

324E

Hydraulic Excavator



Engine

Engine Model	Cat® C7.1 ACERT™	
Net Power – SAE J1349/ISO 9249	142 kW	190 hp

Drive

Maximum Travel Speed	5.3 km/h	3.3 mph
Maximum Drawbar Pull	227 kN	51,302 lbf

Weight

Minimum Operating Weight	25 127 kg	55,395 lb
Maximum Operating Weight	29 479 kg	64,990 lb

Introduction

Since its introduction in the 1990s, the 300 Series family of excavators has become the industry standard in general, quarry, and heavy construction applications. The all-new E Series and the 324E will continue that trend-setting standard.

The 324E meets today's U.S. emission standards. It is also built with several new fuel-saving and comfort-enabling features and benefits that will delight owners and operators.

If you are looking for more productivity and comfort, less fuel consumption and emissions, and easier and more sensible serviceability, you will find it in the all-new 324E and the E Series family of excavators.



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Engine

Reduced emissions, economical and reliable performance

Cat® C7.1 ACERT™ Engine

The Cat C7.1 ACERT engine delivers more horsepower using less fuel than the previous series engine.

Emissions Solution

The C7.1 ACERT engine is equipped to meet U.S. Tier 4 Interim emission standards. Driven by customer input, Caterpillar's aftertreatment regeneration solution ensures the machine works with no operator intervention needed.

The machine comes with two modes of regeneration: automatic and manual.

In automatic mode, the machine starts the regeneration process once the filtering system reaches a certain level and conditions are optimal. The system will not interrupt the work process and can regenerate during machine operation.

Manual mode enables the operator to override the automatic mode. With a touch of a button inside the cab, this mode allows the operator to move the machine from flammable or heat-restricted areas before initiating the regeneration process.

Biodiesel-Ready Fuel System

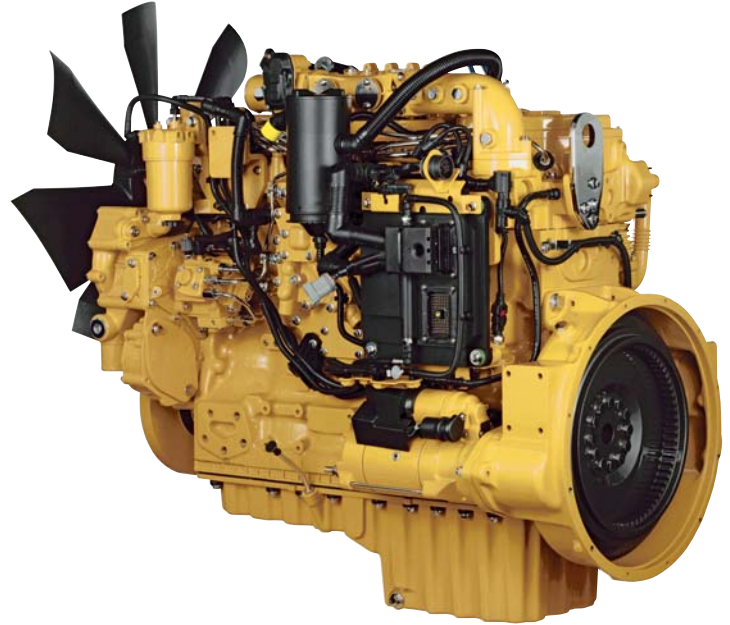
The C7.1 ACERT engine is equipped with an electronic-controlled high-pressure fuel system that includes an electric priming pump and three-layer fuel hose to allow the use of biodiesel (meeting ASTM 6751 or EN 14214) up to B20 (biodiesel 20% mixture).

Cooling System

The cooling system features side-by-side-mounted hydraulic oil cooler and engine radiator with a tilt-out condenser and air-to-air aftercooler for easy cleaning. The fan automatically adjusts to ambient temperatures to help reduce fuel consumption and noise.

Speed and Power Control

The E Series features speed control to maintain a constant speed – regardless of load – to improve fuel economy. Three different power modes are offered: high power, standard power, and economy power. The operator can easily change between modes through the monitor or console switch to meet the needs for the job at hand – all to help manage and conserve fuel.



Operator Station

Comfort and convenience to keep people productive



Seats

The seat range includes air suspension, heated, and air cooled options. Each option includes a reclining back, upper and lower seat slide adjustments, and height and tilt angle adjustments to meet operator needs for comfort and productivity.

Controls

The right and left joystick consoles can be adjusted to meet individual preferences, improving operator comfort and productivity during the course of a day. With the touch of the button, one-touch idle reduces engine speed to help save fuel; touch it again or move the joystick and the machine returns to normal operating level. The heavy lift mode increases machine system pressure to improve lift – a nice benefit in certain situations. Heavy lift mode also reduces engine speed and pump flow in order to improve controllability.

Monitor

The 324E is equipped with a new LCD (Liquid Crystal Display) monitor that's 40% bigger and has higher resolution than the previous model's monitor. In addition to an improved keypad and added functionality, it's programmable to provide information in a choice of 42 languages to support today's diverse workforce.

An "Engine Shutdown Setting" accessible through the monitor allows owners and operators to specify how long the machine should idle before shutting down the engine, which can save significant amounts of fuel.

The image of the rearview camera is displayed directly on the monitor. Up to two different camera images can be displayed on the screen at the same time.

MP3-Ready Radio and Power Supply

The standard radio is equipped with a new auxiliary audio port for MP3 players. Two 12-volt power supply sockets are located near key storage areas for charging electronic devices.

Storage

Storage spaces are located in the front, rear, and side consoles. Space near the auxiliary power supply holds MP3 players and cell phones. The drink holder accommodates large mugs with handles, and a shelf behind the seat stores large lunch or toolboxes.

Automatic Climate Control

The climate control system features five air outlets with positive filtered ventilation, which makes working in the heat and cold much more pleasant for operators.



Hydraulics

Power to move more dirt, rock, and debris with speed and precision

Hydraulic Horsepower

Hydraulic horsepower is the actual machine power available to do work through implements and work tools. It's much more than just the engine power under the hood – it's a core strength that differentiates Cat machines from other brands.

Main Control Valve and Auxiliary Valves

The 324E uses a high-pressure system to tackle the toughest of work in short order. The machine features a simple, highly efficient back-to-back main control valve to improve fuel consumption and reliability. Also, shortened spool lengths and a built-in drift reduction valve have been added for greater controllability.

Return Filter

The return filter is a capsule-type design with a cartridge inside. The Cat cartridge features a handle to help remove and change oil without spillage or contamination. A sensor attached to the filter warns the operator if it is full or exceeds a certain pressure level.

Swing Priority Circuit

The swing priority circuit on the 324E uses an electric valve that's operated by the machine's Electronic Control Module (ECM). Compared to using a hydraulic valve, an electric valve allows for more finely tuned control, which is critical during material loading.

Electric Boom Regeneration Valve

An electric boom regeneration valve minimizes pump flow when the boom lowers down, which helps improve fuel efficiency. This unique Cat feature is optimized for any dial speed setting being used by the operator, which results in less pressure loss for higher controllability and more productivity with lower operating costs.

Stick Regeneration Circuit

The 324E regenerates the flow of oil from the rod end to the head end of the stick cylinder during low-load, stick-in operation – an approach that saves energy and expense.

Structures & Undercarriage

Built to work in rugged environments



Frame

The upper frame (1) includes new reinforced mountings to support the Roll-Over Protective Structure (ROPS) cab; the lower frame is reinforced to increase component durability.

Undercarriage

Fixed long undercarriage systems are available to support various work applications.

Heavy-duty track rollers, precision-forged carrier rollers (2), press-fit pin master joints, and enhanced track shoe bolts improve durability and reduce the risk of machine downtime and the need and cost to replace components.

A segmented two-piece guiding guard is now offered to help maintain track alignment and improve performance in multiple applications.

A redesigned motor housing prevents mud packing and debris buildup around seals.



Counterweights

Two counterweights are available: 4.0 mt (4.4 t) for the standard machine (3) and 6.75 mt (7.4 t) for the Super Long Reach model.





Front Linkage

Made for high stress and long service life

Booms and Sticks

The 324E is offered with a range of booms and sticks (see list below). Each is built with internal baffle plates for added durability, and each undergoes ultrasound inspection to ensure weld quality and reliability.

Large box-section structures with thick, multi-plate fabrications, castings, and forgings are used in high-stress areas such as the boom nose, boom foot, boom cylinder, and stick foot to improve durability.

The boom nose pin retention method is a durable captured flag design. Boom durability is improved with a number of plate thickness changes. Also, the front linkage pins' inner bearing surfaces are welded, and a self-lubricated bearing is used to extend service intervals and increase uptime.

Selections

There are three basic boom options: HD, SLR, and ME. Sticks match the boom descriptions and applications below:

HD = Heavy Duty

This type of boom is best used for reach applications where conditions are optimal such as excavating basements, trenching for utility lines, and sewer applications.

SLR = Super Long Reach

This configuration offers reaches to 60 feet. It is well suited for ditch cleaning applications.

ME = Mass Excavation

Mass is best used for quarry, high-volume loading, and other demanding applications. Mass fronts provide higher digging forces due to the geometry of the boom and stick relationship. Bucket linkage and cylinders are also built for greater durability.

Work Tools

You can dig, hammer, rip, and cut with confidence.



You can extend the versatility and performance of your machine with the full lineup of Cat work tools. Each tool equips your machine to perform many different tasks found at a variety of job sites.

Couplers: Quick Tool Changes

Imagine the productivity you'll achieve with a quick coupler. Combine a robust coupler with a common work tool inventory that can be shared between same size machines and you'll get performance and flexibility on every job. The Cat Center-Lock™ pin grabber coupler features a patented locking system and highly visible lock. You can clearly see when the coupler is engaged or disengaged from the attachment.

Work Tools: Cut, Crush, Pulverize and Load

No matter your specialty, Caterpillar provides tools that are perfectly matched to get the most out of your Cat machine – quickly and efficiently. Field-installed hydraulic kits are uniquely designed to integrate any Cat work tool with your 324E.

Buckets: Dig, Move, Load

Cat buckets are designed to fill efficiently so you notice a fast, smooth cycle, which means high productivity each time you dig. Wear characteristics of general duty, heavy duty, and severe duty buckets give you solid performance in a wide variety of material abrasions. Ditch cleaning and other specialty buckets are available when needed.

GRAB, SORT, LOAD



Pro Series Hydraulic Thumbs



Stiff Link Thumbs



Contractors' Grapples



Trash Grapples

SWAP TOOLS



Center-Lock™ Pin Grabber Coupler

DIG & PACK



Ditch Cleaning and Tilt Buckets



General Duty Buckets



Heavy Duty Buckets



Severe Duty Buckets



Vibratory Plate Compactors

CUT, CRUSH, BREAK & RIP



Multi-Processors



Scrap & Demolition Shears



Secondary Pulverizers



Hydraulic Hammers



Rippers



Integrated Technologies

Solutions that make work easier and more efficient

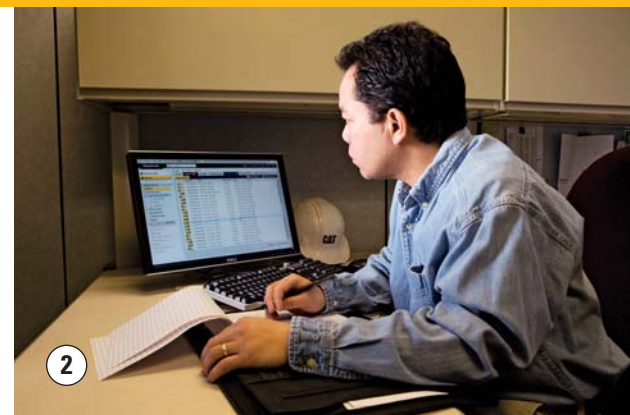
Cat® Grade Control Depth and Slope

This optional system combines traditional machine control and guidance with standard factory-installed and calibrated components, making the system ready to go to work the moment it leaves the factory. The system utilizes internal front linkage sensors – well protected from the harsh working environment – to give operators real-time bucket tip position information through the cab monitor (1), which minimizes the need and cost for traditional grade checking and improves job site safety. It also helps the operator complete jobs in fewer cycles, which means less fuel use. Cat dealers can upgrade the system to full three-dimensional control by adding proven Cat AccuGrade™ positioning technologies, including GPS and Universal Total Station (UTS).

Cat Product Link*

This deeply integrated machine monitoring system (2 and 3) is designed to help customers improve their overall fleet management effectiveness. Events and diagnostic codes as well as hours, fuel consumption, idle time, machine location, and other detailed information are transmitted to a secure web based application called VisionLink™, which uses powerful tools to communicate to users and dealers.

**Product Link licensing not available in all areas. Please consult your Cat dealer for availability.*



Serviceability

Fast, easy and safe access built in

Service Doors

Wide service doors (1) and a new hood design provide easy access to the engine and cooling compartments. Both doors and hood feature enhanced hardware and a new screen design to help minimize debris entry.

Compartments

The radiator, pump, and air cleaner (2) compartments provide easy access to major components. The fresh air filter (3) is located on the side of the cab to make it easy to reach and replace as needed.

Other Service Enhancements

The water separator with water level sensor has a primary fuel filter element located in the pump compartment near ground level; the electric priming pump is mounted on the primary filter base and is easier to service than traditional hand-priming pumps.

The fuel tank features a remote drain cock located in the pump compartment to make it easy to remove water and sediment during maintenance.

The engine oil check gauge and oil filter are situated in front of the engine compartment for easy access, and a uniquely designed drain cock helps prevent spills.

An optional QuickEvac™ system makes changing engine and hydraulic oil easy to complete in minutes rather than hours.



Safety

Features to help protect people



ROPS Cab

The ROPS-certified cab (1) allows a Falling Object Guard Structure (FOGS) to be bolted directly to it to help protect operators.

Sound Proofing

Improved sealing and roof lining lower noise levels inside the cab significantly during machine operation.

Anti-Skid Plates

The surface of the upper structure and the top of the storage box area are covered with anti-skid plates to help prevent service personnel and operators from slipping during maintenance.

Steps, Hand and Guard Rails

Steps on the track frame and storage box along with extended hand and guard rails (2) to the upper deck enable operators to more securely work on the machine.



Time Delay Cab and Boom Lights

For a predetermined amount of time after the engine start key has been turned to the “OFF” position, lights will be illuminated to enhance visibility. The time delay can vary from 0 to 90 seconds, which can be set through the monitor.

High Intensity Discharge (HID) Lights

Cab lights operate on a time delay for enhanced safety; lights can be upgraded to HID for greater night time visibility.

Visibility – Windows

Increased glass coverage enhances visibility while meeting the latest ROPS regulations.

The 70/30 split configuration features an upper window equipped with handles on the top and both sides so the operator can easily slide it to store in the ceiling. The lower window is removable and can be stored on the left wall of the cab shell.

The large skylight provides enhanced overhead visibility, excellent natural lighting, and good ventilation. The skylight can be opened completely to become an emergency exit.



Monitor Warning System

The monitor is equipped with a buzzer that can warn operators of critical events like “Engine Oil Pressure Decrease,” “Coolant Temperature High,” or “Hydraulic Oil Temperature High” so they can take any necessary action.

Rearview Camera

An optional rearview camera (3) housed in the counterweight area is available as an attachment. The image projects through the cab monitor to give the operator a clear picture of what’s behind the machine.



Complete Customer Care

Service you can count on

Product Support

Cat dealers utilize a worldwide parts network to maximize your machines' uptime. Plus they can help you save money with Cat remanufactured components.

Machine Selection

What are the job requirements and machine attachments? What production is needed? Your Cat dealer can provide recommendations to help you make the right machine choices.

Purchase

Consider financing options and day-to-day operating costs. Look at dealer services that can be included in the machine's cost to yield lower owning and operating costs over time.

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

Improving operating techniques can boost your profits. Your Cat dealer has videos, literature, and other ideas to help you 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.



Sustainability

Generations ahead in every way

- The C7.1 ACERT engine, along with the Cat Clean Emissions Module (CEM), meets U.S. Tier 4 Interim emission standards.
- Even when operating in high horsepower and high production applications, the 324E performs a similar amount of work while burning 4% to 7% less fuel than the previous D Series model. This means more efficiency, less resources consumed, and fewer CO₂ emissions.
- The 324E has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm of sulfur or less or biodiesel (B20) fuel blended with ULSD.
- A ground-level overfill indicator rises when the tank is full to help the operator avoid spilling.
- The QuickEvac™ option ensures fast, easy, and secure changing of engine and hydraulic oil.
- The 324E is built to be rebuilt with major structures and components capable of being remanufactured to reduce waste and replacement costs.
- An eco-friendly engine oil filter eliminates the need for painted metal cans and aluminum top plates. The cartridge-style spin-on housing enables the internal filter to be separated and replaced; the used internal element can be incinerated to help reduce waste.
- The 324E is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.

324E Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C7.1 ACERT™	
Net Power – SAE J1349/ISO 9249	142 kW	190 hp
Gross Power – SAE J1995	152 kW	204 hp
Bore	105 mm	4.13 in
Stroke	135 mm	5.31 in
Displacement	7.01 L	428 in ³

Weights

Minimum Operating Weight*	25 127 kg	55,395 lb
Maximum Operating Weight**	29 479 kg	64,990 lb

*5.9 m (19'4") reach boom, R2.95CB1 (9'8") stick, 4.0 mt (4.4 t) counterweight, 1.33 m³ (1.74 yd³) bucket, 600 mm (24") TG shoes.
 **SLR boom, 7.85 m (25'9") stick, 6.75 mt (7.4 t) counterweight, 0.6 m³ (0.78 yd³) bucket, 790 mm (31") shoes.

Hydraulic System

Main System	462 L/min	122 gal/min
– Maximum Flow (Total)		
Maximum Pressure	38 000 kPa	5,511 psi
– Equipment Heavy Lift		
Maximum Pressure	35 000 kPa	5,076 psi
– Equipment Normal		
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	24 497 kPa	3,553 psi
Pilot System – Maximum Flow	23.1 L/min	6.1 gal/min
Pilot System – Maximum Pressure	3920 kPa	569 psi
Boom Cylinder – Bore	135 mm	5 in
Boom Cylinder – Stroke	1305 mm	51 in
Stick Cylinder – Bore	140 mm	6 in
Stick Cylinder – Stroke	1660 mm	65 in
CB1 Bucket Cylinder – Bore	130 mm	5 in
CB1 Bucket Cylinder – Stroke	1156 mm	46 in
DB Bucket Cylinder – Bore	150 mm	6 in
DB Bucket Cylinder – Stroke	1151 mm	45 in

Drive

Maximum Travel Speed	5.3 km/h	3.3 mph
Maximum Drawbar Pull	227 kN	51,302 lbf

Swing Mechanism

Swing Speed	9.2 rpm	
Swing Torque	73.4 kN·m	54,137 lb ft

Service Refill Capacities

Fuel Tank Capacity	520 L	137.37 gal
Cooling System	44 L	11.62 gal
Engine Oil (with filter)	22.5 L	5.94 gal
Swing Drive (each)	10 L	2.64 gal
Final Drive (each)	6 L	1.59 gal
Hydraulic System (including tank)	280 L	75.29 gal
Hydraulic Tank	155 L	40.95 gal

Track

Number of Shoes (each side)	
Long Undercarriage	51
Number of Track Rollers (each side)	
Long Undercarriage	8
Number of Carrier Rollers (each side)	
Long Undercarriage	2

Sound Performance

ISO 6396	
Operator Noise (Closed)	71 dB(A)
Operator Noise (Open)	76 dB(A)
ISO 6395	
Spectator Noise	104 dB(A)

- 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.

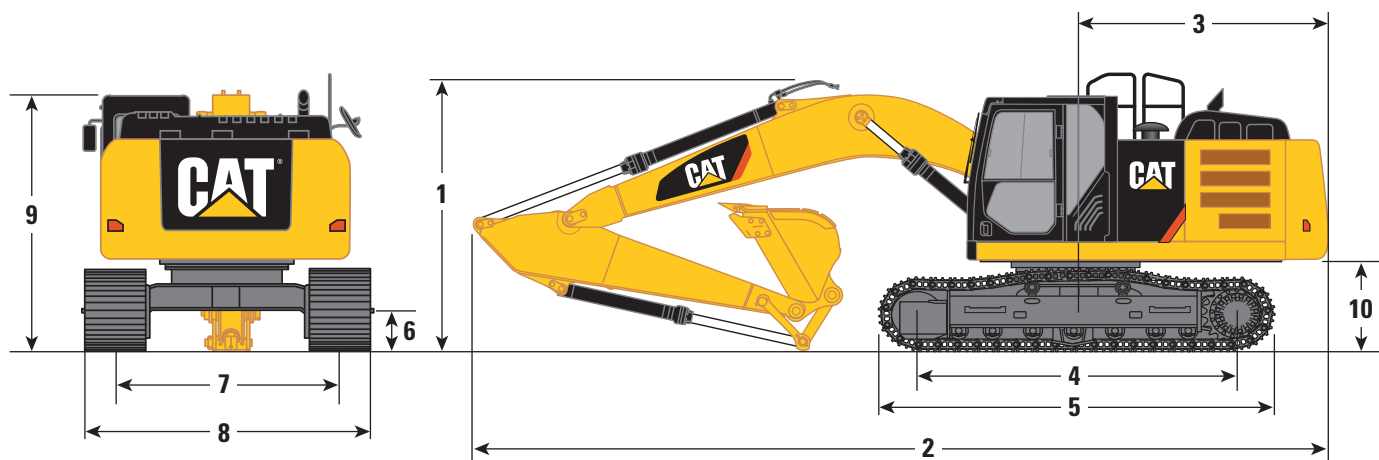
Standards

Brakes	ISO 10265 2008
Cab/FOGS	ISO 10262 1998

324E Hydraulic Excavator Specifications

Dimensions

All dimensions are approximate.



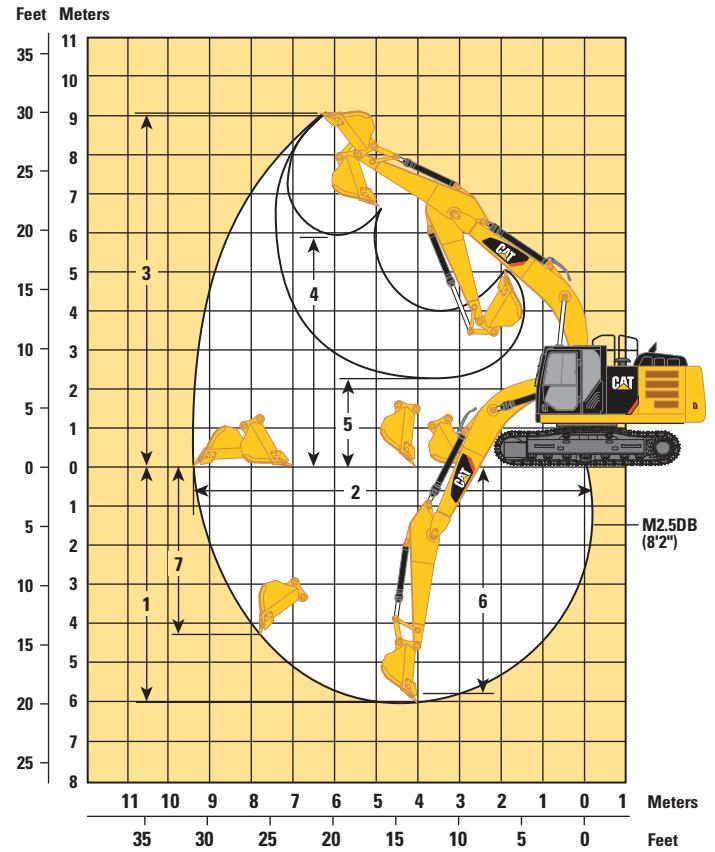
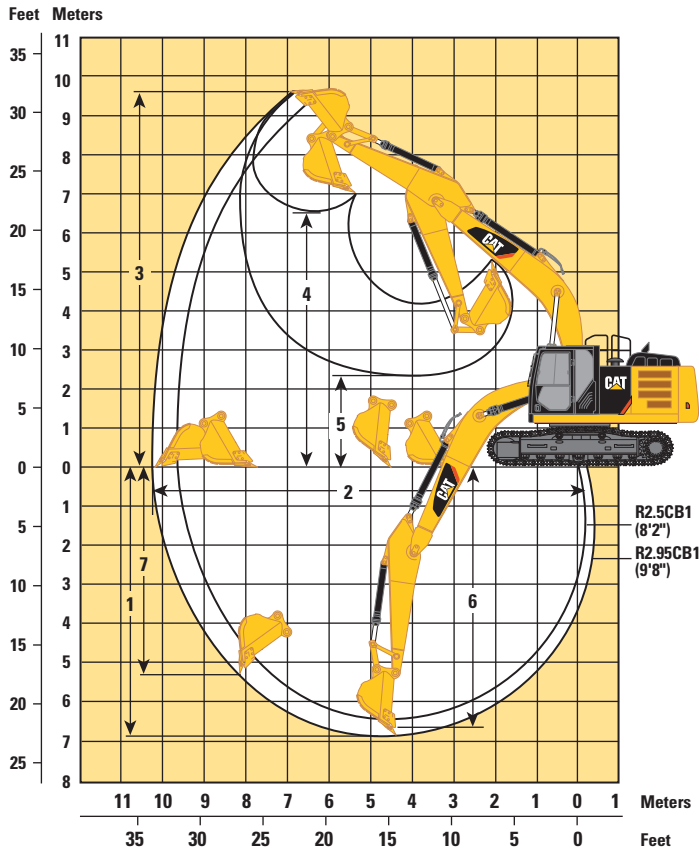
	HD Reach Booms 5.9 m (19'4")		Mass Boom 5.3 m (17'5")	Super Long Reach Boom 10.2 m (33'6")
Stick	R2.95CB1 (9'8")	R2.5CB1 (8'2")	M2.5DB (8'2")	Super Long Reach 7.85 m (25'9")
	mm (ft)	mm (ft)	mm (ft)	mm (ft)
1 Shipping Height*	3221 (10'7")	3410 (11'2")	3500 (11'6")	3229 (10'7")
Shipping Height with Guard Rail	3283 (10'9")	3283 (10'9")	3283 (10'9")	3283 (10'9")
2 Shipping Length	10 063 (33'0")	10 100 (33'2")	9480 (31'1")	14 352 (47'1")
3 Tail Swing Radius	2947 (9'8")	2947 (9'8")	2947 (9'8")	2947 (9'8")
4 Length to Center of Rollers				
Long Undercarriage	3830 (12'7")	3830 (12'7")	3830 (12'7")	3830 (12'7")
5 Track Length				
Long Undercarriage	4640 (15'3")	4640 (15'3")	4640 (15'3")	4640 (15'3")
6 Ground Clearance				
Long Undercarriage	440 (1'5")	440 (1'5")	440 (1'5")	440 (1'5")
7 Track Gauge				
Long Undercarriage	2590 (8'6")	2590 (8'6")	2590 (8'6")	2590 (8'6")
8 Transport Width				
Long Undercarriage – 600 mm (24") Shoes	3190 (10'6")	3190 (10'6")	3190 (10'6")	3190 (10'6")
Long Undercarriage – 700 mm (28") Shoes	3290 (10'10")	3290 (10'10")	3290 (10'10")	3290 (10'10")
Long Undercarriage – 790 mm (31") Shoes	3380 (11'1")	3380 (11'1")	3380 (11'1")	3380 (11'1")
9 Cab Height	2996 (9'10")	2996 (9'10")	2996 (9'10")	2996 (9'10")
Cab Height with Top Guard	3190 (10'6")	3190 (10'6")	3190 (10'6")	3190 (10'6")
10 Counterweight Clearance**	1088 (3'7")	1088 (3'7")	1088 (3'7")	1088 (3'7")

*Including shoe lug height.

**Without shoe lug height.

Working Ranges

All dimensions are approximate.

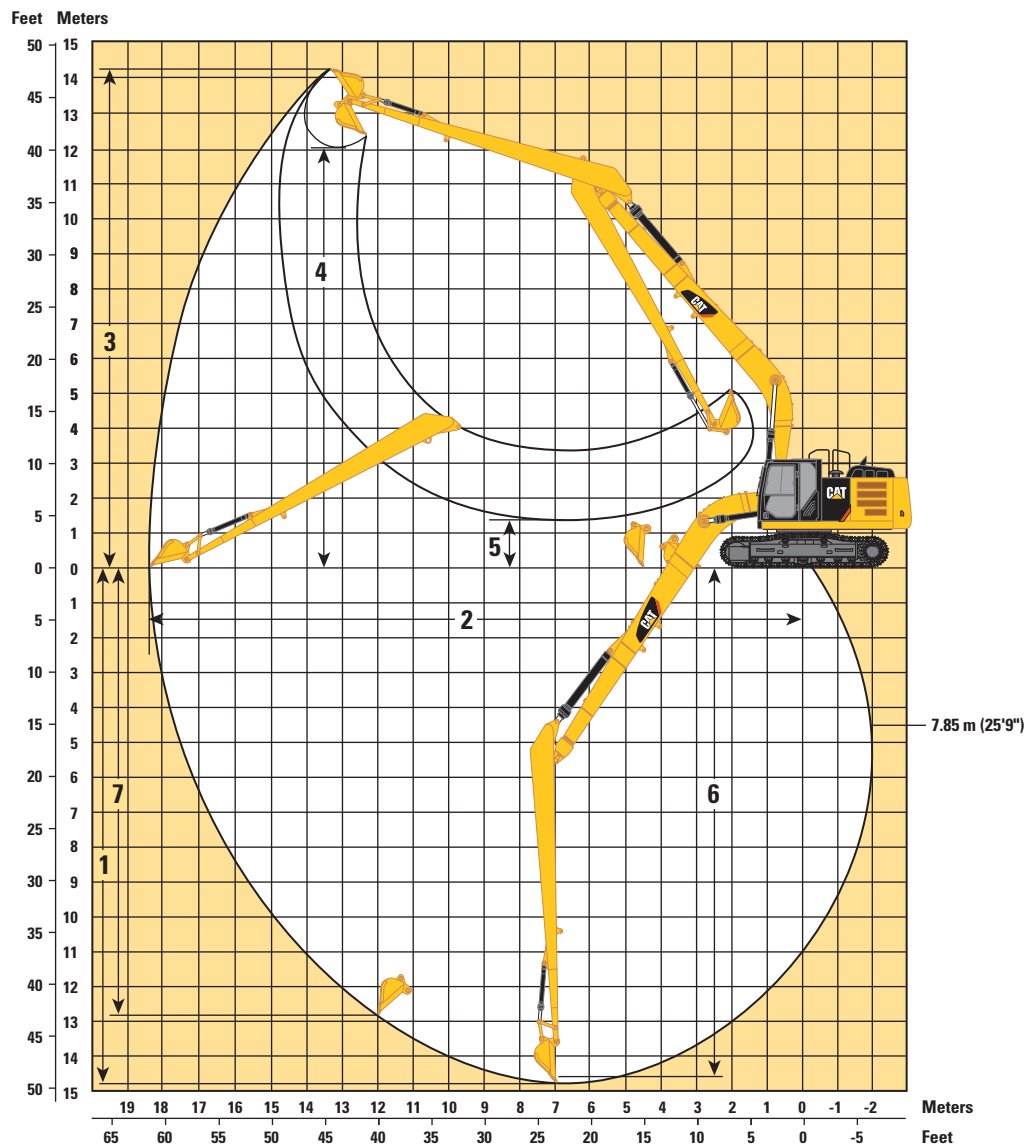


Stick	HD Reach Booms 5.9 m (19'4")		Mass Boom 5.3 m (17'5")
	R2.95CB1 (9'8")	R2.5CB1 (8'2")	M2.5DB (8'2")
	mm (ft)	mm (ft)	mm (ft)
1 Maximum Digging Depth	6810 (22'4")	6360 (20'10")	6000 (19'8")
2 Maximum Reach at Ground Level	10 110 (33'2")	9690 (31'9")	9200 (30'2")
3 Maximum Cutting Height	9690 (31'9")	9490 (31'2")	9060 (29'9")
4 Maximum Loading Height	7450 (24'5")	6440 (21'2")	5890 (19'4")
5 Minimum Loading Height	2410 (7'11")	2860 (9'5")	2280 (7'6")
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6640 (21'9")	6160 (20'3")	5810 (19'1")
7 Maximum Vertical Wall Digging Depth	5300 (17'5")	4870 (16'0")	4250 (13'11")

324E Hydraulic Excavator Specifications

Working Ranges

All dimensions are approximate.



Super Long Reach Boom
10.2 m (33'6")

Super Long Reach Stick
7.85 m (25'9")

mm (ft)

1 Maximum Digging Depth	14 730 (48'4")
2 Maximum Reach at Ground Level	18 430 (60'6")
3 Maximum Cutting Height	14 260 (46'9")
4 Maximum Loading Height	12 030 (39'6")
5 Minimum Loading Height	1370 (4'6")
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	14 640 (48'0")
7 Maximum Vertical Wall Digging Depth	12 800 (42'0")

Operating Weight and Ground Pressure

	790 mm (31") Triple Grouser Shoes		700 mm (28") Triple Grouser Shoes		600 mm (24") Double Grouser Shoes	
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
Long Undercarriage						
HD Reach Boom – 5.9 m (19'4")						
R2.95CB1 HD (9'8")	25 887 (57,071)	42.0 (6.08)	25 627 (56,498)	46.9 (6.80)	25 187 (55,528)	53.7 (7.79)
R2.5CB1 HD (8'2")	25 827 (56,939)	41.9 (6.07)	25 567 (56,366)	46.8 (6.78)	25 127 (55,395)	53.6 (7.78)
Mass Boom – 5.3 m (17'5")						
M2.5DB (8'2")	26 307 (57,997)	42.6 (6.18)	26 047 (57,424)	47.6 (6.91)	25 607 (56,454)	54.6 (7.92)
Super Long Reach Boom – 10.2 m (33'6")						
7.85 m (25'9") (SLR)	29 479 (64,990)	47.8 (6.93)	29 219 (64,417)	53.4 (7.75)	28 779 (63,447)	61.4 (8.91)

Major Component Weights

	kg	lb
Base Machine (with boom cylinder, without counterweight, front linkage and track)		
Long Undercarriage	14 300	31,530
Counterweight		
4.0 mt (4.4 t)	4020	8,860
6.75 mt (7.4 t) Super Long Reach model	6750	14,880
Boom (includes lines, pins and stick cylinder)		
HD Reach Boom – 5.9 m (19'4")	1740	3,840
Mass Boom – 5.3 m (17'5")	1850	4,080
Super Long Reach – 10.2 m (33'6")	2800	6,170
Stick (includes lines, pins and bucket cylinder)		
R2.95CB1 (9'8") HD	840	1,850
R2.5CB1 (8'2") HD	780	1,720
M2.5DB (8'2")	970	2,140
Super Long Reach	1400	3,090
Track Shoes (Long/per two tracks)		
600 mm (24") Double Grouser	3220	7,100
700 mm (28") Triple Grouser	3680	8,120
790 mm (31") Triple Grouser	3940	8,680
Buckets		
CB1 1200HD – 1.33 m ³ (1.74 yd ³)	1047	2,309
CB1 1350HD – 1.54 m ³ (2.01 yd ³)	1096	2,416
DB 1500GD – 1.87 m ³ (2.45 yd ³)	1227	2,705
A 1145DC – 0.6 m ³ (0.78 yd ³)	288.9	637

All weights are rounded up to nearest 10 kg and lb except for buckets. Kg and lb were rounded up separately so some of the kg and lb do not match.

Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

324E Hydraulic Excavator Specifications

Bucket and Stick Forces

	HD Reach Booms 5.9 m (19'4")		Mass Boom 5.3 m (17'5")	Super Long Reach Boom 10.2 m (33'6")
	CB-Family Bucket		DB-Family Bucket	A-Family Bucket
Stick	R2.95CB1 (9'8")	R2.5CB1 (8'2")	M2.5DB (8'2")	Super Long Reach 7.85 m (25'9")
	kN (lbf)	kN (lbf)	kN (lbf)	kN (lbf)
General Duty				
Bucket Digging Force (SAE)	138 (31,024)	138 (31,024)	188 (42,300)	—
Stick Digging Force (SAE)	113 (25,403)	131 (29,450)	133 (29,900)	—
Heavy Duty				
Bucket Digging Force (SAE)	136 (30,574)	136 (30,574)	185 (41,600)	—
Stick Digging Force (SAE)	113 (25,403)	131 (29,450)	132 (29,700)	—
Severe Duty				
Bucket Digging Force (SAE)	147 (33,000)	147 (33,000)	—	—
Stick Digging Force (SAE)	117 (26,300)	136 (30,600)	—	—

HD Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 5.9 m (19'4")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – R2.95CB1 (9'8")

Shoes – 790 mm (31") triple grouser with step

Heavy Lift Mode – On

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft
													
7.5 m 25.0 ft	kg lb						*7100 *14,650	*7100 *14,650			*5900 *13,050	*5900 *13,050	6.42 20.71
6.0 m 20.0 ft	kg lb						*7200 *15,800	7200 15,500	*5650	5000	*5600 *12,350	5000 11,100	7.51 24.46
4.5 m 15.0 ft	kg lb				*9400 *20,250	*9400 *20,250	*8050 *17,450	7000 15,000	7350 15,800	4950 10,600	*5600 *12,300	4300 9,450	8.18 26.76
3.0 m 10.0 ft	kg lb				*12 050 *25,900	10 200 21,950	*9250 *20,050	6650 14,350	7200 15,450	4800 10,300	*5800 *12,750	3950 8,650	8.53 27.97
1.5 m 5.0 ft	kg lb				*14 350 *30,950	9550 20,550	9850 21,150	6350 13,700	7050 15,100	4650 9,950	5750 12,600	3800 8,350	8.61 28.25
Ground Line	kg lb				15 350 32,900	9250 19,850	9600 20,650	6150 13,200	6900 14,850	4500 9,750	5850 12,850	3850 8,500	8.42 27.62
-1.5 m -5.0 ft	kg lb		*11 050 *25,100	*11 050 *25,100	15 250 32,650	9150 19,650	9500 20,400	6050 13,000	6850 14,750	4500 9,650	6350 13,950	4150 9,150	7.94 26.01
-3.0 m -10.0 ft	kg lb		*18 050 *41,150	*18 050 39,350	*14 250 *30,800	9200 19,800	9550 20,500	6100 13,100			7450 16,550	4850 10,750	7.11 23.22
-4.5 m -15.0 ft	kg lb		*15 850 *33,950	*15 850 *33,950	*11 650 *24,850	9450 20,350					*8700 *19,100	6600 14,850	5.78 18.70

Boom – 5.9 m (19'4")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – R2.95CB1 (9'8")

Shoes – 700 mm (28") triple grouser

Heavy Lift Mode – On

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft
													
7.5 m 25.0 ft	kg lb						*7100 *14,650	*7100 *14,650			*5900 *13,050	*5900 *13,050	6.42 20.71
6.0 m 20.0 ft	kg lb						*7200 *15,800	7150 15,350	*5650	4950	*5600 *12,350	4950 11,000	7.51 24.46
4.5 m 15.0 ft	kg lb				*9400 *20,250	*9400 *20,250	*8050 *17,450	6900 14,900	7300 15,650	4900 10,500	*5600 *12,300	4250 9,400	8.18 26.76
3.0 m 10.0 ft	kg lb				*12 050 *25,900	10 100 21,750	*9250 *20,050	6600 14,200	7150 15,300	4750 10,200	*5800 *12,750	3900 8,550	8.53 27.97
1.5 m 5.0 ft	kg lb				*14 350 *30,950	9450 20,400	9750 20,950	6300 13,550	6950 14,950	4600 9,900	5650 12,450	3750 8,250	8.61 28.25
Ground Line	kg lb				15 200 32,550	9150 19,650	9500 20,450	6100 13,100	6850 14,700	4500 9,650	5800 12,750	3800 8,400	8.42 27.62
-1.5 m -5.0 ft	kg lb		*11 050 *25,100	*11 050 *25,100	15 100 32,350	9050 19,450	9400 20,200	6000 12,900	6800 14,600	4450 9,550	6250 13,800	4100 9,050	7.94 26.01
-3.0 m -10.0 ft	kg lb		*18 050 *41,150	*18 050 38,950	*14 250 *30,800	9150 19,650	9450 20,300	6000 12,950			7400 16,350	4800 10,600	7.11 23.22
-4.5 m -15.0 ft	kg lb		*15 850 *33,950	*15 850 *33,950	*11 650 *24,850	9350 20,200					*8700 *19,100	6550 14,750	5.78 18.70

*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.

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

324E Hydraulic Excavator Specifications

HD Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 5.9 m (19'4")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – R2.5CB1 (8'2")

Shoes – 790 mm (31") triple grouser with step

Heavy Lift Mode – On

		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				
														m ft
7.5 m 25.0 ft	kg lb											*7950 *17,550	7400 16,900	5.86 18.82
6.0 m 20.0 ft	kg lb							*7800 *17,100	7150 15,300			*7600 *16,800	5500 12,250	7.04 22.89
4.5 m 15.0 ft	kg lb					*10 300 *22,150	*10 300 *22,150	*8600 *18,650	6900 14,850	7300 15,700	4900 10,500	6950 15,350	4650 10,300	7.75 25.34
3.0 m 10.0 ft	kg lb					*12 900 *27,700	10 000 21,600	*9700 *21,050	6600 14,200	7200 15,400	4800 10,250	6350 14,000	4250 9,350	8.12 26.62
1.5 m 5.0 ft	kg lb					*14 900 *32,150	9450 20,350	9800 21,100	6300 13,600	7050 15,100	4650 10,000	6150 13,550	4100 9,000	8.20 26.91
Ground Line	kg lb					15 300 32,850	9200 19,800	9600 20,650	6150 13,250	6950 14,900	4550 9,800	6300 13,900	4200 9,200	8.00 26.25
-1.5 m -5.0 ft	kg lb			*11 400 *26,000	*11 400 *26,000	*15 150 32,750	9200 19,750	9550 20,500	6100 13,100			6950 15,250	4550 10,000	7.49 24.55
-3.0 m -10.0 ft	kg lb			*18 350 *39,850	*18 350 39,750	*13 650 *29,500	9300 20,050	9650 20,700	6150 13,300			8400 18,600	5450 12,050	6.61 21.56
-4.5 m -15.0 ft	kg lb					*10 350 *21,900	9650 20,750					*8800 *19,300	7950 17,950	5.15 16.59

Boom – 5.9 m (19'4")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – R2.5CB1 (8'2")

Shoes – 700 mm (28") triple grouser

Heavy Lift Mode – On

		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				
														m ft
7.5 m 25.0 ft	kg lb											*7950 *17,550	7350 16,750	5.86 18.82
6.0 m 20.0 ft	kg lb							*7800 *17,100	7050 15,200			*7600 *16,800	5450 12,150	7.04 22.89
4.5 m 15.0 ft	kg lb					*10 300 *22,150	*10 300 *22,150	*8600 *18,650	6850 14,750	7250 15,550	4850 10,400	6850 15,200	4600 10,200	7.75 25.34
3.0 m 10.0 ft	kg lb					*12 900 *27,700	9900 21,400	*9700 *21,050	6550 14,100	7100 15,300	4750 10,150	6300 13,850	4200 9,250	8.12 26.62
1.5 m 5.0 ft	kg lb					*14 900 *32,150	9350 20,150	9700 20,900	6250 13,500	6950 14,950	4600 9,900	6100 13,450	4050 8,900	8.20 26.91
Ground Line	kg lb					15 200 32,500	9150 19,650	9500 20,450	6100 13,100	6850 14,750	4500 9,700	6250 13,800	4150 9,100	8.00 26.25
-1.5 m -5.0 ft	kg lb			*11 400 *26,000	*11 400 *26,000	*15 150 32,450	9100 19,550	9450 20,300	6050 13,000			6850 15,100	4500 9,900	7.49 24.55
-3.0 m -10.0 ft	kg lb			*18 350 *39,850	*18 350 39,400	*13 650 *29,500	9250 19,850	9550 20,500	6100 13,150			8300 18,400	5400 11,950	6.61 21.56
-4.5 m -15.0 ft	kg lb					*10 350 *21,900	9550 20,550					*8800 *19,300	7850 17,800	5.15 16.59

*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.

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

Mass Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 5.3 m (17'5")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – M2.5DB (8'2")

Shoes – 790 mm (31") triple grouser with step

Heavy Lift Mode – On

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				
													m ft
7.5 m 25.0 ft	kg lb										*7900 *17,600	*7900 *17,600	5.01 15.96
6.0 m 20.0 ft	kg lb						*8250 *18,100	7000 14,950			*7200 *15,850	6350 14,200	6.35 20.61
4.5 m 15.0 ft	kg lb				*9850 *21,300	*9850 *21,300	*8650 *18,850	6850 14,700			*7050 *15,550	5150 11,400	7.13 23.30
3.0 m 10.0 ft	kg lb				*12 200 *26,350	10 150 21,850	*9650 *20,900	6550 14,100	7050	4650	7000 15,450	4600 10,150	7.54 24.70
1.5 m 5.0 ft	kg lb				*14 400 *31,100	9500 20,450	9800 21,000	6250 13,500	6950 14,900	4550 9,750	6750 14,900	4450 9,750	7.62 25.01
Ground Line	kg lb				15 350 32,850	9200 19,750	9550 20,550	6050 13,050			7000 15,400	4550 10,000	7.41 24.30
-1.5 m -5.0 ft	kg lb		*17 100 *39,050	*17 100 38,800	*15 050 *32,550	9100 19,600	9500 20,400	6000 12,950			7800 17,250	5050 11,100	6.85 22.44
-3.0 m -10.0 ft	kg lb		*18 400 *39,750	*18 400 39,550	*13 200 *28,400	9250 19,900					*9550 *21,050	6350 14,100	5.87 19.12

Boom – 5.3 m (17'5")

Counterweight – 4.0 mt (4.4 t)

Bucket – None

Stick – M2.5DB (8'2")

Shoes – 700 mm (28") triple grouser

Heavy Lift Mode – On

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				
													m ft
7.5 m 25.0 ft	kg lb										*7900 *17,600	*7900 *17,600	5.01 15.96
6.0 m 20.0 ft	kg lb						*8250 *18,100	6950 14,850			*7200 *15,850	6300 14,050	6.35 20.61
4.5 m 15.0 ft	kg lb				*9850 *21,300	*9850 *21,300	*8650 *18,850	6800 14,550			*7050 *15,550	5100 11,300	7.13 23.30
3.0 m 10.0 ft	kg lb				*12 200 *26,350	10 050 21,650	*9650 *20,900	6500 13,950	7000	4600	6950 15,300	4550 10,050	7.54 24.70
1.5 m 5.0 ft	kg lb				*14 400 *31,100	9400 20,300	9700 20,800	6200 13,350	6850 14,750	4500 9,650	6700 14,750	4400 9,650	7.62 25.01
Ground Line	kg lb				15 200 32,550	9100 19,550	9450 20,350	6000 12,950			6900 15,200	4500 9,900	7.41 24.30
-1.5 m -5.0 ft	kg lb		*17 100 *39,050	*17 100 38,450	*15 050 *32,350	9050 19,400	9400 20,200	5950 12,800			7750 17,100	5000 11,000	6.85 22.44
-3.0 m -10.0 ft	kg lb		*18 400 *39,750	18 350 39,200	*13 200 *28,400	9150 19,700					*9550 *21,050	6300 13,950	5.87 19.12

*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.

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

324E Hydraulic Excavator Specifications

Super Long Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 10.2 m (33'6")

Counterweight – 6.75 mt (7.4 t)

Bucket – None

Stick – 7.85 m (25'9") Super Long Reach

Shoes – 790 mm (31") triple grouser with step

Heavy Lift Mode – On

		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		9.0 m/30.0 ft				m ft	
																	
12.0 m 40.0 ft	kg lb													*1350 *2,950	*1350 *2,950	13.94 45.26	
10.5 m 35.0 ft	kg lb													*1300 *2,850	*1300 *2,850	14.93 48.66	
9.0 m 30.0 ft	kg lb													*1250 *2,750	*1250 *2,750	15.72 51.34	
7.5 m 25.0 ft	kg lb													*1250 *2,750	*1250 *2,750	16.32 53.42	
6.0 m 20.0 ft	kg lb													*1250 *2,750	*1250 *2,750	16.78 54.96	
4.5 m 15.0 ft	kg lb													*1300 *2,800	*1300 *2,800	17.08 56.01	
3.0 m 10.0 ft	kg lb			*4850	*4850									*3650 *7,900	*3650 *7,900	1300 2,850	17.25 56.59
1.5 m 5.0 ft	kg lb			*1550 *3,650	*1550 *3,650	*5500 *12,950	*5500 *12,950	*6500 *13,950	*6500 *13,950	*5050 *10,850	4950 10,700	*4200 *9,050	3850 8,300	*1350 *3,000	1250 2,750	17.29 56.73	
Ground Line	kg lb			*1650 *3,700	*1650 *3,700	*3650 *8,400	*3650 *8,400	*7550 *16,300	5950 12,800	*5750 *12,400	4500 9,650	*4700 *10,150	3550 7,600	*1450 *3,150	1250 2,700	17.20 56.42	
-1.5 m -5.0 ft	kg lb	*1600 *3,500	*1600 *3,500	*2100 *4,700	*2100 *4,700	*3550 *8,000	*3550 *8,000	*6600 *15,100	5450 11,700	*6350 *13,700	4100 8,850	*5100 *11,050	3250 7,000	*1550 *3,350	1250 2,700	16.97 55.66	
-3.0 m -10.0 ft	kg lb	*2200 *4,850	*2200 *4,850	*2700 *6,000	*2700 *6,000	*3850 *8,700	*3850 *8,700	*6250 *14,250	5150 11,100	6450 13,900	3900 8,350	5050 10,850	3050 6,600	*1650 *3,650	1250 2,750	16.60 54.42	
-4.5 m -15.0 ft	kg lb	*2800 *6,200	*2800 *6,200	*3300 *7,400	*3300 *7,400	*4400 *9,950	*4400 *9,950	*6550 *14,900	5050 10,800	6300 13,550	3750 8,050	4900 10,550	2950 6,300	*1850 *4,000	1300 2,850	16.09 52.68	
-6.0 m -20.0 ft	kg lb	*3400 *7,600	*3400 *7,600	*4000 *8,950	*4000 *8,950	*5100 *11,500	*5100 *11,500	*7200 *16,400	5000 10,750	6250 13,400	3700 7,900	4850 10,400	2900 6,200	*2050 *4,550	1400 3,050	15.41 50.38	
-7.5 m -25.0 ft	kg lb	*4100 *9,150	*4100 *9,150	*4750 *10,650	*4750 *10,650	*5950 *13,450	*5950 *13,450	*8200 *18,650	5050 10,900	6250 13,450	3700 7,950	4850 10,400	2900 6,200	*2400 *5,300	1550 3,400	14.54 47.44	
-9.0 m -30.0 ft	kg lb	*4800 *10,800	*4800 *10,800	*5600 *12,600	*5600 *12,600	*7000 *15,800	*7000 *15,800	*8550 *18,400	5200 11,200	6350 13,650	3800 8,150	4900 10,550	2950 6,300	*2900 *6,450	1750 3,900	13.45 43.73	
-10.5 m -35.0 ft	kg lb	*5600 *12,600	*5600 *12,600	*6600 *14,850	*6600 *14,850	*8250 *18,800	*8250 18,100	*7900 *16,950	5400 11,650	*6400 *13,700	3900 8,450	5000 10,850	3050 6,600	3450 7,700	2100 4,750	12.07 39.02	
-12.0 m -40.0 ft	kg lb			*7750 *17,500	*7750 *17,500	*8800 *18,650	*8800 *18,650	*6900 *14,600	5700 12,350	*5600 *11,800	4150 9,000	*4600 *9,600	3250 7,050	*3800 *8,400	2750 6,350	10.29 32.89	

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

Super Long Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 10.2 m (33'6")

Counterweight – 6.75 mt (7.4 t)

Bucket – None

Stick – 7.85 m (25'9") Super Long Reach

Shoes – 790 mm (31") triple grouser with step

Heavy Lift Mode – On

		10.5 m/35.0 ft		12.0 m/40.0 ft		13.5 m/45.0 ft		15.0 m/50.0 ft		16.5 m/55.0 ft				m ft
														
12.0 m 40.0 ft	kg lb					*1800 *3,150	*1800 *3,150					*1350 *2,950	*1350 *2,950	13.94 45.26
10.5 m 35.0 ft	kg lb					*2200 *4,900	*2200 *4,900					*1300 *2,850	*1300 *2,850	14.93 48.66
9.0 m 30.0 ft	kg lb					*2250 *4,950	*2250 *4,950	*2050 *3,800	2000 *3,800			*1250 *2,750	*1250 *2,750	15.72 51.34
7.5 m 25.0 ft	kg lb					*2350 *5,100	*2350 *5,100	*2350 *5,100	2000 4,200			*1250 *2,750	*1250 *2,750	16.32 53.42
6.0 m 20.0 ft	kg lb			*5,450 *5,450		*2450 *5,350	2400 5,100	*2450 *5,300	1950 4,100	*1650 1550		*1250 *2,750	*1250 *2,750	16.78 54.96
4.5 m 15.0 ft	kg lb			*2750 *5,950	*2750 *5,950	*2600 *5,700	2300 4,900	*2550 *5,550	1850 3,950	*2050 *3,800	1500 3,150	*1300 *2,800	*1300 *2,800	17.08 56.01
3.0 m 10.0 ft	kg lb	*3250 *7,050	*3250 *7,050	*3000 *6,500	2650 5,700	*2800 *6,100	2150 4,650	*2650 *5,800	1750 3,750	2350 *4,450	1450 3,050	*1300 *2,900	1300 2,850	17.25 56.59
1.5 m 5.0 ft	kg lb	*3650 *7,900	3050 6,600	*3250 *7,100	2500 5,350	*3000 *6,500	2050 4,350	2700 5,750	1700 3,600	2300 *4,800	1400 2,950	*1350 *3,000	1250 2,750	17.29 56.73
Ground Line	kg lb	*4000 *8,650	2850 6,100	*3550 *7,650	2350 5,000	3100 6,600	1950 4,100	2600 5,600	1600 3,400	2250 4,750	1350 2,850	*1450 *3,150	1250 2,700	17.20 56.42
-1.5 m -5.0 ft	kg lb	4250 9,150	2650 5,700	3500 7,550	2200 4,700	2950 6,350	1800 3,900	2550 5,400	1550 3,250	2200 *4,200	1300 2,750	*1550 *3,350	1250 2,700	16.97 55.66
-3.0 m -10.0 ft	kg lb	4100 8,800	2500 5,350	3400 7,300	2050 4,450	2900 6,200	1750 3,700	2500 5,300	1500 3,150	*1900 1250		*1650 *3,650	1250 2,750	16.60 54.42
-4.5 m -15.0 ft	kg lb	4000 8,550	2400 5,150	3300 7,150	2000 4,250	2850 6,050	1700 3,600	2450 5,250	1450 3,100			*1850 *4,000	1300 2,850	16.09 52.68
-6.0 m -20.0 ft	kg lb	3950 8,450	2350 5,050	3300 7,050	1950 4,200	2800 6,000	1650 3,550	2450 *5,200	1450 3,100			*2050 *4,550	1400 3,050	15.41 50.38
-7.5 m -25.0 ft	kg lb	3900 8,450	2350 5,050	3300 7,050	1950 4,200	2800 6,050	1700 3,600					*2400 *5,300	1550 3,400	14.54 47.44
-9.0 m -30.0 ft	kg lb	3950 8,550	2400 5,150	3350 7,200	2000 4,300							*2900 6,450	1750 3,900	13.45 43.73
-10.5 m -35.0 ft	kg lb	4100 8,850	2500 5,400	3450	2150							3450 7,700	2100 4,750	12.07 39.02
-12.0 m -40.0 ft	kg lb											*3800 *8,400	2750 6,350	10.29 32.89

*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.

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

324E Hydraulic Excavator Specifications

Super Long Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 10.2 m (33'6")

Counterweight – 6.75 mt (7.4 t)

Bucket – None

Stick – 7.85 m (25'9") Super Long Reach

Shoes – 700 mm (28") triple grouser

Heavy Lift Mode – On

		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		9.0 m/30.0 ft				m ft	
																	
12.0 m 40.0 ft	kg lb														*1350 *2,950	*1350 *2,950	13.94 45.26
10.5 m 35.0 ft	kg lb														*1300 *2,850	*1300 *2,850	14.93 48.66
9.0 m 30.0 ft	kg lb														*1250 *2,750	*1250 *2,750	15.72 51.34
7.5 m 25.0 ft	kg lb														*1250 *2,750	*1250 *2,750	16.32 53.42
6.0 m 20.0 ft	kg lb														*1250 *2,750	*1250 *2,750	16.78 54.96
4.5 m 15.0 ft	kg lb														*1300 *2,800	*1300 *2,800	17.08 56.01
3.0 m 10.0 ft	kg lb			*4850	*4850							*3650 *7,900	*3650 *7,900		*1300 *2,900	1300 2,800	17.25 56.59
1.5 m 5.0 ft	kg lb			*1550 *3,650	*1550 *3,650	*5500 *12,950	*5500 *12,950	*6500 *13,950	*6500 *13,950	*5050 *10,850	4900 10,600	*4200 *9,050	3800 8,200		*1350 *3,000	1250 2,700	17.29 56.73
Ground Line	kg lb			*1650 *3,700	*1650 *3,700	*3650 *8,400	*3650 *8,400	*7550 *16,300	5850 12,650	*5750 *12,400	4450 9,550	*4700 *10,150	3500 7,500		*1450 *3,150	1200 2,650	17.20 56.42
-1.5 m -5.0 ft	kg lb	*1600 *3,500	*1600 *3,500	*2100 *4,700	*2100 *4,700	*3550 *8,000	*3550 *8,000	*6600 *15,100	5400 11,600	*6350 *13,700	4050 8,750	*5100 *11,050	3250 6,950		*1550 *3,350	1200 2,650	16.97 55.66
-3.0 m -10.0 ft	kg lb	*2200 *4,850	*2200 *4,850	*2700 *6,000	*2700 *6,000	*3850 *8,700	*3850 *8,700	*6250 *14,250	5100 11,000	6400 13,750	3850 8,250	5000 10,700	3050 6,500		*1650 *3,650	1250 2,700	16.60 54.42
-4.5 m -15.0 ft	kg lb	*2800 *6,200	*2800 *6,200	*3300 *7,400	*3300 *7,400	*4400 *9,950	*4400 *9,950	*6550 *14,900	4950 10,700	6250 13,400	3700 7,950	4850 10,450	2900 6,250		*1850 *4,000	1300 2,800	16.09 52.68
-6.0 m -20.0 ft	kg lb	*3400 *7,600	*3400 *7,600	*4000 *8,950	*4000 *8,950	*5100 *11,500	*5100 *11,500	*7200 *16,400	4950 10,650	6150 13,300	3650 7,800	4800 10,300	2850 6,100		*2050 *4,550	1350 3,000	15.41 50.38
-7.5 m -25.0 ft	kg lb	*4100 *9,150	*4100 *9,150	*4750 *10,650	*4750 *10,650	*5950 *13,450	*5950 *13,450	*8200 18,600	5000 10,800	6200 13,300	3650 7,850	4800 10,300	2850 6,100		*2400 *5,300	1500 3,350	14.54 47.44
-9.0 m -30.0 ft	kg lb	*4800 *10,800	*4800 *10,800	*5600 *12,600	*5600 *12,600	*7000 *15,800	*7000 *15,800	*8550 *18,400	5150 11,100	6300 13,500	3750 8,050	4850 10,450	2900 6,250		2850 6,400	1750 3,850	13.45 43.73
-10.5 m -35.0 ft	kg lb	*5600 *12,600	*5600 *12,600	*6600 *14,850	*6600 *14,850	*8250 *18,800	*8250 17,900	*7900 *16,950	5350 11,550	*6400 *13,700	3900 8,350	4950 10,750	3000 6,500		3400 7,650	2100 4,700	12.07 39.02
-12.0 m -40.0 ft	kg lb			*7750 *17,500	*7750 *17,500	*8800 *18,650	8750 *18,650	*6900 *14,600	5650 12,250	*5600 *11,800	4100 8,900	*4600 *9,600	3200 7,000		*3800 *8,400	2750 6,250	10.29 32.89

*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.

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

Super Long Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 10.2 m (33'6")

Counterweight – 6.75 mt (7.4 t)

Bucket – None

Stick – 7.85 m (25'9") Super Long Reach

Shoes – 700 mm (28") triple grouser

Heavy Lift Mode – On

		10.5 m/35.0 ft		12.0 m/40.0 ft		13.5 m/45.0 ft		15.0 m/50.0 ft		16.5 m/55.0 ft				m ft
12.0 m 40.0 ft	kg lb					*1800 *3,150	*1800 *3,150					*1350 *2,950	*1350 *2,950	13.94 45.26
10.5 m 35.0 ft	kg lb					*2200 *4,900	*2200 *4,900					*1300 *2,850	*1300 *2,850	14.93 48.66
9.0 m 30.0 ft	kg lb					*2250 *4,950	*2250 *4,950	*2050 *3,800	2000 *3,800			*1250 *2,750	*1250 *2,750	15.72 51.34
7.5 m 25.0 ft	kg lb					*2350 *5,100	*2350 *5,100	*2350 *5,100	1950 4,150			*1250 *2,750	*1250 *2,750	16.32 53.42
6.0 m 20.0 ft	kg lb			*5,450 *5,450		*2450 *5,350	2400 5,050	*2450 *5,300	1900 4,050	*1650 1500		*1250 *2,750	*1250 *2,750	16.78 54.96
4.5 m 15.0 ft	kg lb			*2750 *5,950	*2750 *5,950	*2600 *5,700	2250 4,850	*2550 *5,550	1850 3,900	*2050 *3,800	1500 3,100	*1300 *2,800	*1300 *2,800	17.08 56.01
3.0 m 10.0 ft	kg lb	*3250 *7,050	*3250 7,050	*3000 *6,500	2650 5,650	*2800 *6,100	2150 4,600	*2650 *5,800	1750 3,700	2300 *4,450	1450 3,000	*1300 *2,900	1300 2,800	17.25 56.59
1.5 m 5.0 ft	kg lb	*3650 *7,900	3050 6,550	*3250 *7,100	2450 5,300	*3000 *6,500	2000 4,300	2650 5,700	1650 3,550	2250 *4,800	1350 2,900	*1350 *3,000	1250 2,700	17.29 56.73
Ground Line	kg lb	*4000 *8,650	2800 6,050	*3550 *7,650	2300 4,950	3050 6,550	1900 4,050	2600 5,500	1600 3,350	2200 4,700	1300 2,800	*1450 *3,150	1200 2,650	17.20 56.42
-1.5 m -5.0 ft	kg lb	4200 9,050	2600 5,600	3500 7,500	2150 4,600	2950 6,300	1800 3,850	2500 5,350	1500 3,200	2150 *4,200	1300 2,700	*1550 *3,350	1200 2,650	16.97 55.66
-3.0 m -10.0 ft	kg lb	4050 8,700	2450 5,300	3350 7,250	2050 4,400	2850 6,100	1700 3,650	2450 5,250	1450 3,100	*1900 1250		*1650 *3,650	1250 2,700	16.60 54.42
-4.5 m -15.0 ft	kg lb	3950 8,450	2350 5,100	3300 7,050	1950 4,200	2800 6,000	1650 3,550	2400 5,200	1400 3,050			*1850 *4,000	1300 2,800	16.09 52.68
-6.0 m -20.0 ft	kg lb	3900 8,350	2300 4,950	3250 6,950	1950 4,150	2750 5,950	1650 3,500	2400 5,200	1400 3,050			*2050 *4,550	1350 3,000	15.41 50.38
-7.5 m -25.0 ft	kg lb	3900 8,350	2300 4,950	3250 7,000	1950 4,150	2800 6,000	1650 3,550					*2400 *5,300	1500 3,350	14.54 47.44
-9.0 m -30.0 ft	kg lb	3950 8,450	2350 5,050	3300 7,100	2000 4,250							2850 6,400	1750 3,850	13.45 43.73
-10.5 m -35.0 ft	kg lb	4050 8,750	2450 5,350	3400	2100							3400 7,650	2100 4,700	12.07 39.02
-12.0 m -40.0 ft	kg lb											*3800 *8,400	2750 6,250	10.29 32.89

*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.

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

324E Hydraulic Excavator Specifications

Work Tool Offering Guide*

Boom Type	HD Reach Boom		Mass Boom
Stick Size	R2.95 (9'8")	R2.5 (8'2")	M2.5 (8'2")
Hydraulic Hammer	H120E s H130E s	H120E s H130E s	H120E s H130E s
Multi-Processor	MP15 MP20	MP15 MP20	MP20
Scrap and Demolition Shear	S320B S325B** S340B***	S320B S325B S340B***	S320B S325B S340B***
Compactor (Vibratory Plate)	CVP110	CVP110	CVP110
Contractors' Grapple	G120B – G130B	G120B – G130B	G120B – G130B
Trash Grapple			
Thumbs			
Rippers			
Rakes			
Center-Lock Pin Grabber Coupler			
Dedicated Quick Coupler			

These work tools are available for the 324E.
Consult your Cat dealer for proper match.

*Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

**Pin-on only.

***Boom Mount.

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	Reach Boom (HD)		Super Long Reach	Mass Boom
		mm	in	m³	yd³	kg	lb	%	R2.95 HD (9'8")	R2.5 HD (8'2")	7.85 m (25'9")	M2.5 (8'2")
Without Quick Coupler												
Ditch Cleaning (DC)	A	1238	49	0.57	0.75	289	637	100%			⊖	
	A	770	30	0.69	0.90	377	830	100%			○	
General Duty (GDC)	CB	600	24	0.63	0.83	724	1,595	100%	●	●		
	CB	750	30	0.86	1.13	810	1,785	100%	●	●		
	CB	900	36	1.09	1.43	907	1,998	100%	●	●		
	CB	1050	42	1.34	1.75	979	2,157	100%	●	●		
	CB	1200	48	1.58	2.07	1070	2,358	100%	●	⊙		
	CB	1350	54	1.83	2.40	1164	2,564	100%	⊙	⊖		
	CB	1500	60	2.15	2.82	1270	2,800	100%	●	●		
Heavy Duty (HD)	CB	600	24	0.52	0.68	763	1,681	100%	●	●		
	CB	750	30	0.71	0.93	847	1,866	100%	●	●		
	CB	900	36	0.91	1.19	935	2,061	100%	●	●		
	CB	1050	42	1.12	1.46	1024	2,256	100%	●	●		
	CB	1200	48	1.33	1.74	1095	2,413	100%	●	●		
	CB	1350	54	1.54	2.02	1188	2,618	100%	●	⊙		
	DB	1500	60	1.88	2.46	1624	3,579	100%				⊖
Severe Duty (SD)	CB	600	24	0.52	0.68	810	1,784	90%	●	●		
	CB	750	30	0.71	0.93	902	1,987	90%	●	●		
	CB	900	36	0.91	1.19	999	2,202	90%	●	●		
	CB	1050	42	1.12	1.46	1097	2,417	90%	●	●		
	CB	1200	48	1.33	1.74	1178	2,595	90%	●	●		
Maximum load pin-on (payload + bucket)								kg	4405	4030	1145	4750
								lb	9,709	8,882	2,524	10,469
Maximum standard bucket width								mm	1372	1372	—	1676
								in	54	54	—	66

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 over the side 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)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

324E Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	Reach Boom (HD)		Mass Boom
		mm	in	m³	yd³	kg	lb	%	R2.95 HD (9'8")	R2.5 HD (8'2")	M2.5 (8'2")
With Center Lock Coupler											
General Duty (GDC)	CB	600	24	0.63	0.83	724	1,595	100%	●	●	
	CB	750	30	0.86	1.13	810	1,785	100%	●	●	
	CB	900	36	1.09	1.43	907	1,998	100%	●	●	
	CB	1050	42	1.34	1.75	979	2,157	100%	●	⊙	
	CB	1200	48	1.58	2.07	1070	2,358	100%	⊙	⊖	
	CB	1350	54	1.83	2.40	1164	2,564	100%	⊖	○	
Heavy Duty (HD)	CB	600	24	0.52	0.68	763	1,681	100%	●	●	
	CB	750	30	0.71	0.93	847	1,866	100%	●	●	
	CB	900	36	0.91	1.19	935	2,061	100%	●	●	
	CB	1050	42	1.12	1.46	1024	2,256	100%	●	●	
	CB	1200	48	1.33	1.74	1095	2,413	100%	●	⊙	
	CB	1350	54	1.54	2.02	1188	2,618	100%	⊙	⊖	
	DB	1500	60	1.88	2.46	1624	3,579	100%			○
Severe Duty (SD)	CB	600	24	0.52	0.68	810	1,784	90%	●	●	
	CB	750	30	0.71	0.93	902	1,987	90%	●	●	
	CB	900	36	0.91	1.19	999	2,202	90%	●	●	
	CB	1050	42	1.12	1.46	1097	2,417	90%	●	●	
	CB	1200	48	1.33	1.74	1178	2,595	90%	●	⊙	
Maximum load with coupler (payload + bucket)								kg	3900	3525	4192
								lb	8,597	7,770	9,239
Maximum standard bucket width with coupler								mm	1372	1372	1676
								in	54	54	66

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 over the side 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)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Standard Equipment

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

ENGINE

- C7.1 diesel engine
- Biodiesel capable
- Meets EPA Tier 4 (Interim) emission standards
- 2300 m (7,500') altitude capability
- Electric priming pump
- Automatic engine speed control
 - Standard, economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- Radial seal air filter
- Primary filter with water separator and water separator indicator switch
- Fuel differential indicator switch in fuel line
- 1×4 micron main filters
- 1×10 micron primary fuel line filter

HYDRAULIC SYSTEM

- Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump and circuit
- Capability of installing boom lowering control device and stick lowering check valve
- Capability of installing Cat Bio hydraulic oil

CAB

- Pressurized operator station with positive filtration
- Mirror package
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- Beverage holder
- Literature holder
- Radio with MP3 auxiliary audio port
- Two stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with warning, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Laminated glass front upper window and tempered other windows

UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

ELECTRICAL

- 80 amp alternator
- Circuit breaker
- Capability to electrically connect a beacon

LIGHTS

- Boom light with time delay
- Cab lights with time delay
- Exterior lights integrated into storage box

SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Openable skylight for emergency exit
- Rearview camera ready

324E Optional Equipment

Optional Equipment

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

ENGINE

- Electric refueling pump with auto shut off
- Starting kit, cold weather, -32° C (-26° F)
- Jump start receptacle
- Quick drains, engine and hydraulic oil

HYDRAULIC SYSTEM

- Control pattern quick-changer, two way
- Additional circuit
- Boom and stick lines
- High-pressure line
- Medium-pressure line
- Cat quick coupler line – high- and medium-pressure capable
- Quick coupler for high pressure
- Tool control system

CAB

- Cab hatch emergency exit
- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Sunscreen
- Windshield wiper, lower with washer
- AM/FM radio
- Air pre-filter
- Travel alarm
- Left foot switch
- Left pedal
- Straight travel pedal

UNDERCARRIAGE

- 600 mm (24") double grouser shoes
- 700 mm (28") triple grouser shoes
- 790 mm (31") triple grouser shoes
- Guard, full length for long FG undercarriage
- Guard, heavy-duty bottom
- Center track guiding guard
- Segmented (2 piece) track guiding guard

COUNTERWEIGHT

- 4.0 mt (4.4 t)
- 6.75 mt (7.4 t)

FRONT LINKAGE

- Bucket linkage, CB1 family without lifting eye
- Bucket linkage, DB/CB1 family with lifting eye
- Mass 5.3 m (17'4") boom
- Mass 2.5 m (8'2") stick
- SLR 10.2 m (33'6") boom
- SLR 7.85 m (25'9") stick

LIGHTS

- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay
- Halogen boom lights
- HID boom lights

SECURITY

- FOGS, bolt-on
- Guard, cab front, mesh
- Guard, vandalism
- Cat MSS (anti-theft device)
- Rearview camera

TECHNOLOGY

- Cat Grade Control Depth and Slope
- Product Link

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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