324D L

Hydraulic Excavator

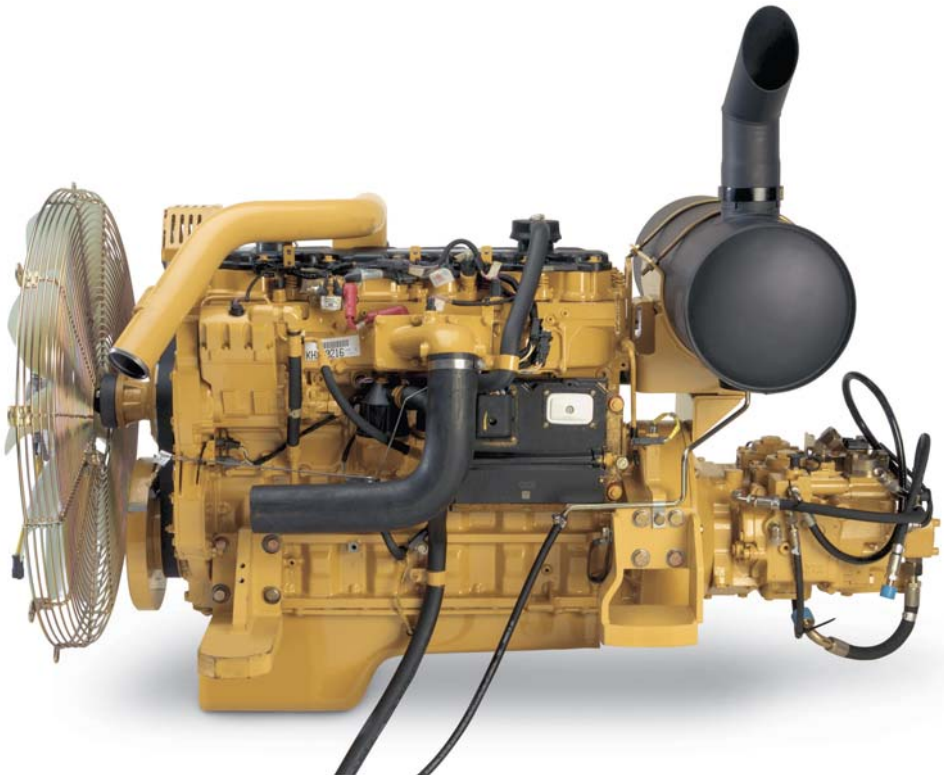
Engine	
Engine Model	Cat® C7 with ACERT™ Technology
Net Flywheel Power	140 kW (187 hp)

Weights	
Operating Weight – Long Undercarriage	25 870 kg

The hydraulic system is designed to provide reliability and outstanding controllability. The power management system allows you to balance the demands of performance and fuel economy. And the new ROPS cab provides a comfortable and secure environment for your operators.

Contents


CAT
324D L



Cat C7

By combining ACERT Technology with the new Economy Mode and Power Management, the Cat C7 engine allows customers to balance the demands of performance and fuel economy to suit their requirements and application.

The Cat C7 offers more power and runs at lower speeds for better fuel efficiency and reduced wear.

Engine

Exceptional power and fuel efficiency for consistently high performance.

Economy Mode

Available as standard, economy mode is best utilized in light duty applications and offers the best fuel economy while maintaining the breakout forces and lift capacity enjoyed while in standard power mode.

Power Management

Power Management optimizes machine performance for each type of application. The operator can change the engine power on the monitor (password protected) from standard to high. The high power mode is recommended for extremely productive and hard digging applications. The standard power mode is recommended for lighter duty applications and optimizes fuel efficiency.

Cooling System

The cooling fan is directly driven from the engine. An electrically controlled viscous clutch fan is available as an attachment to reduce fan noise.

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

Power and precise control to keep material moving quickly and efficiently.

Component Layout

The 324D 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 reduces 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.

Pilot System

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

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 which increases efficiency, reduces cycle times and pressure loss for higher productivity, lower operating costs and increased fuel efficiency.

Auxiliary Hydraulic Valve

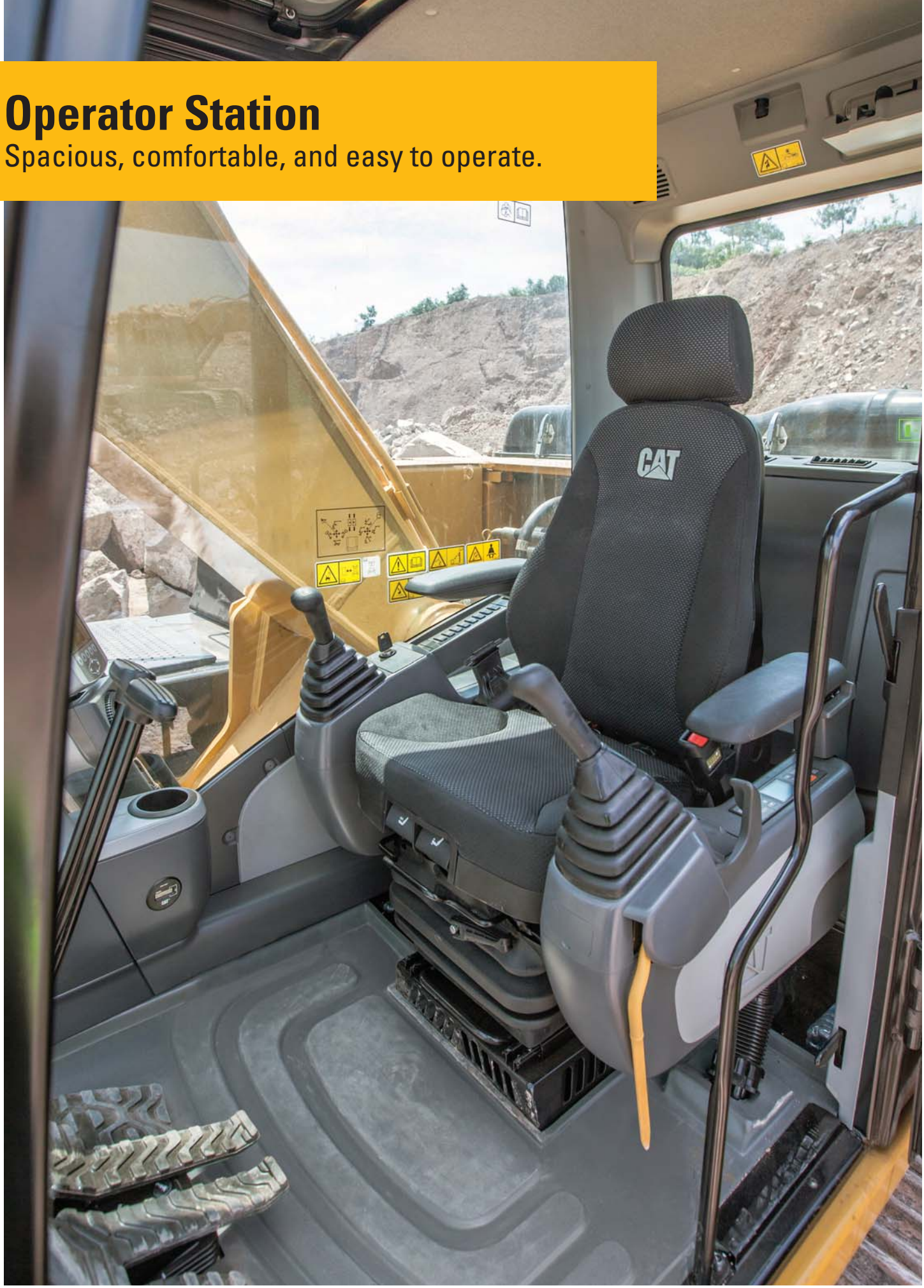
The auxiliary valve is standard on the 324D L. Control circuits are available as attachments, allowing for operation of high- and medium-pressure tools such as shears, grapples, hammers, pulverizers, multi processors and vibratory plate compactors.

Hydraulic Cylinder Snubbers

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

Operator Station

Spacious, comfortable, and easy to operate.



Operator Station

The workstation is spacious, quiet and comfortable, assuring high productivity during a long work day. The air conditioner and attachment switches are conveniently located on the right-hand wall, and the key switch and throttle dial are on the right-hand console. The monitor is mounted in front of the right front cab post and is easy to see.

Standard Cab Equipment

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

Monitor

The monitor is a full color Liquid Crystal Display (LCD) graphic display. The monitor angle can be adjusted to minimize sun glare and has the capability of displaying information in 27 different languages.

Console

Redesigned consoles feature a simple, functional design to reduce operator fatigue. Both consoles have attached armrests with height adjustments.

Clock and Throttle Dial Display

The clock and throttle dial position are displayed in this area. When Economy mode/Power management system is activated, the icon of the gas station icon will be indicated at the side of the throttle dial.

Multi-information Display

This area is reserved for displaying various information which is convenient for the operator. The "Cat" logo mark is displayed when no information is available to be displayed.

Joystick Control

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

Seat

A new optional air suspension seat is available in the 324D L. 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 left console.

ROPS Certified Operator Station

The 324D L features a new ROPS (Roll Over Protective Structure) compliant cab structure as standard. This design also allows for a Falling Object Guard System (FOGS) or front windshield guard to be bolted directly to the cab, either at the factory or in the field, enabling the machine to meet all job site requirements.

- Eleven percent more glass versus previous non-ROPS cab to improve visibility
- Three percent more interior head room space
- Improved cab pressurization
- Viscous rubber cab mounts to dampen vibrations to enhance operator comfort
- ROPS cab air filter accessible at ground level

Cab Mounts

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

Windows

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

Wipers

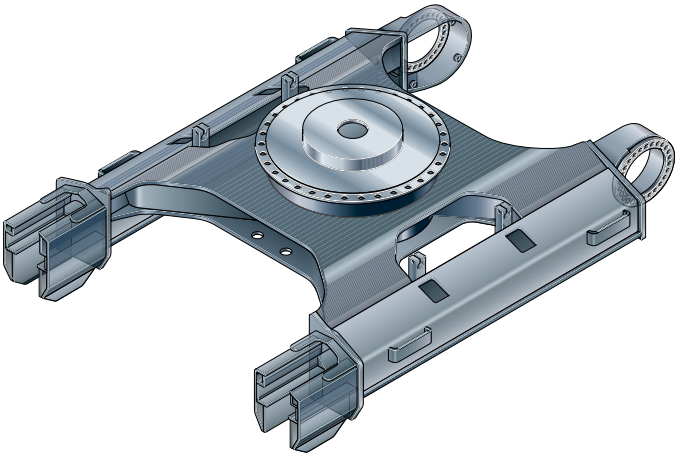
Pillar-mounted wipers increase the operator's viewing area and offer continuous and intermittent modes.

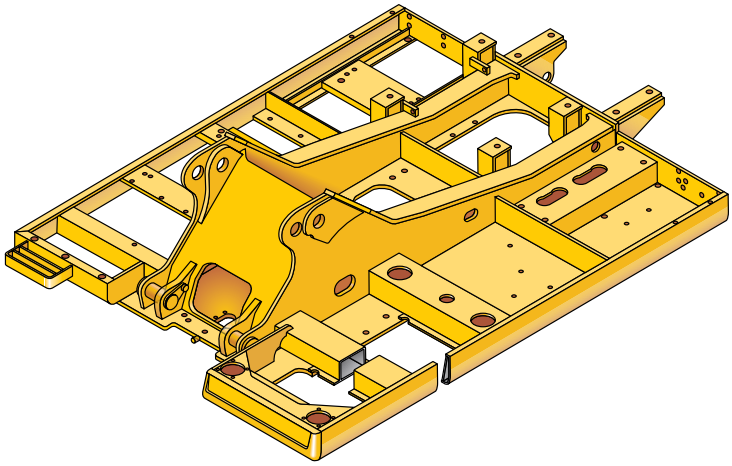
Skylight

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

Product Link™

Product Link is now an attachment available from the factory.





Structures

The backbone of machine durability.

Robotic Welding

Up to 95% of the structural welds on a Cat 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 torsion 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.

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.

Standard Undercarriage

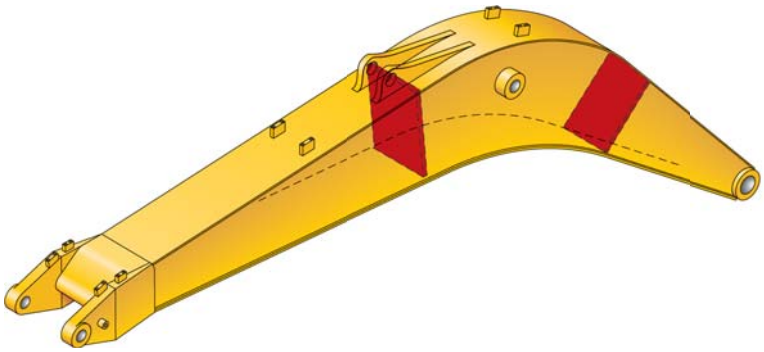
The standard undercarriage is well suited for applications that require frequent repositioning of the machine, have restricted working space, or uneven, rocky terrain.

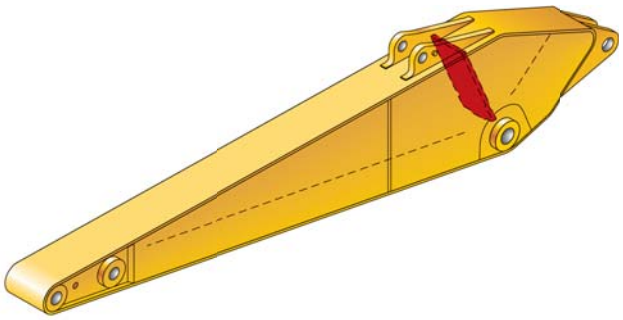
Long Undercarriage

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

Booms and Sticks

Designed-in flexibility to deliver higher production and efficiency to every job.





Configurations

Designed for maximum flexibility, productivity, and high efficiency on all jobs, the 324D L offers a wide range of configurations suitable for a variety of applications.

Booms

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

Sticks

The sticks are made of high-tensile-strength steel using a large box-section design with interior baffle plates and an additional bottom guard.

Reach Boom

The reach boom features an optimum design that maximizes digging envelopes with two stick choices: R2.95CB1 and R2.5CB1 Sticks:

- The CB1-family buckets associated with these sticks have enough capacity for excellent reach and depth in trenching and general construction applications.
- **R2.95CB1 Stick** – The most versatile front linkage and is a good fit for all 11-ton dump trucks with regard to reach and bucket capacity.
- **R2.5CB1 Stick** – Provides excellent digging envelope with large bucket sizes.

Mass Excavation Boom

The mass excavation boom maximizes productivity. The mass version offers significantly higher digging forces and allows use of larger buckets.

- **M2.5DB Stick** – The DB Stick uses a DB-family bucket and was designed for high-volume earth moving, powerful digging force, and a large capacity bucket. Combined with a mass boom, this stick delivers outstanding productivity.

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 and increases machine-lifting capability in key lifting positions.

Work Tools – Attachments

An extensive selection to optimize machine performance.

Service Life

Cat buckets increase service life and reduce repair costs.

- Dual radius design for increased heel clearance and reduced wear
- Robot welding of hinge assembly for increased weld penetration and longer life
- New aggressive and easier-to-install K Series™ GET tool system
- High-strength and heat-treated steel that exceeds T-1 in high wear areas

Excavation Buckets (X)

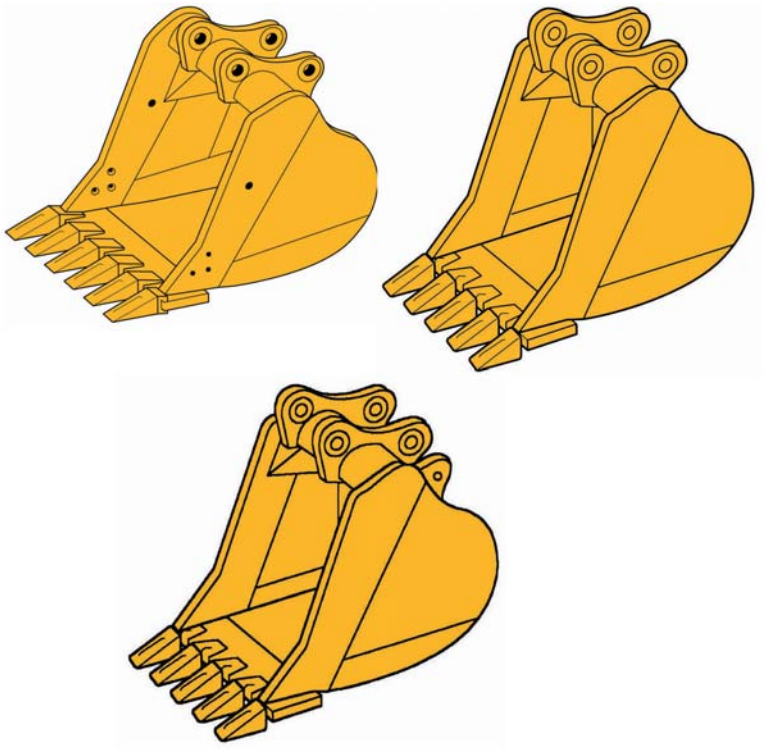
Excavation (X) buckets for digging in low-impact, moderately abrasive materials such as dirt, loam, gravel and clay.

Heavy-Duty Buckets

HD buckets 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.

Heavy-Duty Power (HDP) Buckets

HDP buckets are best for use in moderately abrasive applications where breakout force and cycle times are critical. They maximize tip force and improves cycle times in most materials. The cutting edge and GET are sized up for the tougher work. Not for use in sticky material conditions.



Heavy-Duty (HD) Rock Buckets

HD rock buckets are best for aggressive bucket loading in highly abrasive application such as shot rock and granite. Features include:

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

Cat Ground Engaging Tools (GET)

The Cat K Series GET is featured on the new buckets. This new GET system uses a hammerless vertical retainer, which is easier to remove and install than the Cat J Series pin. The new tooth shapes are more aggressive and offer better penetration than the previous generation of tips. There is also a variety of sidecutters and sidebar protectors to match operating conditions.

Tool Control System

The optional tool control system maximizes work tool productivity by configuring hydraulic flow, pressure, and operator controls to match a specific work tool. System versatility enables a wide range of tools to be used.

Hammer

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

Thumb

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.

Multi Processor

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.

Vibratory Plate Compactor

Cat 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.

360° Scrap Shear

Cat scrap shears feature 360° rotation and a high force-to-weight ratio. Used for demolishing steel structures and preparing bulk scrap for further processing.

Pin-Grabber Quick Coupler

Pin-Grabber Plus quick couplers multiply the versatility and utility of Cat excavators by allowing them to pick up and use virtually any work tool equipped with standard pins.

Service and Maintenance

Simplified service and maintenance to save you time and money.

Ground Level Service

The design and layout of the 324D L was made with the service technician in mind. Many service locations are easily accessible at ground level, allowing critical maintenance to get done quickly and efficiently.

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 aftercooler. A reserve tank and drain cock are attached to the radiator for simplified maintenance.

Capsule Filter

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

Greasing Points

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

Fan Guard

The engine radiator fan is completely enclosed by fine wire mesh, reducing the risk of an accident.

Anti-Skid Plate

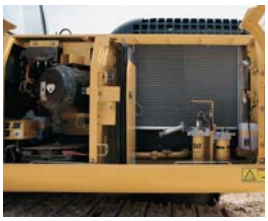
Anti-skid plate covers the top of storage box and upper structure to prevent slipping during maintenance.

Diagnostics and Monitoring

The 324D L is equipped with S·O·S℠ sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Cat Electronic Technician (Cat ET) service tool is located in the cab.

Extended Service Interval

324D L service and maintenance intervals have been extended to reduce machine service time and increase machine availability.



Complete Customer Support

Dealer services to help you operate 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 downtime. You can save money with remanufactured components.

Machine Selection

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

Purchase

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

Customer Support Agreements

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

324D L Hydraulic Excavator Specifications

Engine

Engine Model	Cat C7 with ACERT Technology
Net Flywheel Power	140 kW (187 hp)
Net Power – ISO 9249	140 kW (187 hp)
Bore	110 mm
Stroke	127 mm
Displacement	7.2 L

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No engine derating needed up to 2300 m.

Weights

Operating Weight – Long Undercarriage	25 870 kg

- Long Undercarriage – reach boom, R2.95CB1 stick, 1.1 m^3 bucket, 800 mm shoes.

Track

Optional – Triple Grouser	600 mm
Optional	700 mm
Optional – Double Grouser	600 mm

Swing Mechanism

Swing Speed	9.6 rpm
Swing Torque	73.4 kN·m

Drive

Maximum Drawbar Pull	227 kN
Maximum Travel Speed	5.5 km/h

Hydraulic System

Main Implement System – Maximum Flow (2×)	235 L/min
Maximum Pressure – Equipment	35 000 kPa
Maximum Pressure – Travel	35 000 kPa
Maximum Pressure – Swing	24 500 kPa
Pilot System – Maximum Flow	32.4 L/min
Pilot System – Maximum Pressure	3900 kPa
Boom Cylinder – Bore	135 mm
Boom Cylinder – Stroke	1305 mm
Stick Cylinder – Bore	140 mm
Stick Cylinder – Stroke	1660 mm
B1 Family Bucket Cylinder – Bore	120 mm
B1 Family Bucket Cylinder – Stroke	1104 mm
CB1 Family Bucket Cylinder – Bore	130 mm
CB1 Family Bucket Cylinder – Stroke	1156 mm
DB Family Bucket Cylinder – Bore	150 mm
DB Family Bucket Cylinder – Stroke	1151 mm

Service Refill Capacities

Fuel Tank Capacity	520 L
Cooling System	30 L
Engine Oil	30 L
Swing Drive	10 L
Final Drive (each)	6 L
Hydraulic System (including tank)	300 L
Hydraulic Tank	145 L

Sound Performance

Performance	ANSI/SAE J1166 APR90

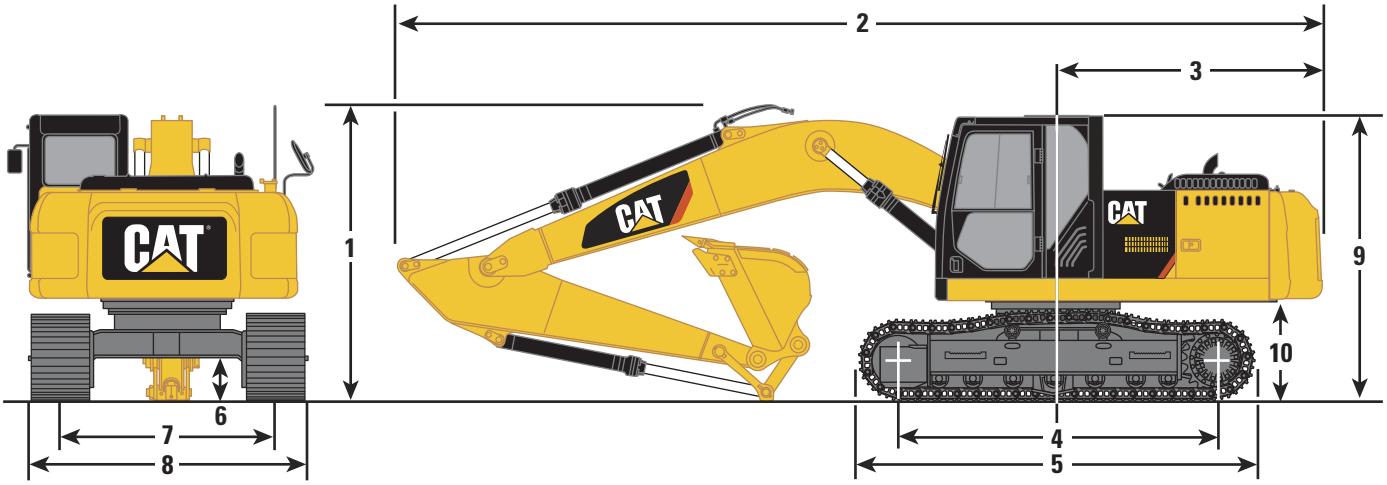
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating 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
Cab/ROPS	ISO 12117-2:2008

Dimensions

All dimensions are approximate.

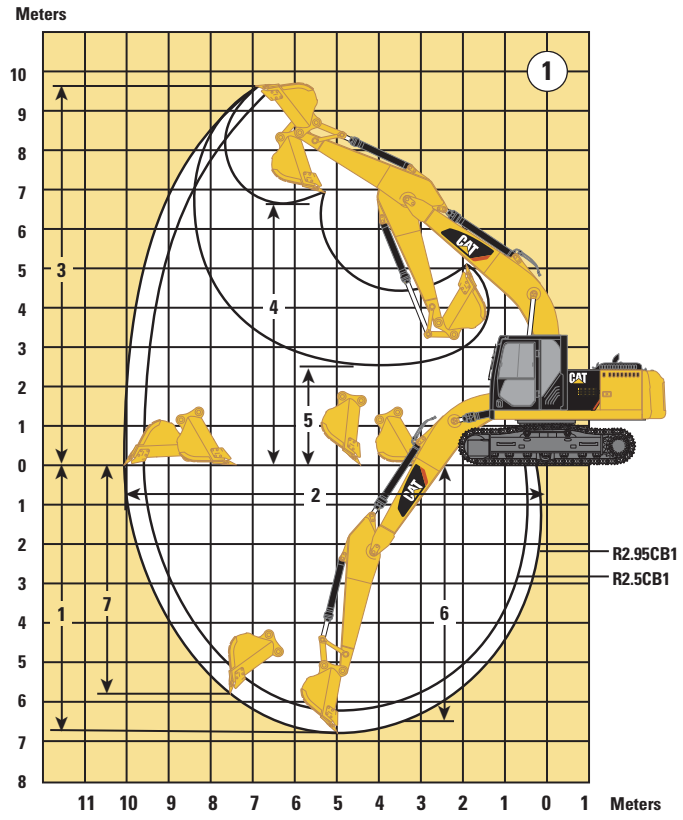


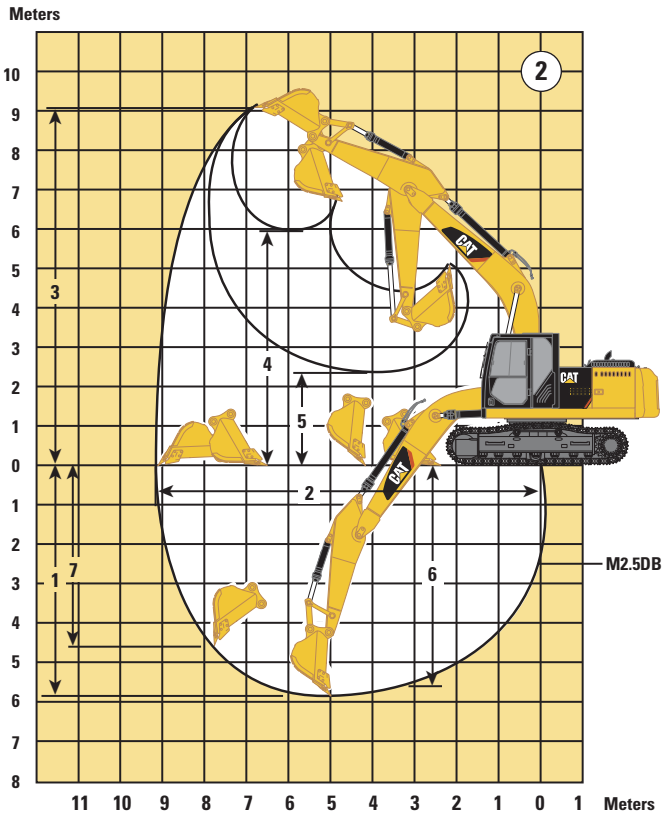
Boom Options	Reach Boom – 5.9 m		Mass Boom – 5.3 m
Stick Options	**R2.95CB1**	**R2.5CB1**	**M2.5DB**
1 Shipping Height**	3170 mm	3300 mm	3450 mm
2 Shipping Length	10 060 mm	10 100 mm	9480 mm
3 Tail Swing Radius	2940 mm	2940 mm	2940 mm
Undercarriage		**Long Fixed Gauge**	
4 Length to Centers of Rollers		3830 mm	
5 Track Length		4630 mm	
6 Ground Clearance***		470 mm	
7 Track Gauge		2590 mm	
8 Track Width*		3390 mm	
9 Cab Height**		2980 mm	
10 Counterweight Clearance***		1060 mm	

*Track width shown is for 600 mm track shoes for Fixed Gauge and 800 mm for Long Fixed Gauge.
**Includes 30 mm shoe lug height.
***Without 30 mm shoe lug height.

324D L Hydraulic Excavator Specifications

Working Ranges

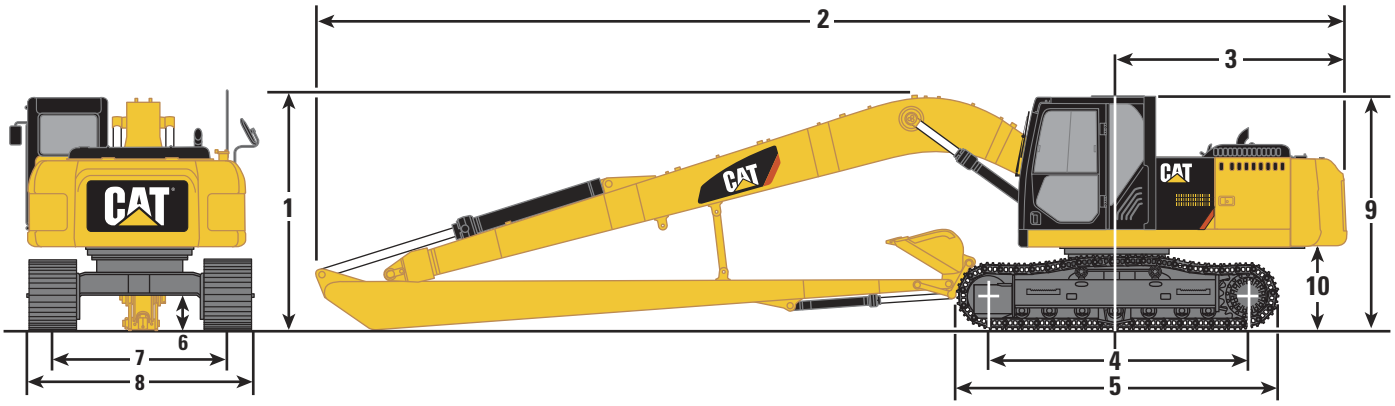




Boom Options	1 Reach Boom – 5.9 m		2 Mass Boom – 5.3 m
Stick Options	**R2.95CB1**	**R2.5CB1**	**M2.5DB**
1 Maximum Digging Depth	6740 mm	6290 mm	5910 mm
2 Maximum Reach at Ground Level	10 030 mm	9620 mm	9110 mm
3 Maximum Cutting Height	9660 mm	9460 mm	9060 mm
4 Maximum Loading Height	6700 mm	6500 mm	5970 mm
5 Minimum Loading Height	2470 mm	2930 mm	2360 mm
6 Maximum Depth Cut for 2240 mm Level Bottom	6560 mm	6080 mm	5720 mm
7 Maximum Vertical Wall Digging Depth	5830 mm	5390 mm	4590 mm
Bucket Digging Force (ISO)	154 kN	154 kN	198 kN
Bucket Digging Force (SAE)	174 kN	174 kN	222 kN
Stick Digging Force (ISO)	118 kN	138 kN	135 kN
Stick Digging Force (SAE)	122 kN	143 kN	140 kN

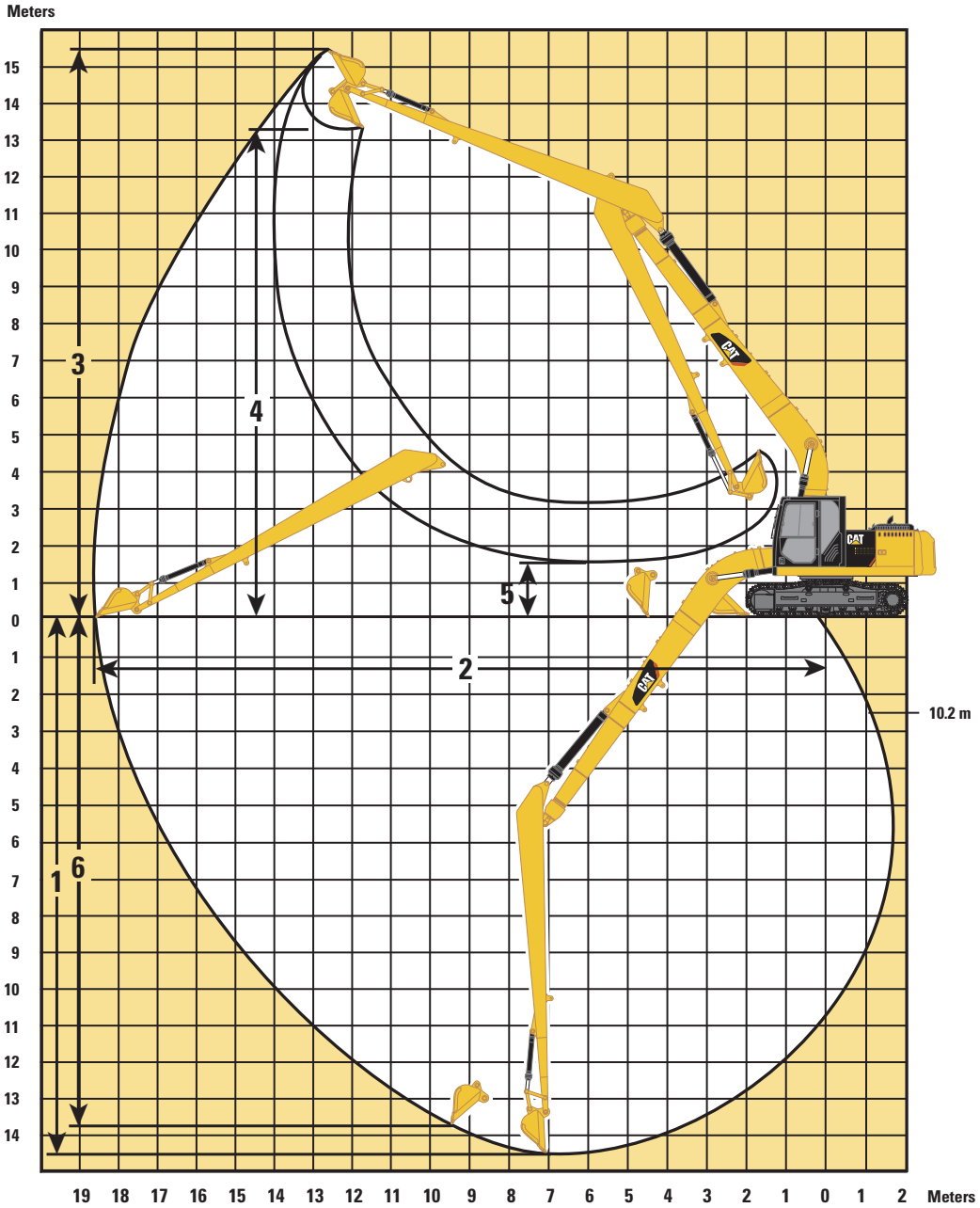
Dimensions

All dimensions are approximate.



Boom Options	Super Long Reach Boom – 10.2 m
Stick Options	**7.85 m**
1 Shipping Height	3150 mm
2 Shipping Length	14 340 mm
3 Tail Swing Radius	3000 mm
4 Length to Centers of Rollers	3830 mm
5 Track Length	4630 mm
6 Ground Clearance	440 mm
7 Track Gauge	2590 mm
8 Transport Width	
800 mm Shoes (standard)	3390 mm
700 mm Shoes (optional)	3290 mm
600 mm Shoes (optional)	3190 mm
9 Cab Height	2980 mm
10 Counterweight Clearance	1060 mm

Working Ranges



Boom Options	Super Long Reach Boom – 10.2 m
Stick Options	**7.85 m**
Bucket Options	**DC 0.61 m³**
1 Maximum Digging Depth	14 594 mm
2 Maximum Reach at Ground Level	18 603 mm
3 Maximum Cutting Height	15 411 mm
4 Maximum Loading Height	13 285 mm
5 Minimum Loading Height	1483 mm
6 Maximum Vertical Wall Digging Depth	13 922 mm

Major Component Weights

		kg
Base Machine with Counterweight and 800 mm Shoes (without front linkage)	With 600 mm Shoe	19 760
	With 800 mm Shoe	21 050
Two Boom Cylinders (each)		227
Counterweight		
Non-removal Type		4520
Boom (includes lines, pins and stick cylinder)		
Reach Boom		2033
Mass Boom		2138
Stick (includes lines, pins, bucket cylinder and linkage)		
R2.95CB1		1208
R2.5CB1		1149
M2.5DB		1470
Track Roller Frame (includes frame, rollers, idlers, steps, guards, final drive, 800 mm shoes) – each	With 600 mm Shoe	7950
	With 800 mm Shoe	9240

324D L Hydraulic Excavator Specifications

324D L Bucket Specifications and Compatibility

	Capacity*	Width	Tip Radius	Weight (without tips)	Teeth	Total Weight	Reach Stick		Mass Stick
	m^3	mm	mm	kg	Qty	kg	R2.95CB1	R2.5CB1	M2.5DB
B1 Buckets									
Excavation	0.9	1092	1488	647	5	647	●	●	—
CB1 Buckets									
Excavation	1.0	1232	1555	822	5	822	●	●	—
	1.1	1320	1555	857	5	857	●	●	—
	1.2	1420	1555	896	5	896	◒	●	—
DB Buckets									
Excavation	1.4	1472	1660	1124	5	1124	—	—	◒
	1.5	1559	1660	1167	5	1167	—	—	◒

Assumptions for maximum material density rating:

1. Front linkage fully extended at ground line
2. Bucket curled
3. 100% bucket fill factor

*Based on SAE J296, some calculations of capacity specifications fall on borderlines. Rounding may allow two buckets to have the same English rating, but different metric ratings.

● 2100 kg/m^3 maximum material density
◒ 1800 kg/m^3 maximum material density
○ 1500 kg/m^3 maximum material density
— Not Available

324D L Work Tool Matching Guide

Boom Options	Reach Boom – 5.9 m		Mass Boom – 5.3 m
Stick Options	**R2.95CB1**	**R2.5CB1**	**M2.5DB**
Hydraulic Hammer	H115Cs/ H120Cs/ H130Ds	H115Cs/ H120Cs/ H130Ds	H115Cs/ H120Cs/ H130Ds
Vibratory Plate Compactor	CVP110	CVP110	CVP110
Multi Processor	MP20	MP20	N/A
360° Scrap Shear	S320	S320	N/A
Trash Grapple	2.7 m^3	2.7 m^3	3.1 m^3
Contractors' Grapple	Yes	Yes	N/A
Hydraulic Thumb	Yes	Yes	N/A
Dedicated Quick Coupler	Yes	Yes	Yes
Pin-Grabber Quick Coupler	Yes	Yes	Yes

324D L Hydraulic Excavator Specifications

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

R2.95CB1 Stick – 2.95 m
Bucket – 1.2 m^3
Undercarriage – Long
Shoes – 600 mm triple grouser
Boom – 5.9 m
Counterweight – 4500 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
																m
7.5 m	kg													*3750	*3750	7.07
6.0 m	kg									*5050	4100			*3550	3500	8.12
4.5 m	kg							*6200	5950	*5550	4000			*3550	2900	8.77
3.0 m	kg					*10 500	8800	*7500	5550	6100	3800			*3700	2650	9.10
1.5 m	kg					*12 750	8150	8550	5200	5900	3600	4300	2600	*4000	2500	9.16
Ground Line	kg					*11 400	7900	8300	5000	5750	3500			4300	2600	8.94
–1.5 m	kg			*6850	*6850	*12 900	7900	8200	4950	5700	3450			4700	2850	8.44
–3.0 m	kg			*12 350	*12 350	*11 650	8000	8250	5000	5750	3500			5650	3450	7.60
–4.5 m	kg					*9150	8250	*6700	5150					*6200	4850	6.26

R2.95CB1 Stick – 2.95 m
Bucket – 1.2 m^3
Undercarriage – Long
Shoes – 700 mm triple grouser
Boom – 5.9 m
Counterweight – 4500 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
																m
7.5 m	kg													*3750	*3750	7.07
6.0 m	kg									*5050	4150			*3550	3550	8.12
4.5 m	kg							*6200	6000	*5550	4050			*3550	2950	8.77
3.0 m	kg					*10 500	8900	*7500	5650	6150	3850			*3700	2650	9.10
1.5 m	kg					*12 750	8200	8650	5300	5950	3650	4400	2650	*4000	2550	9.16
Ground Line	kg					*11 400	8000	8400	5050	5850	3550			4350	2600	8.94
–1.5 m	kg			*6850	*6850	*12 900	8000	8300	5000	5750	3500			4800	2900	8.44
–3.0 m	kg			*12 350	*12 350	*11 650	8100	8350	5050	5850	3550			5700	3450	7.60
–4.5 m	kg					*9150	8350	*6700	5250					*6200	4900	6.26

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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

Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

R2.95CB1 Stick – 2.95 m
Bucket – 1.5 m^3
Undercarriage – Long
Shoes – 800 mm triple grouser
Boom – 5.9 m
Counterweight – 4500 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
																m
7.5 m	kg													*3600	*3600	7.07
6.0 m	kg									*4900	4100			*3500	*3500	8.05
4.5 m	kg							*6050	6000	*5400	4000			*3500	2950	8.71
3.0 m	kg					*10 250	9000	*7300	5650	*6050	3800			*3650	2650	9.06
1.5 m	kg					*12 600	8250	*8550	5300	5950	3650	4350	2600	*3950	2500	9.13
Ground Line	kg					*13 250	8000	8450	5050	5800	3500			4350	2550	8.93
–1.5 m	kg			*6650	*6650	*12 850	8000	8350	4950	5750	3450			4750	2800	8.44
–3.0 m	kg			*12 250	*12 250	*11 650	8100	8350	5000	5800	3500			5650	3400	7.63
–4.5 m	kg					*9250	8350	*6750	5200					*6150	4800	6.33

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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

Mass Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

M2.5DB Stick – 2.5 m
Bucket – 1.6 m^3
Undercarriage – Long
Shoes – 600 mm triple grouser
Boom – 5.3 m
Counterweight – 4500 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														m
7.5 m	kg											*4450	*4450	5.89
6.0 m	kg							*5700	*5700			*4450	4400	6.90
4.5 m	kg							*6300	5650			*4350	3400	7.68
3.0 m	kg					*10 050	8650	*7400	5300	5800	3450	*4500	2950	8.07
1.5 m	kg					*12 350	7950	8300	4950	5600	3300	4800	2800	8.15
Ground Line	kg					*13 000	7650	8050	4750	5500	3200	5000	2900	7.93
–1.5 m	kg			*11 400	*11 400	*12 400	7650	8000	4700			5650	3300	7.38
–3.0 m	kg			*13 950	*13 950	*10 600	7800	*7650	4800			*6750	4300	6.43
–4.5 m	kg													

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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

324D L Hydraulic Excavator Specifications

Super Long Reach Boom Lift Capacities

 Load Point Height

 Load Radius Over Front

 Load Radius Over Side

 Load at Maximum Reach

Stick – 7.85 m
Bucket – 0.61 m³ Ditch Cleaning

Undercarriage – Super Long
Shoes – 800 mm triple grouser

Boom – 10.2 m
Counterweight – 6800 kg

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
12.0 m	kg													*800	*800	14.52
10.5 m	kg													*750	*750	15.50
9.0 m	kg													*750	*750	16.27
7.5 m	kg													*750	*750	16.87
6.0 m	kg													*750	*750	17.30
4.5 m	kg													*750	*750	17.60
3.0 m	kg											*3000	*3000	*800	*800	17.75
1.5 m	kg					*3400	*3400	*5800	*5800	*4300	*4300	*3500	*3500	*850	*850	17.77
Ground Line	kg			*900	*900	*2600	*2600	*6350	5500	*5000	4150	*3950	3250	*900	*900	17.66
–1.5 m	kg			*1550	*1550	*2800	*2800	*5350	5100	*5500	3800	*4350	3000	*1000	950	17.41
–3.0 m	kg	*1850	*1850	*2250	*2250	*3350	*3350	*4800	*4800	*5850	3600	*4650	2800	*1100	950	17.03
–4.5 m	kg	*2500	*2500	*3000	*3000	*3900	*3900	*4750	*4750	6000	3500	4600	2700	*1200	1000	16.49
–6.0 m	kg	*3200	*3200	*3750	*3750	*3900	*3900	*5000	4800	5950	3450	4550	2650	*1400	1100	15.78
–7.5 m	kg	*3950	*3950	*3950	*3950	*3950	*3950	*5450	4900	*6000	3500	4550	2650	*1700	1250	14.88
–9.0 m	kg	*3950	*3950	*3900	*3900	*4500	*4500	*6000	5050	*5750	3600	4650	2700	*2100	1450	13.75
–10.5 m	kg			*4000	*4000	*5450	*5450	*6550	5250	*5300	3750	*4350	2850	*2800	1850	12.31
–12.0 m	kg					*6400	*6400	*5550	*5550	*4500	3950	*3700	3050	*2950	2500	10.46
–13.5 m	kg															

		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m				m
12.0 m	kg											*800	*800	14.52
10.5 m	kg							*1200	*1200			*750	*750	15.50
9.0 m	kg							*1650	*1650			*750	*750	16.27
7.5 m	kg					*1700	*1700	*1700	*1700	*1150	*1150	*750	*750	16.87
6.0 m	kg					*1850	*1850	*1800	1750	*1550	1350	*750	*750	17.30
4.5 m	kg			*2100	*2100	*2000	*2000	*1900	1650	*1850	1300	*750	*750	17.60
3.0 m	kg	*2600	*2600	*2350	*2350	*2150	1950	*2050	1550	*1950	1250	*800	*800	17.75
1.5 m	kg	*2950	2800	*2600	2250	*2350	1800	*2200	1450	*2050	1150	*850	*850	17.77
Ground Line	kg	*3300	2600	*2850	2100	*2550	1700	*2300	1350	2000	1100	*900	*900	17.66
–1.5 m	kg	*3600	2400	*3100	1950	2700	1600	2300	1300	1950	1050	*1000	950	17.41
–3.0 m	kg	3800	2250	3150	1850	2600	1500	2200	1250	1900	1050	*1100	950	17.03
–4.5 m	kg	3700	2150	3050	1750	2550	1450	2200	1200			*1200	1000	16.49
–6.0 m	kg	3650	2100	3000	1700	2550	1400	2200	1200			*1400	1100	15.78
–7.5 m	kg	3650	2100	3000	1700	2550	1450					*1700	1250	14.88
–9.0 m	kg	3700	2150	3050	1750	2600	1500					*2100	1450	13.75
–10.5 m	kg	*3600	2250	*2950	1900							*2800	1850	12.31
–12.0 m	kg											*2950	2500	10.46
–13.5 m	kg													

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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

Standard Equipment

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

UPPER STRUCTURE

- Electrical
  - Alternator, 80A
  - Light, storage box mounted (one)
  - Signaling/warning horn
- Engine
  - Cat C7 with ACERT Technology
  - 2300 m altitude capability with no deration
  - Air intake heater
  - Automatic engine speed control
  - Radial seal air filter
  - Water separator in fuel line
  - Waved fin radiator with space for cleaning
  - 2 micron fuel filter
- Automatic swing parking brake
- Boom drift reducing valve
- Boom lowering device for back-up
- Cat one key security system
- Counterweight
- Door locks and cap locks
- Mirrors, rearview (frame-right, cab-left)
- Regeneration circuit for boom and stick
- Reverse swing damping valve
- Stick drift reducing valve
- Two speed travel

OPERATOR STATION

- Cab
  - Adjustable armrest
  - Ashtray with lighter
  - Beverage holder
  - Bi-Level air conditioner (automatic) with defroster
  - Bolt-on FOGS capability
  - Capability of installing two additional pedals
  - Coat hook
  - Front windshield glass split 70/30
  - Interior lighting
  - Literature holder
  - Mounting for two stereo speakers (two locations)
  - Neutral lever (lock out) for all controls
  - Openable front windshield with assist device
  - Openable skylight
  - Pillar mounted upper windshield wiper and washer
  - Pressurized cab (positive filtered ventilation)
  - Radio mounting (DIN size)
  - Rear window, emergency exit
  - Removable lower windshield with in-cab storage bracket
  - ROPS cab
  - Seat with integrated, adjustable console
  - Seat belt, retractable (50.8 mm width)
  - Sliding upper door window
  - Storage compartment suitable for lunch box
  - Travel control pedals with removable hand levers
  - Utility space for magazine
  - Washable floor mat
- Monitor
  - Economy mode
  - Full time clock
  - Language display – full color and graphical display
  - Machine condition, error code and tool mode setting
  - Start-up level check for hydraulic oil, engine oil and coolant
  - Warning information, filter/fluid change information and working hour

UNDERCARRIAGE

- Grease lubricated GLT2, resin seal
- Idler and center section track guiding
- 800 mm triple grouser track shoes (324D L)

Optional Equipment

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

FRONT LINKAGE

- Bucket linkage, B1-family with lifting eye
- Bucket linkage, CB1-family with lifting eye
- Bucket linkage, DB-family with lifting eye
- Heavy-duty 5.9 m reach boom (with left and right side light)
- Heavy-duty 2.95 m stick for heavy-duty reach boom
- Reach boom 5.9 m with left and right side light
  - R2.95CB1 2950 mm stick
  - R2.5CB1 2500 mm stick
- Mass boom 5.3 m with left and right side light
  - M2.5DB 2500 mm stick

TRACK

- Long undercarriage
  - 600 mm triple grouser shoes
  - 700 mm triple grouser shoes

GUARDS

- FOGS, bolt-on
- Guard, cab front
- Guard, cab top
- Guard, full length for long undercarriage (two piece)
- Guard, heavy-duty bottom, 4 mm, without swivel guard and travel motor protection
- Guard, track end guide for long undercarriage
- Guard, vandalism
- Heavy-duty swivel protection, 16 mm, swivel guard only
- Heavy-duty travel motor protection
- Net for front guard (full net, one piece)
- Net for front guard (half net, one piece)
- Swivel protection, 6 mm, swivel guard only

AUXILIARY HYDRAULICS AND LINES

- Additional circuit
  - Hammer return filter circuit
- Boom and stick lines
  - Cat quick coupler line (high and medium pressure capable)
  - Drain line
  - High pressure line
  - Medium pressure line
- Quick coupler
  - Quick coupler for high pressure
- Tool control system
  - Configuration 1 (hammer 1), foot pedal operated 1P, one-way circuit
  - Configuration 2 (common), foot pedals operated 1/2P, common circuit
  - Configuration 3 (hammer 2), foot pedal operated 2P, one-way circuit

OPERATOR STATION

- Tempered glass windows
- Polycarbonate windows
- Power supply, 12V-7A (1)
- Power supply, 12V-7A (2)
- Rear window emergency exit
- Seat, high-back air suspension
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Seat, low-back suspension without headrest
- Headrest
- Sunscreen
- Windshield wiper, lower with washer
- Working lights, cab mounted
- Rain protector for front windshield
- Sun visor
- AM/FM radio
- Control pattern quick-changer, two way
- Control pattern quick-changer, four way
- Cat MSS (anti-theft device)
- Lunch box with cover
- Water level indicator for water separator

OTHER OPTIONAL EQUIPMENT

- Additional gear train for auxiliary pump
- Air pre-filter
- Cooling package, high ambient with VSF
- Cooling package, semi-high ambient
- Electric refueling pump with auto shut off
- Fine swing
- Starting kit, cold weather, –32° C
- Travel alarm

Notes

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

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