (9'6") HD stick, 700 mm (28") double grouser shoes, 1.19 m³ (1.56 yd³) bucket.

Swing Mechanism		
Swing Speed	10.5 rpm	
Maximum Swing Torque	74 kN·m	54,440 lbf-ft
Drive		
Maximum Gradeability	35°/70%	
Maximum Travel Speed	5.6 km/h	3.5 mph
Drawbar Pull	205 kN	46,086 lbf
Service Refill Capacities		
Fuel Tank Capacity	410 L	108 gal
Cooling System	25 L	6.6 gal
Engine Oil	22 L	4.8 gal
Swing Drive	8 L	2.1 gal
Final Drive (each)	10 L	2.6 gal
Hydraulic System (including tank)	260 L	68.7 gal
Hydraulic Tank	120 L	31.7 gal

Hydraulic System		
Main System – Maximum Flow	214×2	56.5×2
at Travel	L/min	gal/min
Main System – Maximum Flow	202×2	53.4×2
at Operation	L/min	gal/min
Swing System – Maximum Flow	202	53.4
	L/min	gal/min
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	25 000 kPa	3,626 psi
Dil. + C+ Mi El	22.1 T /	C 1 1/:
Pilot System – Maximum Flow	23.1 L/min	6.1 gal/min
Pilot System – Maximum Pressure	3920 kPa	569 psi
Pilot System – Maximum Pressure	3920 kPa	569 psi
Pilot System – Maximum Pressure Boom Cylinder – Bore	3920 kPa 120 mm	569 psi 4.7 in
Pilot System – Maximum Pressure Boom Cylinder – Bore Boom Cylinder – Stroke	3920 kPa 120 mm 1260 mm	569 psi 4.7 in 49.6 in
Pilot System – Maximum Pressure Boom Cylinder – Bore Boom Cylinder – Stroke Stick Cylinder – Bore	3920 kPa 120 mm 1260 mm 140 mm	569 psi 4.7 in 49.6 in 5.5 in
Pilot System – Maximum Pressure Boom Cylinder – Bore Boom Cylinder – Stroke Stick Cylinder – Bore Stick Cylinder – Stroke	3920 kPa 120 mm 1260 mm 140 mm 1504 mm	569 psi 4.7 in 49.6 in 5.5 in 59.2 in
Pilot System – Maximum Pressure Boom Cylinder – Bore Boom Cylinder – Stroke Stick Cylinder – Bore Stick Cylinder – Stroke B1 Bucket Cylinder – Bore	3920 kPa 120 mm 1260 mm 140 mm 1504 mm	569 psi 4.7 in 49.6 in 5.5 in 59.2 in 4.7 in

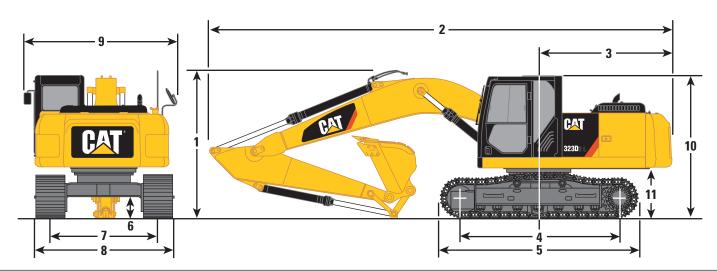
Sound Performance	
Operator Sound (ISO 6396)	71 dB(A)
Spectator Sound (ISO 6395)	103 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ISO 6396, meets requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/ windows open) for extended periods or in noisy environment.

Standards	
Brakes	ISO 10265:2008
Cab/FOGS	SAE J1356:MAR2013/
	ISO 10262:1998

Dimensions

All dimensions are approximate.



	Turkey/Pacific	South America	South America
	HD and Re 5.7 m (Mass Boom 5.2 m (17'1")
	HD R2.9B1 (9'6")***	HD R2.5B1 (8'2")	M2.4CB2 (7'10")
1 Overall Height*	3030 mm (9'11")	3050 mm (10'0")	3280 mm (10'9")
2 Overall Length	9460 mm (31'0")	9460 mm (31'0")	9050 mm (29'8")
3 Tail Swing Radius	2750 mm (9'0")	2750 mm (9'0")	2750 mm (9'0")
4 Length to Center of Rollers	3650 mm (12'0")	3650 mm (12'0")	3650 mm (12'0")
5 Track Length	4455 mm (14'7")	4455 mm (14'7")	4455 mm (14'7")
6 Ground Clearance**	450 mm (1'6")	450 mm (1'6")	450 mm (1'6")
7 Track Gauge	2380 mm (7'10")	2380 mm (7'10")	2380 mm (7'10")
8 Transport Width			
600 mm (24") Shoes	2980 mm (9'9")	2980 mm (9'9")	2980 mm (9'9")
700 mm (28") Shoes	3080 mm (10'1")	3080 mm (10'1")	3080 mm (10'1")
9 Width of Upper Structure	2740 mm (9'0")	2740 mm (9'0")	2740 mm (9'0")
10 Cab Height*	2950 mm (9'8")	2950 mm (9'8")	2950 mm (9'8")
11 Counterweight Clearance**	1020 mm (3'4")	1020 mm (3'4")	1020 mm (3'4")
Bucket Type	HD	HD	HD
Tip Radius	1570 mm (5'2")	1570 mm (5'2")	1650 mm (5'5")

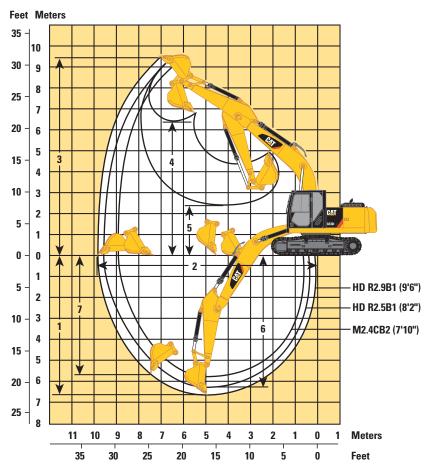
^{*}Including shoe lug height.

^{**}Without shoe lug height.

^{***}Standard Reach Boom and STD R2.9 stick (HK only).

Working Ranges

All dimensions are approximate.



		HD and Re 5.7 m (Mass Boom 5.2 m (17'1")
		HD R2.9B1 (9'6")*	HD R2.5B1 (8'2")	M2.4CB2 (7'10")
1 Maximum	Digging Depth	6720 mm (22'1")	6300 mm (20'8")	5850 mm (19'2")
2 Maximum l	Reach at Ground Level	9860 mm (32'4")	9630 mm (31'7")	8920 mm (29'3")
3 Maximum	Cutting Height	9490 mm (31'0")	9290 mm (30'6")	8830 mm (27'6")
4 Maximum	Loading Height	6490 mm (21'4")	6290 mm (20'8")	5760 mm (18'11")
5 Minimum I	Loading Height	2170 mm (7'1")	2590 mm (8'6")	2270 mm (7'5")
6 Maximum	Depth Cut for 2440 mm (8'0") Level Bottom	6380 mm (20'11")	5960 mm (19'7")	5500 mm (18'1")
7 Maximum V	Vertical Wall Digging Depth	5690 mm (18'8")	5650 mm (18'6")	4580 mm (15'0")
Bucket	Туре	HD	HD	HD
	Tip Radius	1570 mm (5'2")	1570 mm (5'2")	1650 mm (5'5")

^{*}Standard Reach Boom and STD R2.9 stick.

Operating Weight* and Ground Pressure

The standard and optional equipment availability vary by region. Please contact your local Cat dealer for more information about the work tools available in your region.

		Ope:	rating Weight		
	Bucket Capacity	600 mm (24") HD Triple Grouser Shoes	600 mm (24") Triple Grouser Shoes	600 mm (24") Double Grouser Shoes	700 mm (28") Double Grouser Shoes
Reach Boom - STI	O – 5.7 m (18'8")				
R2.9	1.19 m ³	22 500 kg	22 000 kg	22 400 kg	22 700 kg
(9'6")	(1.56 yd^3)	(49,600 lb)	(48,500 lb)	(49,400 lb)	(50,000 lb)
$Reach\ Boom-HD$	- 5.7 m (18'8")				
R2.9 HD	1.19 m ³	23 000 kg	22 500 kg	22 900 kg	23 200 kg
(9'6")	(1.56 yd^3)	(50,700 lb)	(49,600 lb)	(50,500 lb)	(51,100 lb)
R2.5 HD	1.19 m^3	22 900 kg	22 400 kg	22 800 kg	23 100 kg
(8'2")	(1.56 yd^3)	(50,500 lb)	(49,400 lb)	(50,300 lb)	(50,900 lb)
Mass Boom – 5.2 m	n (17'1")				
M2.4CB2	1.76 m ³	22 800 kg	22 300 kg	22 700 kg	23 000 kg
(7'10")	(2.30 yd^3)	(50,300 lb)	(49,200 lb)	(50,000 lb)	(50,700 lb)
		Gro	und Pressure		
	Bucket Capacity	600 mm (24") HD Triple Grouser Shoes	600 mm (24") Triple Grouser Shoes	600 mm (24") Double Grouser Shoes	700 mm (28") Double Grouser Shoes
Reach Boom - STI	O – 5.7 m (18'8")	-	-		
R2.9	1.19 m ³	46.8 kPa	45.8 kPa	46.6 kPa	40.5 kPa
(9'6")	(1.56 yd^3)	(6.8 psi)	(6.6 psi)	(6.8 psi)	(5.9 psi)
Reach Boom - HD	- 5.7 m (18'8")				
R2.9 HD	1.19 m ³	47.8 kPa	46.8 kPa	47.6 kPa	41.4 kPa
(9'6")	(1.56 yd^3)	(6.9 psi)	(6.8 psi)	(6.9 psi)	(6.0 psi)
R2.5 HD	1.19 m ³	47.6 kPa	46.6 kPa	47.4 kPa	41.2 kPa
(8'2")	(1.56 yd^3)	(6.9 psi)	(6.8 psi)	(6.9 psi)	(6.0 psi)
Mass Boom – 5.2 m	n (17'1")				
M2.4CB2	1.76 m ³	47.4 kPa	46.4 kPa	47.2 kPa	41.0 kPa
(7'10")	(2.30 yd^3)	(6.9 psi)	(6.7 psi)	(6.8 psi)	(5.9 psi)

^{*}Based on ISO 6016. Operating weight includes Base machines with fronts, bucket, full fuel tank and fluids, and 75 kg (165 lb) operator, excluding optional attachments.

Major Component Weights

Base Machine (with counterweight 4.26 mt/9,390 lb, with boom cylinders, without front linkage, vithout tracks)	15 570 kg (34,330 lb)
Counterweight	4260 kg (9,390 lb)
Upper Frame	6480 kg (14,290 lb)
Undercarriage	4490 kg (9,900 lb)
Full Fuel	340 kg (750 lb)
Boom (includes lines, pins, and stick cylinder)	
Heavy-Duty Reach Boom – 5.7 m (18'8")	2010 kg (4,430 lb)
Reach Boom – 5.7 m (18'8")	1650 kg (3,640 lb)
Mass Boom – 5.2 m (17'1")	1680 kg (3,700 lb)
tick (includes lines, pins, linkage and bucket cylinder)	
R2.9 HD (9'6")	1120 kg (2,470 lb)
R2.5 HD (8'2")	1050 kg (2,310 lb)
R2.9 (9'6")	990 kg (2,180 lb)
M2.4CB2 (7'10")	1060 kg (2,340 lb)
ong Tracks Shoes	
600 mm (24") Triple Grouser	2700 kg (5,950 lb)
600 mm (24") Double Grouser	3080 kg (6,790 lb)
700 mm (28") Double Grouser	3400 kg (7,500 lb)
Buckets	
1200 mm (47")/1.19 m³ (1.56 yd³) HD	1030 kg (2,270 lb)
1350 mm (53")/1.40 m ³ (1.83 yd ³) HD	1060 kg (2,340 lb)
1350 mm (53")/1.38 m ³ (1.80 yd ³) HD	1090 kg (2,400 lb)

Bucket and Stick Forces

	Reach 5.7 m	Mass Boom 5.2 m (17'1")		
	HD R2.9B1 (9'6")*	HD R2.5B1 (8'2")	M2.4CB2 (7'10") 1.76 m³ (2.30 yd³)	
Bucket	1.19 m ³ (1.56 yd ³)	1.19 m ³ (1.56 yd ³)		
Bucket Digging Force (ISO)	140 kN (31,472 lbf)	140 kN (31,506 lbf)	179 kN (40,293 lbf)	
Stick Digging Force (ISO)	107 kN (24,054 lbf)	118 kN (26,549 lbf)	128 kN (28,817 lbf)	
Bucket Digging Force (SAE)	125 kN (28,100 lbf)	125 kN (28,024 lbf)	158 kN (35,575 lbf)	
Stick Digging Force (SAE)	104 kN (23,379 lbf)	114 kN (25,717 lbf)	124 kN (27,810 lbf)	

^{*}Standard Reach Boom and STD R2.9 stick.

323D2 L Bucket Specifications and Compatibility

											Boom		Mass	Boom	
											R5.7		1	5.2	
										(18	(17'1")				
		Width		Capacity		Weight		Fill		HD R2.5B1 (8'2")		HD R2.9B1 (9'6")		M2.4CB2 (7'10")	
	Linkage	mm	in	m³	yd³	kg	lb	%	600 mm (24") Tracks	700 mm (28") Tracks	600 mm (24") Tracks	700 mm (28") Tracks	600 mm (24") Tracks	700 mm (28" Tracks	
Without Quick Couple	r														
General Duty (GDC)	В	600	24	0.55	0.72	619	1,363	100	•	•	•	•			
	В	750	30	0.75	0.98	710	1,566	100	•	•	•	•			
	В	900	36	0.95	1.24	787	1,735	100	•	•	•	•			
	В	1050	42	1.16	1.52	848	1,870	100	•	•	Θ	Θ			
	В	1200	48	1.38	1.80	926	2,041	100	Θ	Θ	0	0			
	В	1350	54	1.59	2.08	1004	2,213	100	0	0	\Diamond	\Diamond			
General Duty – CCL	В	1150	46	0.90	1.18	719	1,585	100	•	•	•	•			
	В	1250	50	1.00	1.31	751	1,656	100	•	•	•	•			
	В	1150	46	0.90	1.18	762	1,680	100	•	•	•	•			
	В	1250	50	1.00	1.31	797	1,756	100	•	•	•	•			
	В	1400	56	1.14	1.49	863	1,902	100	•	•	Θ	•			
Heavy Duty (HD)	В	600	24	0.46	0.61	649	1,431	100	•	•	•	•			
	В	750	30	0.64	0.84	748	1,649	100	•	•	•	•			
	В	900	36	0.81	1.06	826	1,821	100	•	•	•	•			
	В	1050	42	1.00	1.31	880	1,940	100	•	•	•	•			
	В	1200	48	1.19	1.56	907	1,999	100	•	•	Θ	θ			
	В	1200	48	1.19	1.56	918	2,024	100	•	•	Θ	θ			
	В	1200	48	1.19	1.56	972	2,141	100	Θ	•	Θ	Θ			
	В	1300	52	1.30	1.71	962	2,120	100	Θ	Θ	0	0			
	В	1350	54	1.38	1.81	1054	2,322	100	0	Θ	0	0			
	В	1350	54	1.40	1.83	1012	2,230	100	0	Θ	Ō	0			
	СВ	1350	54	1.54	2.02	1134	2,500	100					θ	Θ	
Severe Duty (SD)	В	600	24	0.46	0.61	694	1,530	90	•	•	•	•			
	В	750	30	0.64	0.84	802	1,768	90	•	•	•	•			
	В	900	36	0.81	1.06	889	1,959	90	•	•	•	•			
	В	1050	42	1.00	1.31	964	2,125	90	•	•	•	•			
	В	1200	48	1.19	1.56	1053	2,320	90	•	•	θ	θ			
	В	1200	48	1.19	1.56	1001	2,207	90	•	•	Ð	Ð			
	СВ	1350	54	1.56	2.04	1249	2,753	90					θ	Θ	
		N	/laximun	n load pi	n-on (pa	yload + I	bucket)	kg	2990	3050	2755	2815	3515	3585	
								lb	6,590	6,722	6,072	6,204	7,747	7,901	

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- O 1200 kg/m³ (2,000 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- 900 kg/m³ (1,500 lb/yd³)

323D2 L Bucket Specifications and Compatibility

											Boom			Boom
										HD	R5.7 '8")		1	5.2 ''1")
									HD B	2.5B1		2.9B1	· ·	1 / 1CB2
		Wie	Width		acity	We	ight	Fill		2")		'6")		4062 10")
	Linkage	mm	in	m³	yd³	kg	lb	%	600 mm (24") Tracks	700 mm (28") Tracks	600 mm (24") Tracks	700 mm (28") Tracks	600 mm (24") Tracks	700 mm (28") Tracks
With Pin Grabber Cou	pler													
General Duty (GDC)	В	600	24	0.55	0.72	619	1,363	100			•			
	В	750	30	0.75	0.98	710	1,566	100	•	•	•	•		
	В	900	36	0.95	1.24	787	1,735	100	•	•	\ominus	Θ		
	В	1050	42	1.16	1.52	848	1,870	100	Θ	Θ	0	0		
	В	1200	48	1.38	1.80	926	2,041	100	0	0	\Diamond	\Diamond		
	В	1350	54	1.59	2.08	1004	2,213	100	\Diamond	\Diamond	X	\Diamond		
Heavy Duty (HD)	В	600	24	0.46	0.61	649	1,431	100		•				
	В	750	30	0.64	0.84	748	1,649	100		•	•			
	В	900	36	0.81	1.06	826	1,821	100			•	•		
	В	1050	42	1.00	1.31	880	1,940	100	$\mid \ominus \mid$	•	Θ	$\mid \ominus \mid$		
	В	1200	48	1.19	1.56	907	1,999	100	0	Θ	0	0		
	В	1200	48	1.19	1.56	918	2,024	100	0	Θ	0	0		
	В	1200	48	1.19	1.56	972	2,141	100	0	0	0	0		
	В	1300	52	1.30	1.71	962	2,120	100	0	0	\Diamond	\Diamond		
	В	1350	54	1.38	1.81	1054	2,322	100	\Diamond	0	\Diamond	\Diamond		
	В	1350	54	1.40	1.83	1012	2,230	100	\Diamond	0	\Diamond	\Diamond		
Severe Duty (SD)	В	600	24	0.46	0.61	694	1,530	90	•	•				
	В	750	30	0.64	0.84	802	1,768	90	•	•		•		
	В	900	36	0.81	1.06	889	1,959	90	•	•	•	•		
	В	1050	42	1.00	1.31	964	2,125	90	•	•	Θ	Θ		
	В	1200	48	1.19	1.56	1053	2,320	90	0	Θ	0	0		
	В	1200	48	1.19	1.56	1001	2,207	90	Θ	Θ	0	0		
	CB	1350	54	1.56	2.04	1249	2,753	90					0	0
		Maximu	um load	with cou	ıpler (pa	yload + I	oucket)	kg	2580	2640	2345	2405	3105	3175
With Quick Coupler (0	*\A/AO C\A/A	0a\						lb	5,687	5,819	5,169	5,301	6,844	6,998
General Duty (GD)	В	600	24	0.46	0.61	503	1,109	100						
General Duty (GD)	В	750	30	0.40	0.84	588	1,109	100						
	В	900	36	0.64	1.06	655	1,444	100						
	В	1200	48	1.19	1.56	770	1,697	100	Θ	$\overline{\Theta}$	$\overline{\Theta}$	$\overline{\Theta}$		
	В	1300	51	1.19	1.71	801	1,765	100	0	0	0	0		
	В	1400	55	1.43	1.87	837	1,845	100	0	0	0	0		
Heavy Duty (HD)	В	600	24	0.46	0.61	584	1,288	100						
Heavy Duty (HD)	В	1200	48	1.19	1.56	874	1,927	100	$\overline{\Theta}$			0		
	В	1300	52	1.19	1.71	929	2,048	100	0	0	0	0		
	Ь			with cou				kg	2738	2798	2503	2563	3263	3333
		ividXIIIII	uiii 10 a 0	vvilii GUU	ihiei (hg	yıvaü + I	Juckel)	ку Ib	6,035	6,167	5,517	5,649	7,192	7,346
With Quick Coupler (0	CW45)							_ 10	0,000	0,107	0,017	J,070	1,102	1,040
Severe Duty (SD)	CB	1350	54	1.56	2.04	1250	2,755	90					0	0
		Maximi	um load	with cou	ıpler (pa			kg	2526	2586	2291	2351	3051	3121
								lb	5,567	5,700	5,049	5,182	6,724	6,879

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³) 1200 kg/m³ (2,000 lb/yd³)
- - 1500 kg/m³ (2,500 lb/yd³) $\hspace{1.5cm} X \hspace{1.5cm} \text{Not recommended}$

323D2 L Work Tool Offering Guide*

Boom Type	Reach and	Reach and HD Reach							
Stick Size	R2.9 HD	R2.5 HD	M2.4						
Hydraulic Hammer	H120Es H130Es	H120Es H130Es	H120Es H130Es H140Es^^						
	B20	B20	B20						
Multi-Processor	MP318 CC Jaw** MP318 D Jaw** MP318 P Jaw** MP318 U Jaw** MP318 S Jaw**	MP318 CC Jaw MP318 D Jaw MP318 P Jaw MP318 U Jaw MP318 S Jaw	MP318 CC Jaw MP318 D Jaw MP318 P Jaw MP318 U Jaw MP318 S Jaw MP324 CC Jaw^ MP324 D Jaw^ MP324 P Jaw^ MP324 U Jaw^ MP324 U Jaw^ MP324 S Jaw** MP324 TS Jaw^						
Crusher	P315**	P315	P315 P325**						
Pulverizer	P215	P215	P215 P225**						
Demolition and Sorting Grapple	G315B D/R**	G315B D/R G320B D/R***#	G320B D/R**						
Scrap and Demolition Shear	S320B*** S325B##	S320B S325B##	S320B S325B## S340B## #						
Compactor (Vibratory Plate)	CVP110	CVP110	CVP110						
Contractors' Grapple	G120B – G130B	G120B - G130B	G120B - G130B						
Trash Grapple									
Thumbs									
Orange Peel Grapples									
Rakes	These work tools are available	e for the 323D2 L. Consult your	Cat dealer for proper match						
Pin Grabber Coupler Cat-	-PG								
Dedicated Quick Coupler CW	-40								
CW	-40s								

^{*} Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

Note: Demolition and Sorting Grapple: D-Demolition shells, R-Recycling shells

^{**} Pin-on or CW

^{***} Pin-on only

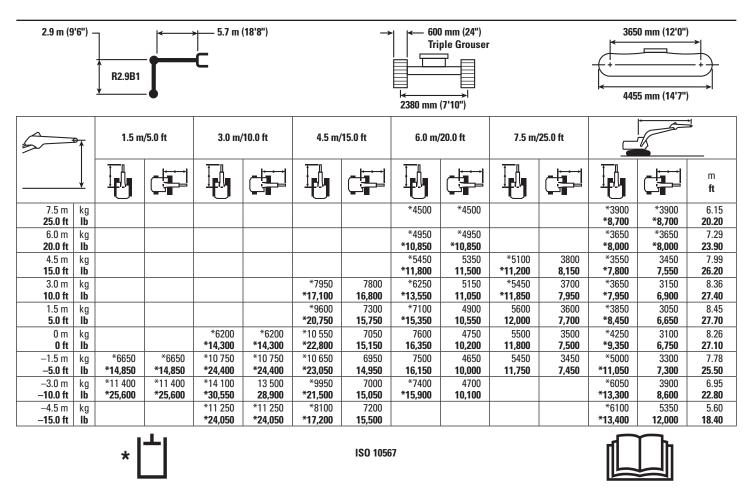
 $^{\#\,\}mbox{Work}$ over the front only

^{##} Boom mount

[^] Work over the front only with CW (pin-on and CW)

^{^^} Work over the front only with Cat-PG (pin-on, CW and Cat-PG)

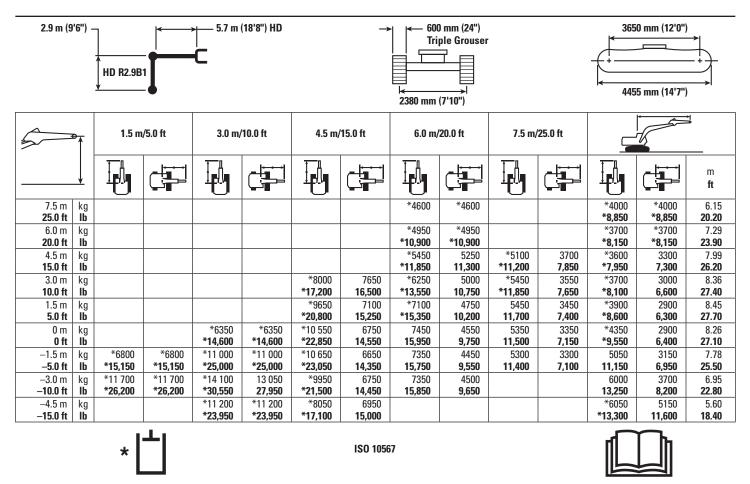
323D2 L Reach Boom Lift Capacities – Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is without bucket. Lift capacity stays with ±5% for all available track shoes.

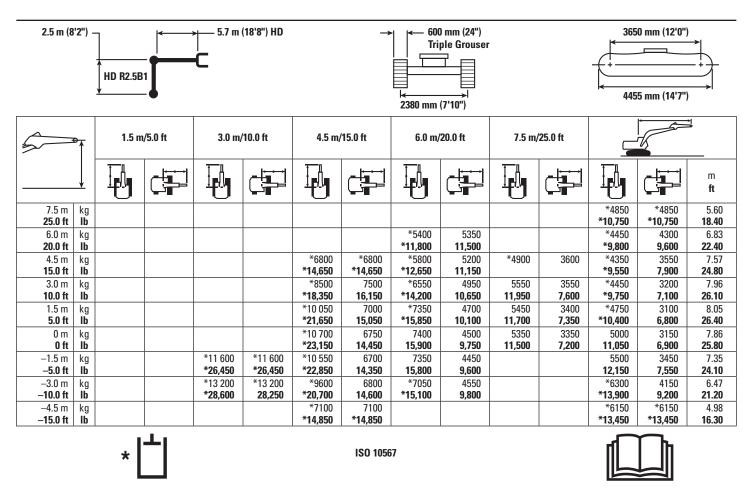
323D2 L Heavy-Duty Reach Boom Lift Capacities – Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is for "Heavy Lift" mode, without bucket. Lift capacity stays with ±5% for all available track shoes.

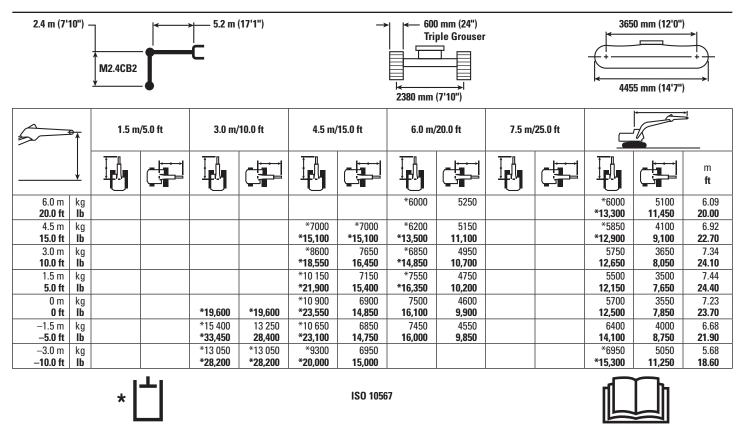
323D2 L Heavy-Duty Reach Boom Lift Capacities - Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is for "Heavy Lift" mode, without bucket. Lift capacity stays with ±5% for all available track shoes.

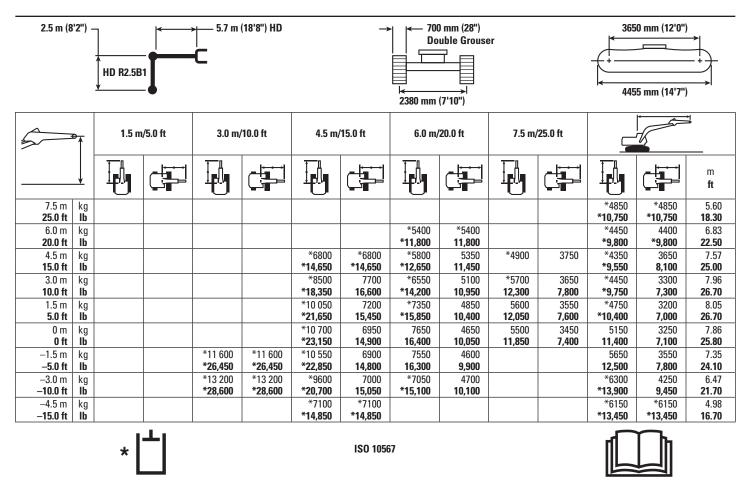
323D2 L Mass Excavation Boom Lift Capacities – Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is for "Heavy Lift" mode, without bucket. Lift capacity stays with ±5% for all available track shoes.

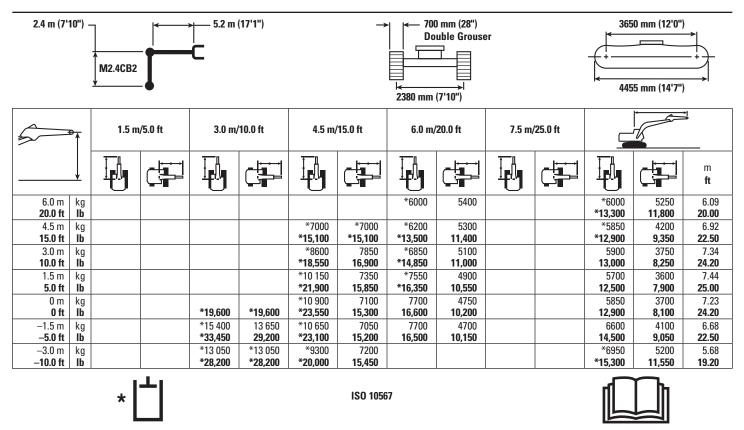
323D2 L Heavy-Duty Reach Boom Lift Capacities - Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is for "Heavy Lift" mode, without bucket. Lift capacity stays with ±5% for all available track shoes.

323D2 L Mass Excavation Boom Lift Capacities – Long Undercarriage



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity is for "Heavy Lift" mode, without bucket. Lift capacity stays with ±5% for all available track shoes.

323D2 L Standard Equipment

Standard Equipment

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

ENGINE

- C7.1 ACERT electronic control engine
- Meets Tier 3 equivalent and Stage IIIA equivalent emissions standards
- 5000 m altitude capability
- Radial seal air filters (primary and secondary filter)
- Air prefilter
- Glow plugs (for cold weather start)
- Automatic engine speed control with one touch low idle
- High ambient cooling package 52° C (125° F)
- Starting kit, cold weather, $<-18^{\circ}$ C (-0° F)
- Water separator with water level indicator sensor
- Waved fin radiator with space for cleaning
- Two speed travel
- Electric priming pump
- Power modes (Eco and High Power)
- · Biodiesel compatibility

HYDRAULIC SYSTEM

- · Regeneration circuits for boom and stick
- · Auxiliary hydraulic valve
- Reverse swing damping valve
- Automatic swing parking brake
- Boom drift reducing valve
- Boom lowering device for back-up
- Stick drift reducing valve
- High performance hydraulic return filters
- Capability of installing additional valves, pumps, circuits
- Cat Bio-oil capability B20

CAB

- Pressurized ROPS certified cab
- · Positive filtered ventilation
- Adjustable armrest
- Flexible seat belt, retractable (51 mm [2 in])
- Fully adjustable air suspension seat, with heater
- 70/30 split front windshield
- Laminated upper front windshield and tempered other windows
- Sliding upper door window
- · Openable front windshield with assist device
- Openable roof hatch
- Removable lower windshield, within cab storage bracket
- Pillar mounted upper windshield wiper and washer
- Bi-level air conditioner (automatic) with defroster (pressurized function)
- Full color and full graphic LCD display with warning, filter/fluid change, and working hour information
- · Control lever joysticks, seat integrated
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Radio mounting (DIN size)
- 12V-10A power supply with two lighter sockets
- Two stereo speakers
- · Beverage holder
- Coat hook
- Interior lighting
- · Ashtray and lighter
- Storage compartment for lunch box
- Capability to install two additional pedals
- Sun screen

UNDERCARRIAGE

- · Idler and center section track guiding guards
- Towing eye on base frame
- · Grease lubricated track GLT2, resin
- · Heavy-duty rollers
- · Center track guiding guard

ELECTRICAL

- Batteries (2 × 900 CCA)
- 115 amp alternator
- 8 kW starter motor
- Capability to connect a beacon*

LIGHTS

- Cab mounted working lights
- Working lights, boom
- · Right working light, storage box mounted
- Interior lighting

SAFETY AND SECURITY

- Cat one key security system
- Door and compartment locks
- Signaling/warning horn
- · Rearview mirrors
- · Rearview sideview camera ready
- Fire wall between engine and pump compartment
- Emergency engine shutoff switch
- Rear window, emergency exit
- · Battery disconnect switch
- Bolt-on FOGS capability
- Cap locks on fuel and hydraulic tanks
- Lockable tool box

COUNTERWEIGHT

• 4.26 mt (9,390 lb) counterweight

TECHNOLOGY

• Cat Product Link

^{*}Requires additional hardware (relay, switch, beacon, and electric harness)

323D2 L Optional Equipment

Optional Equipment

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

ENGINE

- Starting kit, cold weather, <-32° C (-25.6° F), ether or block heater with two additional batteries
- Jump start receptacle

HYDRAULIC SYSTEM

- Fine swing control
- · Boom and stick high pressure lines
- Boom and stick medium pressure lines
- Boom and stick QC lines
- · Hammer circuit, foot pedal operated
- · Quick couplers

UNDERCARRIAGE AND GUARDS

- 600 mm (24") double grouser shoes
- 600 mm (24") triple grouser shoes
- 700 mm (28") double grouser shoes
- Segmented track guiding guard (two pieces)
- Full length track guiding guard
- Guard package includes (HD) bottom, (HD) travel motor, swivel guard

REGIONAL CONFIGURATIONS

- · South America
- -Heavy Duty 5.7 m (18'8") reach boom
- -R2.5 B1 (8'2") HD stick
- Mass boom 5.2 m (17'1") with left side light
- -M2.4 DB (7'11") CB2 stick
- -600 mm (24") double grouser track shoes
- -700 mm (28") double grouser track shoes
- Turkey/Pacific
 - -Heavy Duty 5.7 m (18'8") reach boom
- -R2.9 B1 (9'6") HD stick
- -600 mm (24") triple grouser track shoes
- HK
- -5.7 m (18'8") reach boom
- -R2.9 B1 (9'6") stick
- -600 mm (24") triple grouser track shoes

FRONT LINKAGE

- Standard 5.7 m (18'8") reach boom with left side light
 - -R2.9B1 (9'6") stick
- Heavy-Duty 5.7 m (18'8") reach boom with left side light
- -R2.9B1 (9'6") HD stick
- -R2.5B1 (8'2") HD stick
- Mass boom 5.2 m (17'1") with left side light
- -M2.4CB2 (7'11") mass stick
- Bucket linkage with lifting eye
- Bucket linkage without lifting eye

LIGHTS

• Right mounted boom light for reach and mass booms

SAFETY AND SECURITY

- · Travel alarm
- Falling Object Guards (FOGS)
- Rearview and sideview cameras (Turkey and HK)

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

AEHQ7847 (ADSD-S/Turkey/HK/Pacific)

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