

# 324E

Hydraulic Excavator



## Engine

Engine Model	Cat® C7.1 ACERT™
Net Power – ISO 14396	151 kW (205 hp)

## Drive

Maximum Travel Speed	5.3 km/h
Maximum Drawbar Pull	226 kN

## Weight

Minimum Weight	25 127 kg
Maximum Weight	29 659 kg

## 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 European Union 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 Stage IIIB emission standards. Driven by customer input, Caterpillar's aftertreatment regeneration solution ensures the machine works as normal 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**

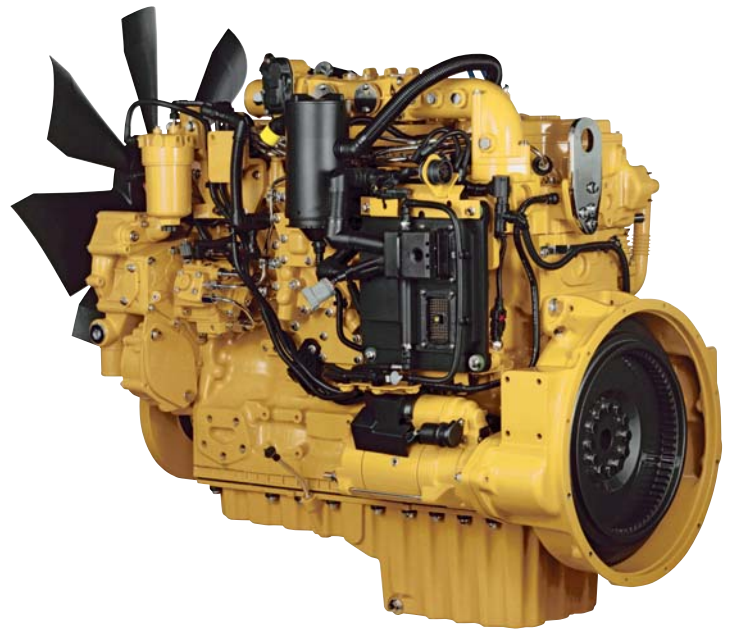
The C7.1 ACERT engine is equipped with an electronic-controlled high-pressure fuel system that includes an electric priming pump and three-layer fuel hoses to allow the use of biodiesel (meeting ASTM 6751 or EN 14214) up to B20 (biodiesel 20% mixture).

### **Cooling System**

The cooling system features side-by-side and tilt-out radiators, oil and air coolers for easy cleaning, and fan that 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. All seats include 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 a 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 7" LCD (Liquid Crystal Display) monitor that's 40% bigger than the previous model's with higher resolution for better visibility. 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.

## Power Supply

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. A specific 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.



# 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 highly efficient and simple 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.

## 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.

## SmartBoom™

SmartBoom reduces stress and vibrations transmitted to the machine and provides a more comfortable environment. It is particularly well suited for certain applications:

- **Rock scraping.** SmartBoom simplifies the task and allows the operator to concentrate on stick and bucket while the boom freely goes up and down without using pump flow.
- **Hammer work.** The front parts automatically follow the hammer while penetrating the rock. Blank shots or excessive force on the hammer are avoided, resulting in longer life for the hammer and the machine.

## Electric Boom Regeneration Valve

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

# Structures & Undercarriage

Built to work in rugged environments



## Frame

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

## Undercarriage

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

Heavy-duty track rollers, precision-forged carrier rollers, press-fit pin master joints (2), 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.



## Counterweights

The standard counterweight (3) weighs 4.0 mt. Super Long Reach (SLR) configurations come with a heavier 6.75 mt counterweight. Integrated links enable easy removal of the counterweight for maintenance or shipping.





# 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 five basic boom options: HD, ES, SLR, ME, and VA. Sticks match the boom descriptions and applications below:

**HD = Heavy Duty** – This boom is designed to balance reach, digging force, and bucket capacity. It covers the vast majority of applications such as digging, loading, trenching, and working with hydraulic tools.

**ES = Extreme Service** – This configuration will do multipurpose digging and loading, but its added weight makes it more durable and better suited for highly demanding applications. The bucket and tool matching guides help identify which conditions require the ES front.

**SLR = Super Long Reach** – This configuration offers reaches to over 18 m. 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.

**VA = Variable Angle** – This configuration offers superb flexibility and versatility in the working envelope. Boom position can be adjusted from 90° when fully retracted to 165° and fully extended. With full extension, the working range gives maximum dig depth, reach, and working height. Equally, when retracted, it can work closer to its tracks, increase lifting capacity, and work in confined areas.

# Work Tools

Dig, hammer, rip, and cut with confidence



An extensive range of Cat Work Tools for the 324E includes buckets, compactors, grapples, multi-processors, scrap and demolition shears, rippers, crushers, pulverizers, hammers, and shears. Each is designed to optimize the versatility and performance of your machine.

## CW Quick Couplers

Quick couplers allow one person to change work tools in seconds for maximum performance and flexibility on a job site. One machine can move rapidly from task to task, and a fleet of similarly equipped machines can share a common work tool inventory. The dedicated CW Series quick coupler enables a quick tool exchange while maintaining top machine performance. A lifting hook is added for maximum lift capacity.

The CW quick coupler can pick up any work tool and is equipped with a wedge-style locking system that fits the quick coupler tight to the tool hinges. Due to the tapered wedge design, there won't be any play during its entire life. Also, it is interchangeable with different machine classes. The CW is highly suitable for harsh applications such as demolition and quarries.

## Buckets

Cat buckets are designed as an integral part of the 324E system and feature new geometry for better performance. The leading edge has been pushed forward, resulting in more efficient filling and better operator control for greatly improved productivity. Wear coverage in the corners and side cutter and sidebar protector coverage are improved. All benefits are captured in a new bucket line with a new bucket naming convention.

## Four Durability Categories Suitable for Any Situation

Caterpillar offers four standard bucket categories for excavators. Each category is based on intended bucket durability when used in recommended application and material. Each bucket durability is available as pin-on or can be used with a Quick Coupler. Red areas on bucket images illustrate additional protection against wear as it increases across each category.

### General Duty (GD)

GD buckets are for digging in low-impact, low-abrasion material such as dirt, loam, and mixed compositions of dirt and fine gravel.

### Heavy Duty (HD)

The most popular bucket style, HD buckets are a good starting point when digging conditions are not well known like a wide range of impact and abrasion conditions that include mixed dirt, clay, and rock.

### Severe Duty (SD)

SD buckets are for higher abrasion conditions such as well shot granite and caliche.

### Extreme Duty (XD)

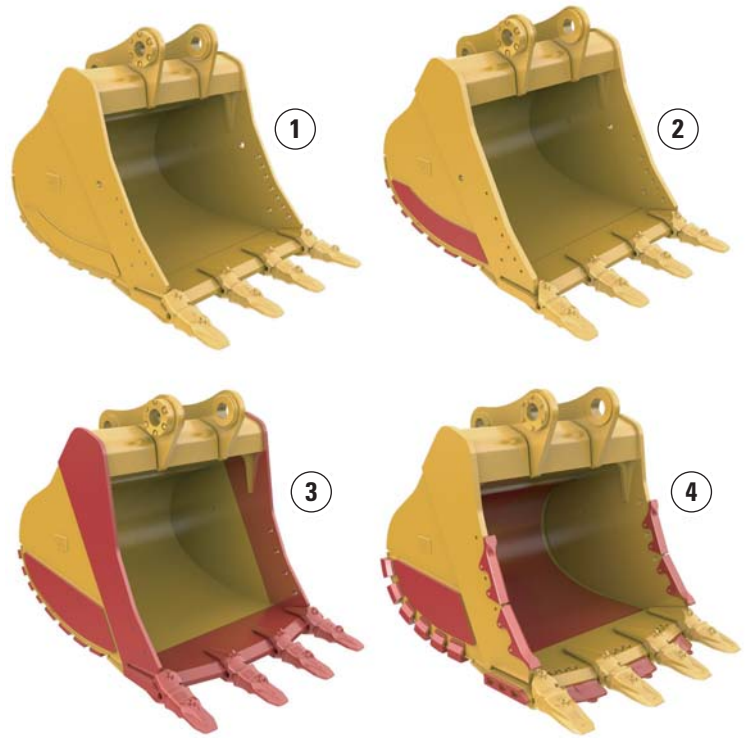
XD buckets are the new standard for high-abrasion conditions, including high quartzite granite.

### Special Buckets

Special buckets are available for the 324E on request.

### Comprehensive Product Support

All Cat Work Tools are backed up by a world-wide network of well-stocked parts depots and highly experienced service and support personnel.



1) General Duty 2) Heavy Duty 3) Severe Duty 4) Extreme Duty



# Integrated Technologies

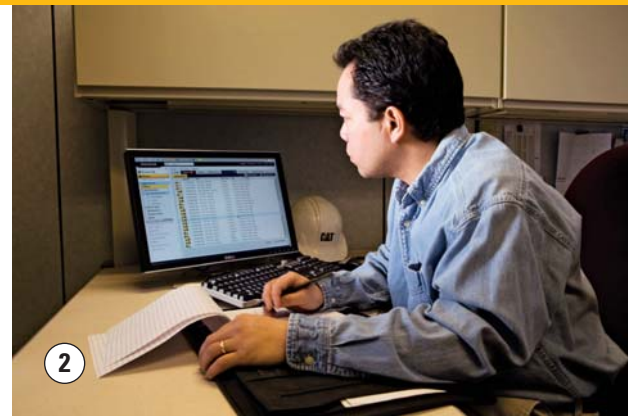
Solutions that make work easier and more efficient

## 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.



# Serviceability

Fast, easy and safe access built in

## Service Doors

Wide service doors (1) and a one-piece hood 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 Services

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 easy to service compared to a traditional hand-priming pump.

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.



# 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.

### **Sound Proofing**

Improved sealing and cab 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 securely work on the machine.



### **Time Delay Cab and Boom Lights**

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 can be upgraded to HID for greater visibility.

### **Visibility – Windows**

Two windshield options are available: The 70/30 split configuration features an upper window equipped with handles on the top and both sides so the operator can slide it to store in the ceiling. The lower window is removable and can be stored on the left wall of the cab shell. A one-piece fixed front windshield provides operators an unobstructed forward view.

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

### **Wiper System**

Designed to maximize visibility in poor weather conditions, the parallel wiper system covers most of the front window without leaving unwiped areas in the line of sight of the operator. The wiper motor is integrated to the upper frame so that it does not obstruct any part of the forward view.

### **Monitor Warning System**

The monitor is equipped with a buzzer that can warn operators of critical events so they can take any necessary action.

### **Rearview Camera**

The standard rearview camera is housed in the counterweight (3). The image projects through the cab monitor to give the operator a clear view of what is 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 EU Stage IIIB emission standards.
- Even when operating in high horsepower and high production applications, the 324E performs a similar amount of work while burning up to 7% less fuel than the previous D Series model. This means more efficiency, less resources consumed, and fewer CO<sub>2</sub> 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 Flywheel Power	130 kW
Net Flywheel Power (metric)	177 hp
Net Flywheel Power (imperial)	174 hp
Net Power – ISO 14396	151 kW
Net Power – ISO 14396 (metric)	205 hp
Net Power – ISO 14396 (imperial)	202 hp
Bore	105 mm
Stroke	135 mm
Displacement	7.01 L

## Weights

Minimum Weight*	25 127 kg
Maximum Weight**	29 659 kg

\*Long Undercarriage, 5.9 m reach boom, R2.5CB1 stick, 4.0 mt counterweight, 1.33 m<sup>3</sup> bucket, 600 mm TG shoes.

\*\*Long Undercarriage, Super Long Reach, 7.85 m stick, 6.75 mt counterweight, 0.6 m<sup>3</sup> bucket, 900 mm shoes.

## Hydraulic System

Main System – Maximum Flow (Total)	462 L/min
Swing System – Maximum Flow	231 L/min
Maximum Pressure – Equipment Heavy Lift	38 000 kPa
Maximum Pressure – Equipment Normal	35 000 kPa
Maximum Pressure – Travel	35 000 kPa
Maximum Pressure – Swing	24 497 kPa
Pilot System – Maximum Flow	23.1 L/min
Pilot System – Maximum Pressure	3920 kPa
Boom Cylinder – Bore	135 mm
Boom Cylinder – Stroke	1305 mm
Stick Cylinder – Bore	140 mm
Stick Cylinder – Stroke	1660 mm
CB1 Bucket Cylinder – Bore	130 mm
CB1 Bucket Cylinder – Stroke	1156 mm
DB Bucket Cylinder – Bore	150 mm
DB Bucket Cylinder – Stroke	1151 mm

## Drive

Maximum Travel Speed	5.3 km/h
Maximum Drawbar Pull	226 kN

## Swing Mechanism

Swing Speed	9.2 rpm
Swing Torque	73.4 kN·m

## Service Refill Capacities

Fuel Tank Capacity	520 L
Cooling System	44 L
Engine Oil (with filter)	22.5 L
Swing Drive (each)	10 L
Final Drive (each)	6 L
Hydraulic System (including tank)	280 L
Hydraulic Tank	155 L

## Track

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

## Sound Performance

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

- Operator Sound – The operator sound level is measured according to the procedures specified in ISO 6396, for cab offered by Caterpillar, when properly installed and maintained and tested with doors and windows closed.
- Exterior Sound – The labeled spectator sound power level is measured according to the test procedures and conditions specified in 2000/14/EC.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in a noisy environment.

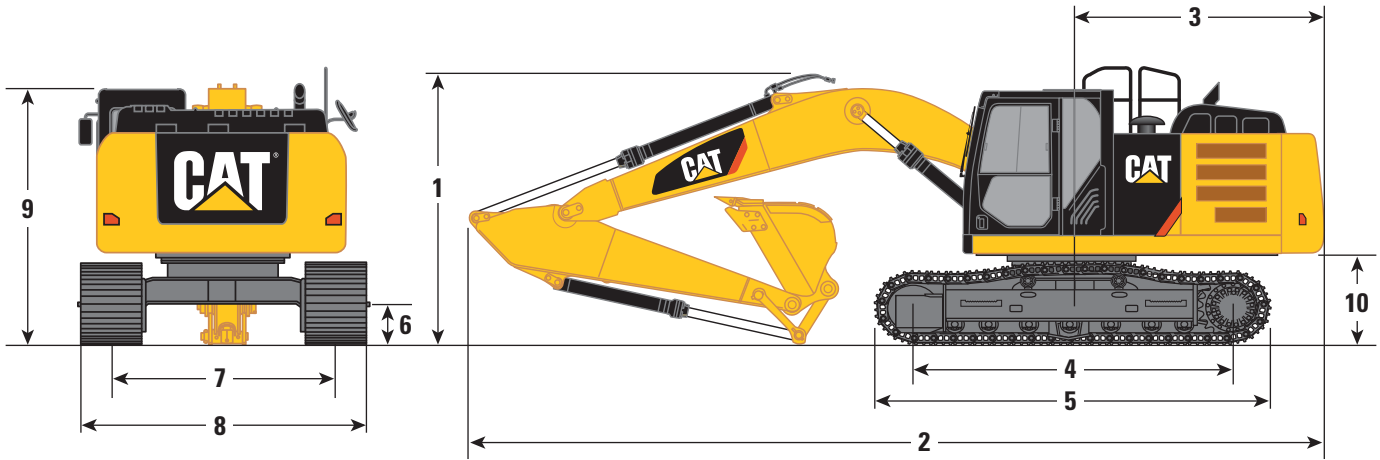
## Standards

Brakes	ISO 10265 2008
Cab/FOGS	ISO 10262 1998
Cab/ROPS	ISO 12117-2:2008

# 324E Hydraulic Excavator Specifications

## Dimensions

All dimensions are approximate.



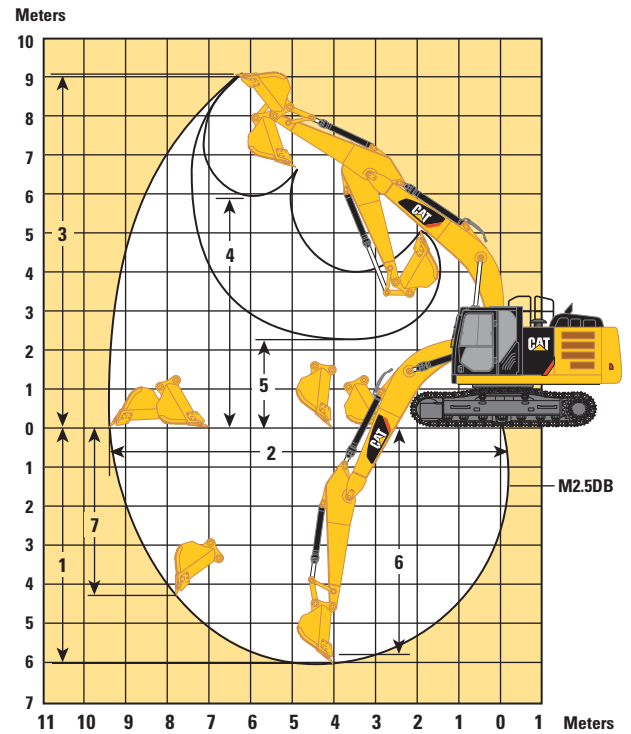
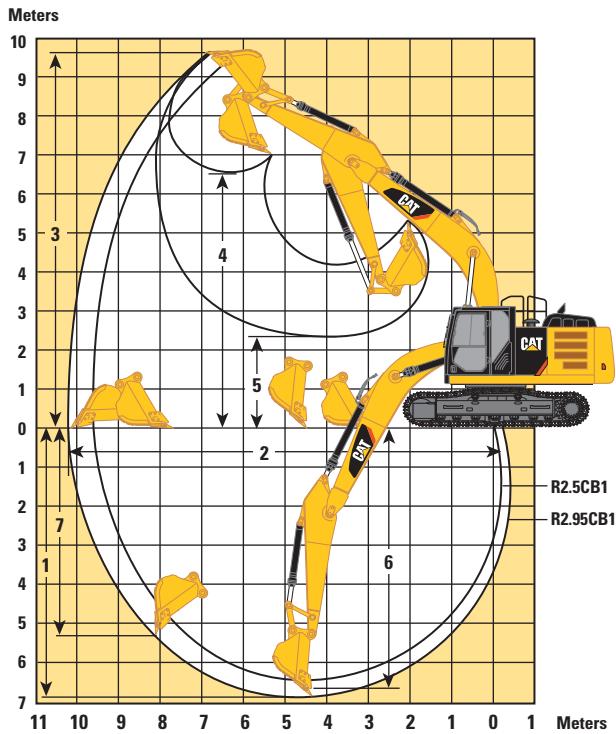
Stick	ES & HD Reach Booms 5.9 m		Mass Boom 5.3 m	Variable Angle Booms 2.8 m (Stub), 3.3 m (Fore)		Super Long Reach Boom 10.2 m
	R2.95CB1	R2.5CB1	M2.5DB	R2.95CB1	R2.5CB1	Super Long Reach 7.85 m
	mm	mm	mm	mm	mm	mm
<b>1</b> Shipping Height*	3221	3410	3500	3115	3115	3229
Shipping Height with Guard Rail (without fronts)	3283	3283	3283	3283	3283	3283
Shipping Height with Top Guard (without fronts)	3190	3190	3190	3190	3190	3190
<b>2</b> Shipping Length	10 063	10 100	9480	10 202	10 199	14 352
<b>3</b> Tail Swing Radius	2947	2947	2947	2947	2947	2947
<b>4</b> Length to Center of Rollers						
Long Undercarriage	3830	3830	3830	3830	3830	3830
Long Narrow Undercarriage	3830	3830	3830	3830	3830	–
<b>5</b> Track Length						
Long Undercarriage	4640	4640	4640	4640	4640	4640
Long Narrow Undercarriage	4640	4640	4640	4640	4640	–
<b>6</b> Ground Clearance						
Long Undercarriage	440	440	440	440	440	440
Long Narrow Undercarriage	440	440	440	440	440	–
<b>7</b> Track Gauge						
Long Undercarriage	2590	2590	2590	2590	2590	2590
Long Narrow Undercarriage	2390	2390	2390	2390	2390	–
<b>8</b> Transport Width						
Long Undercarriage – 600 mm Shoes	3190	3190	3190	3190	3190	3190
Long Undercarriage – 700 mm Shoes	3290	3290	3290	3290	3290	3290
Long Undercarriage – 790 mm Shoes	3380	3380	3380	3380	3380	3380
Long Undercarriage – 900 mm Shoes	3490	3490	3490	3490	3490	3490
Long Narrow Undercarriage – 600 mm Shoes	2990	2990	2990	2990	2990	–
Long Narrow Undercarriage – 700 mm Shoes	3090	3090	3090	3090	3090	–
Long Narrow Undercarriage – 790 mm Shoes	3180	3180	3180	3180	3180	–
<b>9</b> Cab Height	2996	2996	2996	2996	2996	2996
Cab Height with Top Guard	3190	3190	3190	3190	3190	3190
<b>10</b> Counterweight Clearance**	1088	1088	1088	1088	1088	1088

\*Including shoe lug height.

\*\*Without shoe lug height.

## Working Ranges

All dimensions are approximate.

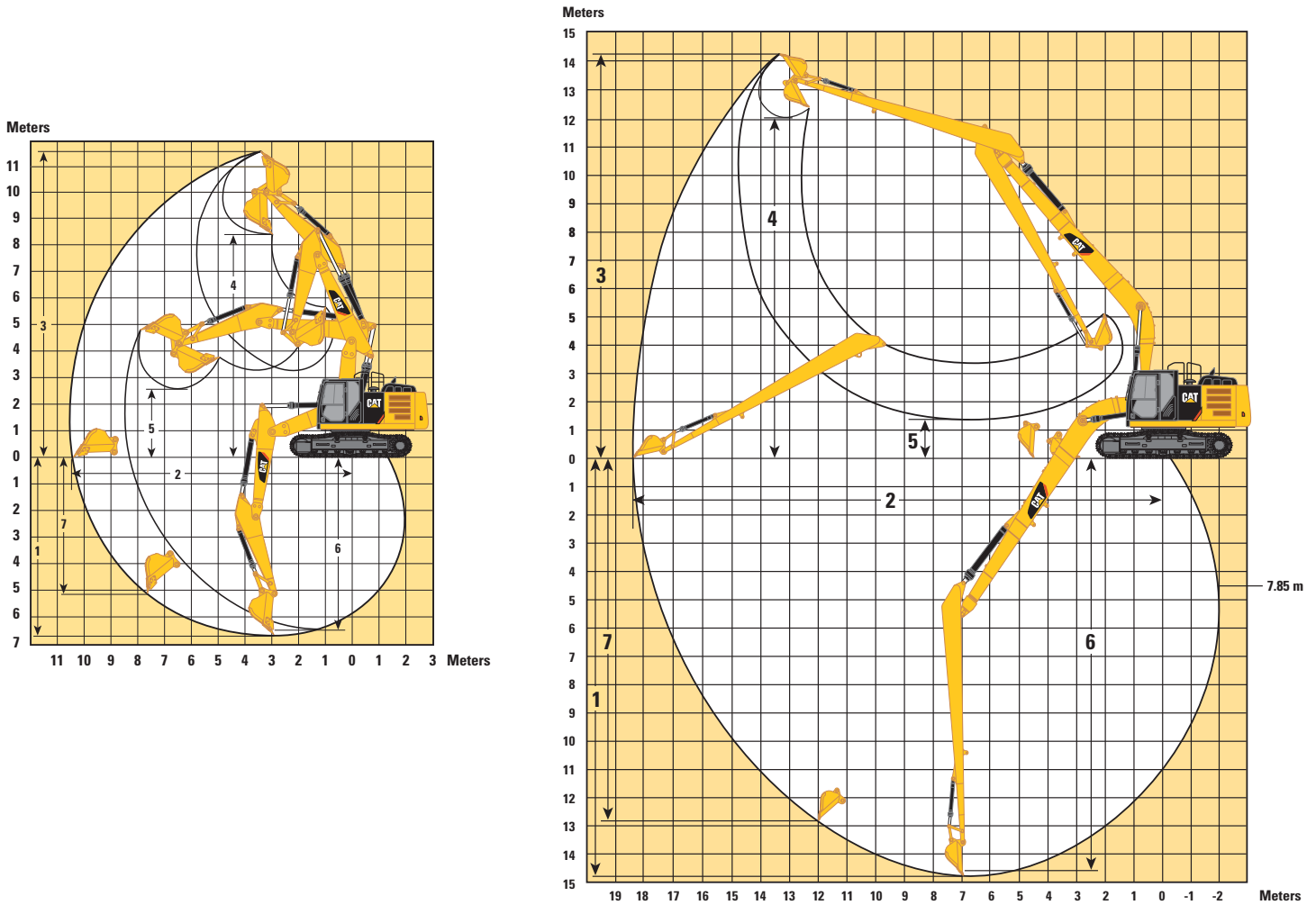


Stick	ES & HD Reach Booms 5.9 m		Mass Boom 5.3 m
	R2.95CB1	R2.5CB1	M2.5DB
	mm	mm	mm
1 Maximum Digging Depth	6810	6360	6000
2 Maximum Reach at Ground Level	10 110	9690	9200
3 Maximum Cutting Height	9690	9490	9060
4 Maximum Loading Height	7450	6440	5890
5 Minimum Loading Height	2410	2860	2280
6 Maximum Depth Cut for 2440 mm Level Bottom	6640	6160	5810
7 Maximum Vertical Wall Digging Depth	5300	4870	4250

# 324E Hydraulic Excavator Specifications

## Working Ranges

All dimensions are approximate.



Stick	Variable Angle Booms 2.8 m (Stub), 3.3 m (Fore)		Super Long Reach Boom 10.2 m
	R2.95CB1 mm	R2.5CB1 mm	Super Long Reach 7.85 m mm
1 Maximum Digging Depth	6690	6250	14 730
2 Maximum Reach at Ground Level	10 330	9920	18 430
3 Maximum Cutting Height	11 600	11 260	14 260
4 Maximum Loading Height	8320	7980	12 030
5 Minimum Loading Height	3320	3890	1370
6 Maximum Depth Cut for 2440 mm Level Bottom	6590	6150	14 640
7 Maximum Vertical Wall Digging Depth	5100	4680	12 800

## Operating Weight and Ground Pressure

	900 mm		790 mm		700 mm		600 mm	
	Triple Grouser Shoes		Triple Grouser Shoes		Triple Grouser Shoes		Triple Grouser Shoes	
	kg	kPa	kg	kPa	kg	kPa	kg	kPa
<b>Long Undercarriage</b>								
HD Reach Boom – 5.9 m								
R2.95CB1 HD	26 067	37.1	25 887	42.0	25 627	46.9	25 187	53.7
R2.5CB1 HD	26 007	37.0	25 827	41.9	25 567	46.8	25 127	53.6
ES Reach Boom – 5.9 m								
R2.95CB1 ES	26 297	37.4	26 117	42.3	25 857	47.3	25 417	54.2
R2.5CB1 ES	26 207	37.3	26 027	42.2	25 767	47.1	25 327	54.0
Mass Boom – 5.3 m								
M2.5DB	26 487	37.7	26 307	42.6	26 047	47.6	25 607	54.6
Super Long Reach Boom – 10.2 m								
7.85 m (SLR)	29 659	42.2	29 479	47.8	29 219	53.4	28 779	61.4
Variable Angle Boom – 2.8 m (Stub), 3.3 m (Fore)								
R2.95CB1 HD	26 609	37.9	26 429	42.8	26 169	47.9	25 729	54.9
R2.5CB1 HD	26 549	37.8	26 369	42.7	26 109	47.8	25 669	54.8
<b>Long Narrow Undercarriage</b>								
HD Reach Boom – 5.9 m								
R2.95CB1 HD	–	–	26 087	42.3	25 827	47.2	25 387	54.2
R2.5CB1 HD	–	–	26 027	42.2	25 767	47.1	25 327	54.0
ES Reach Boom – 5.9 m								
R2.95CB1 ES	–	–	26 317	42.6	26 057	47.7	25 617	54.7
R2.5CB1 ES	–	–	26 227	42.5	25 967	47.5	25 527	54.5
Mass Boom – 5.3 m								
M2.5DB	–	–	26 507	43.0	26 247	48.0	25 807	55.1
Variable Angle Boom – 2.8 m (Stub), 3.3 m (Fore)								
R2.95CB1 HD	–	–	26 629	43.2	26 369	48.2	25 929	55.3
R2.5CB1 HD	–	–	26 569	43.1	26 309	48.1	25 869	55.2

# 324E Hydraulic Excavator Specifications

## Major Component Weights

	kg
Base Machine (with boom cylinder, without counterweight, front linkage and track)	
Long Undercarriage	14 300
Long Narrow Undercarriage	14 500
Counterweight	
4.0 mt	4020
6.75 mt	6750
Boom (includes lines, pins and stick cylinder)	
HD Reach Boom – 5.9 m	1740
ES Reach Boom – 5.9 m	1840
Mass Boom – 5.3 m	1850
Super Long Reach – 10.2 m	2800
Variable Angle Boom (Stub)	1032
Variable Angle Boom (Fore)	1250
Stick (includes lines, pins and bucket cylinder)	
R2.95CB1 HD	840
R2.5CB1 HD	780
R2.95CB1 ES	970
R2.5CB1 ES	880
M2.5DB	970
7.85 m (SLR)	1400
Track Shoe (Long/per two tracks)	
600 mm Triple Grouser	3240
700 mm Triple Grouser	3680
790 mm Triple Grouser	3940
900 mm Triple Grouser	4120
Track Shoe (Long Narrow/per two tracks)	
600 mm Triple Grouser	3240
700 mm Triple Grouser	3680
790 mm Triple Grouser	3940
Buckets	
CB1 1200HD – 1.33 m <sup>3</sup>	1047
CB1 1350HD – 1.54 m <sup>3</sup>	1096
DB 1500GD – 1.87 m <sup>3</sup>	1227
A 1145DC – 0.6 m <sup>3</sup>	288.9

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

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

## Bucket and Stick Forces

Stick	Reach and Variable Angle Booms 5.9 m (Reach); 2.8 m (VAB Stub), 3.3 m (VAB Fore)				Mass Boom 5.3 m	Super Long Reach Boom 10.2 m
	CB-Family Bucket		CB-Family Bucket for CW-45		DB-Family Bucket	A-Family Bucket
	R2.95CB1 kN	R2.5CB1 kN	R2.95CB1 kN	R2.5CB1 kN	M2.5DB kN	Super Long Reach 7.85 m kN
General Duty						
Bucket Digging Force (ISO)	167	167	152	152	212	–
Stick Digging Force (ISO)	121	141	116	135	138	–
Heavy Duty						
Bucket Digging Force (ISO)	166	166	152	152	210	–
Stick Digging Force (ISO)	121	141	116	135	137	–
Severe Duty						
Bucket Digging Force (ISO)	166	166	–	–	–	–
Stick Digging Force (ISO)	121	141	–	–	–	–
Ditch Cleaning						
Bucket Digging Force (ISO)	–	–	–	–	–	60
Stick Digging Force (ISO)	–	–	–	–	–	45

## Tip Radius

	CB-Family Bucket	CB-Family Bucket for CW-45	DB-Family Bucket	A-Family Bucket
General Duty	1623 mm	1772 mm	1745 mm	–
General Duty Capacity	1656 mm	–	–	–
Heavy Duty	1650 mm	1798 mm	1779 mm	–
Severe Duty	1650 mm	–	–	–
Ditch Cleaning	–	–	–	1092 mm

# 324E Hydraulic Excavator Specifications

## 324E L Heavy Duty Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Boom – 5.9 m















Stick – R2.95CB1

Counterweight – 4.0 mt

Shoes – 600 mm triple grouser

Bucket – None

Heavy Lift – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg							*7100	*7100			*5900	*5900	6.42
6.0 m	kg							*7200	7050	*5650	4900	*5600	4850	7.51
4.5 m	kg					*9400	*9400	*8050	6800	7200	4800	*5600	4200	8.18
3.0 m	kg					*12 050	9950	*9250	6500	7000	4650	5750	3850	8.53
1.5 m	kg					*14 350	9300	9600	6200	6850	4500	5600	3700	8.61
Ground Line	kg					14 950	9000	9350	6000	6700	4400	5700	3750	8.42
-1.5 m	kg			*11 050	*11 050	14 850	8900	9250	5900	6650	4350	6150	4050	7.94
-3.0 m	kg			*18 050	17 950	*14 250	9000	9300	5950			7250	4750	7.11
-4.5 m	kg			*15 850	*15 850	*11 650	9250					*8700	6450	5.78

Boom – 5.9 m















Stick – R2.95CB1

Counterweight – 4.0 mt

Shoes – 700 mm triple grouser

Bucket – None

Heavy Lift – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg							*7100	*7100			*5900	*5900	6.42
6.0 m	kg							*7200	7150	*5650	4950	*5600	4950	7.51
4.5 m	kg					*9400	*9400	*8050	6900	7300	4900	*5600	4250	8.18
3.0 m	kg					*12 050	10 100	*9250	6600	7150	4750	*5800	3900	8.53
1.5 m	kg					*14 350	9450	9750	6300	6950	4600	5650	3750	8.61
Ground Line	kg					15 200	9150	9500	6100	6850	4500	5800	3800	8.42
-1.5 m	kg			*11 050	*11 050	15 100	9050	9400	6000	6800	4450	6250	4100	7.94
-3.0 m	kg			*18 050	*18 050	*14 250	9150	9450	6000			7400	4800	7.11
-4.5 m	kg			*15 850	*15 850	*11 650	9350					*8700	6550	5.78

Boom – 5.9 m















Stick – R2.5CB1

Counterweight – 4.0 mt

Shoes – 600 mm triple grouser

Bucket – None

Heavy Lift – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg											*7950	7250	5.86
6.0 m	kg							*7800	6950			*7600	5350	7.04
4.5 m	kg					*10 300	*10 300	*8600	6750	7150	4800	6750	4550	7.75
3.0 m	kg					*12 900	9800	*9700	6450	7000	4650	6200	4150	8.12
1.5 m	kg					*14 900	9200	9550	6150	6850	4500	6000	4000	8.20
Ground Line	kg					14 950	9000	9350	6000	6750	4450	6150	4050	8.00
-1.5 m	kg			*11 400	*11 400	14 900	8950	9300	5950			6750	4450	7.49
-3.0 m	kg			*18 350	18 150	*13 650	9100	9400	6000			8150	5300	6.61
-4.5 m	kg					*10 350	9400					*8800	7750	5.15

\*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 L Extreme Service Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom – 5.9 m**















**Counterweight – 4.0 mt**

**Bucket – None**

**Stick – R2.95CB1**

**Shoes – 600 mm triple grouser**

**Heavy Lift – On**

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg							*7050	*7050			*5850	*5850	6.42
6.0 m	kg							*7150	7000	*5600	4800	*5550	4800	7.51
4.5 m	kg					*9300	*9300	*7950	6750	7100	4750	*5550	4100	8.18
3.0 m	kg					*11 900	9850	*9150	6400	6950	4600	5650	3750	8.53
1.5 m	kg					*14 200	9200	9500	6100	6750	4450	5500	3600	8.61
Ground Line	kg					14 800	8850	9250	5850	6650	4300	5600	3650	8.42
-1.5 m	kg			*11 000	*11 000	14 700	8750	9150	5800	6600	4250	6100	3950	7.94
-3.0 m	kg			*18 050	17 700	*14 050	8850	9200	5800			7150	4650	7.11
-4.5 m	kg			*15 600	*15 600	*11 500	9100					*8550	6350	5.78

**Boom – 5.9 m**















**Counterweight – 4.0 mt**

**Bucket – None**

**Stick – R2.5CB1**

**Shoes – 600 mm triple grouser**

**Heavy Lift – On**

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg											*7850	7200	5.86
6.0 m	kg							*7750	6950			*7600	5300	7.04
4.5 m	kg					*10 200	*10 200	*8500	6700	7100	4700	6700	4450	7.75
3.0 m	kg					*12 750	9700	*9600	6350	6950	4600	6150	4050	8.12
1.5 m	kg					*14 750	9100	9500	6100	6800	4450	5950	3900	8.20
Ground Line	kg					14 800	8850	9250	5900	6650	4350	6100	4000	8.00
-1.5 m	kg			*11 400	*11 400	14 750	8850	9200	5850			6650	4350	7.49
-3.0 m	kg			*18 150	17 950	*13 500	8950	9300	5900			8100	5200	6.61
-4.5 m	kg					*10 250	9300					*8700	7650	5.15

\*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

## 324E L Variable Angle Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 2.8 m (Stub), 3.3 m (Fore)















**Stick** – R2.95CB1

**Counterweight** – 4.0 mt

**Shoes** – 700 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
9.0 m	kg					*7300	*7300					*7300	*7300	5.04
7.5 m	kg					*8400	*8400	*6250	*6250			*6400	5950	6.72
6.0 m	kg					*8600	*8600	*6950	*6950	*6150	4950	*6100	4650	7.77
4.5 m	kg			*15 100	*15 100	*9700	*9700	*6900	*6900	*6300	4850	6050	4000	8.42
3.0 m	kg			*12 100	*12 100	*9350	*9350	*7100	6500	*6700	4650	5550	3650	8.76
1.5 m	kg			*7150	*7150	*10 800	9200	*8100	6150	6900	4500	5400	3500	8.84
Ground Line	kg	*7900	*7900	*6450	*6450	*14 300	8850	9400	5900	6750	4350	5500	3550	8.65
-1.5 m	kg	*10 250	*10 250	*9750	*9750	14 950	8800	9300	5800	6700	4300	5950	3850	8.18
-3.0 m	kg	*16 200	*16 200	*17 300	*17 300	*11 950	8900	9350	5850			*6600	4450	7.38
-4.5 m	kg	*26 100	*26 100	*17 900	*17 900	*11 250	9200					*9450	7250	5.31

**Boom** – 2.8 m (Stub), 3.3 m (Fore)















**Stick** – R2.5CB1

**Counterweight** – 4.0 mt

**Shoes** – 700 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
9.0 m	kg											*10 050	*10 050	4.25
7.5 m	kg					*9950	*9950	*8500	7100			*8500	6800	6.16
6.0 m	kg			*9550	*9550	*9850	*9850	*8050	7100			7700	5100	7.29
4.5 m	kg			*15 200	*15 200	*9550	*9550	*7300	6800	7250	4800	6550	4300	7.98
3.0 m	kg			*14 600	*14 600	*9400	*9400	*7500	6450	7100	4650	6000	3950	8.34
1.5 m	kg			*10 550	*10 550	*11 700	9100	*8550	6100	6900	4450	5800	3800	8.42
Ground Line	kg	*11 150	*11 150	*9450	*9450	15 000	8850	9400	5900	6800	4350	5950	3850	8.22
-1.5 m	kg	*12 850	*12 850	*11 000	*11 000	*14 050	8850	9350	5850	6750	4350	6500	4200	7.73
-3.0 m	kg	*20 700	*20 700	*17 600	*17 600	*11 100	9000	*8400	5950			*7150	5050	6.78
-4.5 m	kg			*17 950	*17 950							*14 150	12 750	3.72

\*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 L Mass Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 5.3 m

**Counterweight** – 4.0 mt

**Bucket** – None

**Stick** – M2.5DB

**Shoes** – 600 mm triple grouser

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
7.5 m	kg											*7900	*7900	5.01
6.0 m	kg							*8250	6850			*7200	6200	6.35
4.5 m	kg					*9850	*9850	*8650	6700			*7050	5050	7.13
3.0 m	kg					*12 200	9900	*9650	6400	6900	4550	6850	4500	7.54
1.5 m	kg					*14 400	9300	9550	6100	6750	4400	6600	4300	7.62
Ground Line	kg					14 950	8950	9300	5900			6800	4400	7.41
-1.5 m	kg			*17 100	*17 100	14 900	8900	9250	5850			7600	4900	6.85
-3.0 m	kg			*18 400	18 050	*13 200	9050					*9550	6200	5.87

\*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

## 324E L 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

Counterweight – 6.75 mt

Bucket – None

Stick – 7.85 m Super Long Reach

Shoes – 790 mm triple grouser with step

Heavy Lift – On

Load Point Height	Unit	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Load at Maximum Reach		m	
		Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side		
12.0 m	kg														*1350	*1350	13.94
10.5 m	kg														*1300	*1300	14.93
9.0 m	kg														*1250	*1250	15.72
7.5 m	kg														*1250	*1250	16.32
6.0 m	kg														*1250	*1250	16.78
4.5 m	kg														*1300	*1300	17.08
3.0 m	kg			*4850	*4850							*3650	*3650	*1300	1300	17.25	
1.5 m	kg			*1550	*1550	*5500	*5500	*6500	*6500	*5050	4950	*4200	3850	*1350	1250	17.29	
Ground Line	kg			*1650	*1650	*3650	*3650	*7550	5950	*5750	4500	*4700	3550	*1450	1250	17.20	
-1.5 m	kg	*1600	*1600	*2100	*2100	*3550	*3550	*6600	5450	*6350	4100	*5100	3250	*1550	1250	16.97	
-3.0 m	kg	*2200	*2200	*2700	*2700	*3850	*3850	*6250	5150	6450	3900	5050	3050	*1650	1250	16.60	
-4.5 m	kg	*2800	*2800	*3300	*3300	*4400	*4400	*6550	5050	6300	3750	4900	2950	*1850	1300	16.09	
-6.0 m	kg	*3400	*3400	*4000	*4000	*5100	*5100	*7200	5000	6250	3700	4850	2900	*2050	1400	15.41	
-7.5 m	kg	*4100	*4100	*4750	*4750	*5950	*5950	*8200	5050	6250	3700	4850	2900	*2400	1550	14.54	
-9.0 m	kg	*4800	*4800	*5600	*5600	*7000	*7000	*8550	5200	6350	3800	4900	2950	*2900	1750	13.45	
-10.5 m	kg	*5600	*5600	*6600	*6600	*8250	*8250	*7900	5400	*6400	3900	5000	3050	3450	2100	12.07	
-12.0 m	kg			*7750	*7750	*8800	*8800	*6900	5700	*5600	4150	*4600	3250	*3800	2750	10.29	

Load Point Height	Unit	10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		Load at Maximum Reach		m
		Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	
12.0 m	kg					*1800	*1800					*1350	*1350	13.94
10.5 m	kg					*2200	*2200					*1300	*1300	14.93
9.0 m	kg					*2250	*2250	*2050	2000			*1250	*1250	15.72
7.5 m	kg					*2350	*2350	*2350	2000			*1250	*1250	16.32
6.0 m	kg					*2450	2400	*2450	1950	*1650	1550	*1250	*1250	16.78
4.5 m	kg			*2750	*2750	*2600	2300	*2550	1850	*2050	1500	*1300	*1300	17.08
3.0 m	kg	*3250	*3250	*3000	2650	*2800	2150	*2650	1750	2350	1450	*1300	1300	17.25
1.5 m	kg	*3650	3050	*3250	2500	*3000	2050	2700	1700	2300	1400	*1350	1250	17.29
Ground Line	kg	*4000	2850	*3550	2350	3100	1950	2600	1600	2250	1350	*1450	1250	17.20
-1.5 m	kg	4250	2650	3500	2200	2950	1800	2550	1550	2200	1300	*1550	1250	16.97
-3.0 m	kg	4100	2500	3400	2050	2900	1750	2500	1500	*1900	1250	*1650	1250	16.60
-4.5 m	kg	4000	2400	3300	2000	2850	1700	2450	1450			*1850	1300	16.09
-6.0 m	kg	3950	2350	3300	1950	2800	1650	2450	1450			*2050	1400	15.41
-7.5 m	kg	3900	2350	3300	1950	2800	1700					*2400	1550	14.54
-9.0 m	kg	3950	2400	3350	2000							*2900	1750	13.45
-10.5 m	kg	4100	2500	3450	2150							3450	2100	12.07
-12.0 m	kg											*3800	2750	10.29

\*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 LN Heavy Duty Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom – 5.9 m**















**Counterweight – 4.0 mt**

**Bucket – None**

**Stick – R2.95CB1**

**Shoes – 600 mm triple grouser**

**Heavy Lift – On**

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg							*7100	6600			*5900	5900	6.42
6.0 m	kg							*7200	6550	*5650	4550	*5600	4550	7.51
4.5 m	kg					*9400	*9400	*8050	6350	7250	4500	*5600	3900	8.18
3.0 m	kg					*12 050	9150	*9250	6000	7050	4350	5800	3550	8.53
1.5 m	kg					*14 350	8500	9650	5700	6900	4200	5600	3400	8.61
Ground Line	kg					15 100	8200	9450	5500	6800	4050	5750	3500	8.42
-1.5 m	kg			*11 050	*11 050	14 950	8150	9350	5400	6750	4000	6200	3750	7.94
-3.0 m	kg			*18 050	15 950	*14 250	8200	9350	5450			7300	4350	7.11
-4.5 m	kg			*15 850	*15 850	*11 650	8450					*8700	5950	5.78

**Boom – 5.9 m**















**Counterweight – 4.0 mt**

**Bucket – None**

**Stick – R2.5CB1**

**Shoes – 600 mm triple grouser**

**Heavy Lift – On**

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
7.5 m	kg											*7950	6750	5.86
6.0 m	kg							*7800	6500			*7600	5000	7.04
4.5 m	kg					*10 300	9700	*8600	6250	7200	4450	6800	4200	7.75
3.0 m	kg					*12 900	8950	*9700	5950	7050	4300	6250	3850	8.12
1.5 m	kg					*14 900	8400	9650	5700	6900	4200	6050	3700	8.20
Ground Line	kg					15 050	8200	9450	5500	6800	4100	6200	3750	8.00
-1.5 m	kg			*11 400	*11 400	15 000	8150	9350	5450			6800	4100	7.49
-3.0 m	kg			*18 350	16 150	*13 650	8300	9450	5550			8200	4900	6.61
-4.5 m	kg					*10 350	8600					*8800	7100	5.15

\*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

## 324E LN Extreme Service Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 5.9 m

**Stick** – R2.95CB1

**Counterweight** – 4.0 mt

**Shoes** – 600 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
7.5 m	kg							*7050	6550			*5850	5800	6.42
6.0 m	kg							*7150	6500	*5600	4450	*5550	4450	7.51
4.5 m	kg					*9300	*9300	*7950	6250	7150	4400	*5550	3800	8.18
3.0 m	kg					*11 900	9050	*9150	5950	7000	4250	5700	3450	8.53
1.5 m	kg					*14 200	8400	9600	5600	6800	4100	5550	3350	8.61
Ground Line	kg					14 900	8050	9300	5400	6700	3950	5650	3400	8.42
-1.5 m	kg			*11 000	*11 000	14 800	7950	9200	5300	6650	3950	6150	3650	7.94
-3.0 m	kg			*18 050	15 700	*14 050	8050	9250	5350			7250	4300	7.11
-4.5 m	kg			*15 600	*15 600	*11 500	8300					*8550	5850	5.78

**Boom** – 5.9 m

**Stick** – R2.5CB1

**Counterweight** – 4.0 mt

**Shoes** – 600 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
7.5 m	kg											*7850	6700	5.86
6.0 m	kg							*7750	6450			*7600	4950	7.04
4.5 m	kg					*10 200	9600	*8500	6200	7150	4400	6750	4150	7.75
3.0 m	kg					*12 750	8850	*9600	5900	7000	4250	6150	3750	8.12
1.5 m	kg					*14 750	8300	9550	5600	6850	4100	6000	3600	8.20
Ground Line	kg					14 900	8050	9350	5400	6750	4000	6150	3700	8.00
-1.5 m	kg			*11 400	*11 400	14 900	8050	9300	5350			6750	4000	7.49
-3.0 m	kg			*18 150	15 950	*13 500	8150	9350	5450			8150	4800	6.61
-4.5 m	kg					*10 250	8500					*8700	7050	5.15

\*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 LN Variable Angle Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 2.8 m (Stub), 3.3 m (Fore)















**Stick** – R2.95CB1

**Counterweight** – 4.0 mt

**Shoes** – 600 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
9.0 m	kg					*7300	*7300					*7300	*7300	5.04
7.5 m	kg					*8400	*8400	*6250	*6250			*6400	5450	6.72
6.0 m	kg					*8600	*8600	*6950	6550	*6150	4500	*6100	4200	7.77
4.5 m	kg			*15 100	*15 100	*9700	*9700	*6900	6300	*6300	4400	6000	3600	8.42
3.0 m	kg			*12 100	*12 100	*9350	8950	*7100	5900	*6700	4250	5500	3300	8.76
1.5 m	kg			*7150	*7150	*10 800	8250	*8100	5550	6850	4050	5350	3200	8.84
Ground Line	kg	*7900	*7900	*6450	*6450	*14 300	7900	9350	5300	6700	3900	5450	3200	8.65
-1.5 m	kg	*10 250	*10 250	*9750	*9750	14 800	7850	9250	5200	6650	3850	5900	3450	8.18
-3.0 m	kg	*16 200	*16 200	*17 300	15 500	*11 950	7950	9300	5250			*6600	4050	7.38
-4.5 m	kg	*26 100	*26 100	*17 900	16 000	*11 250	8200					*9450	6500	5.31

**Boom** – 2.8 m (Stub), 3.3 m (Fore)















**Stick** – R2.5CB1

**Counterweight** – 4.0 mt

**Shoes** – 600 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
														
9.0 m	kg											*10 050	*10 050	4.25
7.5 m	kg					*9950	*9950	*8500	6500			*8500	6200	6.16
6.0 m	kg			*9550	*9550	*9850	*9850	*8050	6450			7650	4650	7.29
4.5 m	kg			*15 200	*15 200	*9550	*9550	*7300	6200	7200	4350	6500	3950	7.98
3.0 m	kg			*14 600	*14 600	*9400	8750	*7500	5850	7050	4200	5950	3550	8.34
1.5 m	kg			*10 550	*10 550	*11 700	8100	*8550	5500	6850	4050	5750	3450	8.42
Ground Line	kg	*11 150	*11 150	*9450	*9450	14 900	7900	9350	5300	6750	3950	5900	3500	8.22
-1.5 m	kg	*12 850	*12 850	*11 000	*11 000	*14 050	7900	9250	5250	6700	3950	6450	3800	7.73
-3.0 m	kg	*20 700	*20 700	*17 600	15 700	*11 100	8050	*8400	5350			*7150	4600	6.78
-4.5 m	kg			*17 950	16 350							*14 150	11 350	3.72

\*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

## 324E LN Mass Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

**Boom** – 5.3 m

**Stick** – M2.5DB

**Counterweight** – 4.0 mt

**Shoes** – 600 mm triple grouser

**Bucket** – None

**Heavy Lift** – On

		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				m
7.5 m	kg											*7900	*7900	5.01
6.0 m	kg							*8250	6350			*7200	5750	6.35
4.5 m	kg					*9850	9750	*8650	6200			*7050	4650	7.13
3.0 m	kg					*12 200	9100	*9650	5900	6950	4200	6900	4150	7.54
1.5 m	kg					*14 400	8450	9600	5650	6800	4100	6650	4000	7.62
Ground Line	kg					15 100	8150	9400	5450			6850	4050	7.41
-1.5 m	kg			*17 100	15 700	15 000	8100	9350	5400			7650	4500	6.85
-3.0 m	kg			*18 400	16 050	*13 200	8200					*9550	5700	5.87

\*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.

## Work Tool Offering Guide\*

Boom Type	ES & HD Reach Booms		Mass Boom
	R2.95	R2.5	M2.5
Stick Size			
Hydraulic Hammer	H120E s H130E s	H120E s H130E s	H120E s H130E s
Multi-Processor	MP15 MP20	MP15 MP20	MP20
Crusher	P315 P325	P315 P325	P325
Pulverizer	P215 P225	P215 P225	P225
Demolition and Sorting Grapple	G320B G325B	G320B G325B	G320B G325B
Mobile Scrap and Demolition Shear	S320B S325B** S340B***	S320B S325B S340B***	S320B S325B S340B***
Compactor (Vibratory Plate)	CVP110	CVP110	CVP110
Orange Peel Grapple			
Ripper			
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)		Reach Boom (ES)		Super Long Reach	Mass Boom
		mm	m <sup>3</sup>	kg	%	R2.5 HD	R2.95 HD	R2.5 ES	R2.95 ES	7.85	R2.5
<b>Without Quick Coupler</b>						<b>324E L</b>					
Ditch Cleaning (DC)	A	1238	0.57	289	100%					⊖	
	A	770	0.69	377	100%					○	
General Duty (GD)	CB	750	0.71	730	100%	●	●	●	●		
	CB	1050	1.12	864	100%	●	●	●	●		
	CB	1200	1.33	927	100%	●	●	●	●		
	CB	1350	1.54	1009	100%	●	X	●	⊙		
	CB	1500	1.76	1074	100%	X	X	⊙	⊖		
	DB	1350	1.64	1173	100%						●
	DB	1500	1.88	1275	100%						⊙
	DB	1650	2.12	1352	100%						⊖
Heavy Duty (HD)	CB	1350	1.54	1134	100%	●	X	●	⊙		
	CB	1500	1.76	1229	100%	X	X	⊙	⊖		
	DB	1350	1.64	1447	100%						●
	DB	1500	1.88	1542	100%						⊖
	DB	1650	2.12	1673	100%						⊖
Severe Duty (SD)	CB	1350	1.56	1245	90%	●	X	●	⊙		
	DB	1650	2.15	1827	90%						⊖
Maximum load pin-on (payload + bucket)					kg	4405	4030	4375	3865	1145	4750
<b>With Quick Coupler</b>						<b>324E LN</b>					
Ditch Cleaning (DC)	A	1238	0.57	289	100%						
	A	770	0.69	377	100%						
General Duty (GD)	CB	750	0.71	730	100%	●	●	●	●		
	CB	1050	1.12	864	100%	●	●	●	●		
	CB	1200	1.33	927	100%	●	●	●	⊙		
	CB	1350	1.54	1009	100%	⊙	X	⊙	⊖		
	CB	1500	1.76	1074	100%	X	X	⊖	○		
	DB	1350	1.64	1173	100%						⊙
	DB	1500	1.88	1275	100%						⊖
	DB	1650	2.12	1352	100%						○
Heavy Duty (HD)	CB	1350	1.54	1134	100%	⊙	X	⊙	⊖		
	CB	1500	1.76	1229	100%	X	X	⊖	○		
	DB	1350	1.64	1447	100%						⊖
	DB	1500	1.88	1542	100%						○
	DB	1650	2.12	1673	100%						○
Severe Duty (SD)	CB	1350	1.56	1245	90%	⊙	X	⊙	⊖		
	DB	1650	2.15	1827	90%						○
Maximum load pin-on (payload + bucket)					kg	3930	3590	3845	3485	–	4215

### Maximum Material Density:

- 2100 kg/m<sup>3</sup>
- ⊙ 1800 kg/m<sup>3</sup>
- ⊖ 1500 kg/m<sup>3</sup>
- 1200 kg/m<sup>3</sup>
- X Not Recommended

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.

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)		Reach Boom (ES)		Super Long Reach	Mass Boom
		mm	m <sup>3</sup>	kg	%	R2.5 HD	R2.95 HD	R2.5 ES	R2.95 ES	7.85	R2.5
<b>With Quick Coupler (CW45, CW45s)</b>						<b>324E L</b>					
General Duty (GD)	CB	750	0.7	693	100%	●	●	●	●		
	CB	1350	1.5	1008	100%	⊙	⊖	⊙	⊖		
	CB	1500	1.76	1074	100%	⊖	○	⊖	○		
	CB	1650	1.97	1157	100%	○	○	○	◇		
	DB	1050	1.17	986	100%						●
	DB	1200	1.40	1064	100%						●
	DB	1350	1.64	1142	100%						⊙
	DB	1500	1.88	1245	100%						⊖
Heavy Duty (HD)	DB	1650	2.12	1323	100%						○
	CB	1200	1.33	1061	100%	●	⊙	●	⊙		
	CB	1350	1.54	1134	100%	⊙	⊖	⊙	⊖		
	CB	1500	1.76	1229	100%	⊖	○	⊖	○		
	CB	1650	1.97	1302	100%	○	○	○	◇		
	DB	1350	1.64	1417	100%						⊙
	DB	750	0.73	973	100%						●
	DB	1500	1.88	1514	100%						⊖
Severe Duty (SD)	DB	1650	2.12	1647	100%						○
	DB	1800	2.36	1746	100%						◇
	DB	1050	1.17	1282	90%						●
	DB	1500	1.91	1661	90%						⊖
		1650	2.15	1802	90%						○
Maximum load with coupler (payload + bucket)					kg	3941	3566	3911	3401		4260

### Maximum Material Density:

- 2100 kg/m<sup>3</sup>
- ⊙ 1800 kg/m<sup>3</sup>
- ⊖ 1500 kg/m<sup>3</sup>
- 1200 kg/m<sup>3</sup>
- ◇ 900 kg/m<sup>3</sup>

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.

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.

## Bucket Specifications and Compatibility

	Linkage	Width	Capacity	Weight	Fill	Reach Boom (HD)		Reach Boom (ES)		Super Long Reach	Mass Boom
		mm	m <sup>3</sup>	kg	%	R2.5 HD	R2.95 HD	R2.5 ES	R2.95 ES	7.85	R2.5
<b>With Quick Coupler (CW45, CW45s)</b>						<b>324E LN</b>					
General Duty (GD)	CB	750	0.7	693	100%	●	●	●	●		
	CB	1350	1.5	1008	100%	⊖	○	⊖	○		
	CB	1500	1.76	1074	100%	○	○	○	◇		
	CB	1650	1.97	1157	100%	○	◇	◇	◇		
	DB	1050	1.17	986	100%						●
	DB	1200	1.40	1064	100%						⊙
	DB	1350	1.64	1142	100%						⊖
	DB	1500	1.88	1245	100%						○
Heavy Duty (HD)	DB	1650	2.12	1323	100%						◇
	CB	1200	1.33	1061	100%	⊙	⊖	⊙	⊖		
	CB	1350	1.54	1134	100%	⊖	○	⊖	○		
	CB	1500	1.76	1229	100%	○	◇	○	◇		
	CB	1650	1.97	1302	100%	◇	◇	◇	◇		
	DB	1350	1.64	1417	100%						○
	DB	750	0.73	973	100%						●
	DB	1500	1.88	1514	100%						○
Severe Duty (SD)	DB	1650	2.12	1647	100%						◇
	DB	1800	2.36	1746	100%						X
	DB	1050	1.17	1282	90%						●
	DB	1500	1.91	1661	90%						○
		1650	2.15	1802	90%						◇
Maximum load with coupler (payload + bucket)					kg	3466	3126	3381	3021		3725

### Maximum Material Density:

- 2100 kg/m<sup>3</sup>
- ⊙ 1800 kg/m<sup>3</sup>
- ⊖ 1500 kg/m<sup>3</sup>
- 1200 kg/m<sup>3</sup>
- ◇ 900 kg/m<sup>3</sup>
- X Not Recommended

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.

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 Standard Equipment

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

## ENGINE

- C7.1 diesel engine
- Biodiesel capable
- EU Stage IIIB emissions
- 2300 m 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
- Air pre-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
- Boom lowering control device with SmartBoom™
- Stick lowering control device
- 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
- Coat hook
- Beverage holder
- Literature holder
- 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 window and tempered other windows
- Windshield wiper, parallel type
- Sunscreen
- Radio 12V mounting
- Openable roof hatch

## UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame
- Guard, heavy-duty bottom
- Swivel guard
- HD travel motor guards

## 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

## TECHNOLOGY

- Product Link

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

## ENGINE

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

## HYDRAULIC SYSTEM

Additional circuit  
Boom and stick lines  
High-pressure line  
Medium-pressure line  
Cat quick coupler line – high- and medium-pressure capable  
Quick coupler tool control system  
Tool 20, Electronic Control device, 1/2P, common circuit  
Tool 21, Electronic Control device, 1/2P, one-way circuit

## CAB

Seat, high-back air suspension with heater and cooling  
Seat, high-back air suspension with heater  
Travel alarm  
Left pedal  
Straight travel pedal  
Rain protector

## UNDERCARRIAGE

600 mm triple grouser shoes  
700 mm triple grouser shoes  
790 mm triple grouser shoes  
900 mm triple grouser shoes (Long Undercarriage only)  
Guard, full length  
Center track guiding guard  
Segmented (2 piece) track guiding guard

## COUNTERWEIGHT

4.0 mt  
6.75 mt for SLR boom/stick package

## FRONT LINKAGE

Bucket linkage, CB1/DB with and without lifting eye  
Bucket linkage, CB1 family with lifting eye  
Bucket linkage, DB family with lifting eye  
Variable angle boom 2.8 m (stub), 3.3 m (fore)  
Heavy-duty reach boom 5.9 m  
R2.5CB1 HD 2500 mm stick  
R2.95CB1 HD 2950 mm stick  
Extreme service reach boom 5.9 m  
R2.5CB1 ES 2500 mm stick  
R2.95CB1 ES 2950 mm stick  
Mass boom 5.3 m  
M2.5DB 2500 mm stick  
SLR boom 10.2 m  
7850 mm stick

## LIGHTS

Halogen lights, cab mounted  
HID lights, cab mounted

## SECURITY

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

## TECHNOLOGY

Cat Grade Control Depth and Slope

# 324E Hydraulic Excavator

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

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