312E/312E L

Hydraulic Excavator

Engine		
Engine Model	Cat® C4.4 ACERT™	
Engine Rated Power – ISO 14396	70 kW	94 hp
Drive		
Maximum Travel Speed	5.5 km/h	3.4 mph
Maximum Drawbar Pull	114 kN	25,628 lbf

Weight				
Operating Weight	Minimum		Maximum	
Standard	13 100 kg	28,881 lb	14 700 kg	32,408 lb
Long	13 500 kg	29,762 lb	15 000 kg	33,069 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 312E/312E L will continue that trend-setting standard.

The 312E/312E L meets U.S. Environmental Protection Agency (EPA) Tier 4 Interim emission standards, European Union Stage IIIB emission standards, and Japan MLIT Step 4 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 312E/312E L and the E Series family of excavators.

Contents

Engine

Reduced emissions, economical and reliable performance

Cat C4.4 ACERT Engine

The Cat C4.4 ACERT engine delivers the same level of performance using significantly less fuel than the previous series engine.

Emissions Solution

Equipped to meet U.S. Environmental Protection Agency (EPA) Tier 4 Interim emission standards, European Union Stage IIIB emission standards, and Japan MLIT Step 4 emission standards, the 312E/312E L's C4.4 ACERT engine features an aftertreatment regeneration solution that ensures the machine works as normal with no operator intervention needed.

Biodiesel-Ready Fuel System

The C4.4 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 EN 14214) up to B20 (biodiesel 20% mixture).

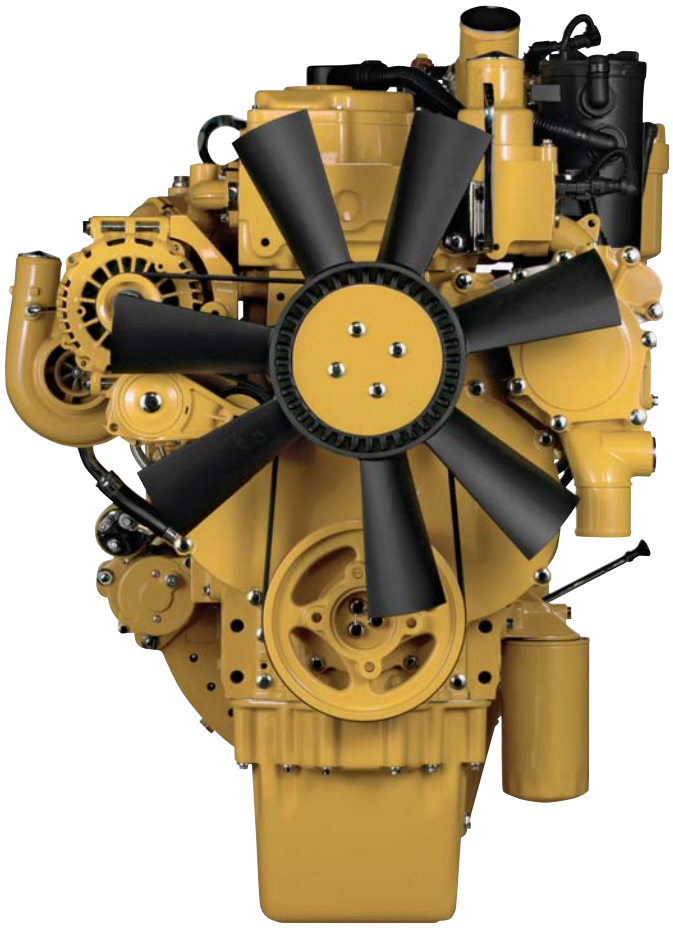
All non road U.S. (EPA) Tier 4 Interim and EU Stage IIIB diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 mg/kg sulfur or less. Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are also required. For further fluid specifications and guidelines, visit: *http://www.cat.com/cda/files/214956/7/SEBU6251-13-secured.pdf*

Cooling System

The cooling system features an air-to-air aftercooler and A/C condenser that tilt up and swing out of the way for easy servicing.

Speed and Power Control

The 312E/312E L features speed control to maximize performance while minimizing fuel consumption. Two different power modes are offered: high power mode when you need maximum production; economy mode when you need performance with the lowest fuel consumption. The operator can easily change between modes through the console switch panel 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 features air-suspension, heating and cooling. 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.

Monitor

The 312E/312E L is equipped with a 7" LCD (Liquid Crystal Display) monitor (1) 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 Idle 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, which will help keep you focused on the job at hand.

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. A dedicated 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

Main Control Valve and Auxiliary Valves

The 312E/312E L uses a high-pressure system to tackle the toughest of work in short order. The machine features a highly efficient and simple main control valve to improve fuel consumption; it also allows for greater tool versatility.

Electric Boom Regeneration System

The 312E/312E L regenerates the flow of oil from the head end of the boom cylinder to the rod end of the boom cylinder during a boom down operation to save energy, 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

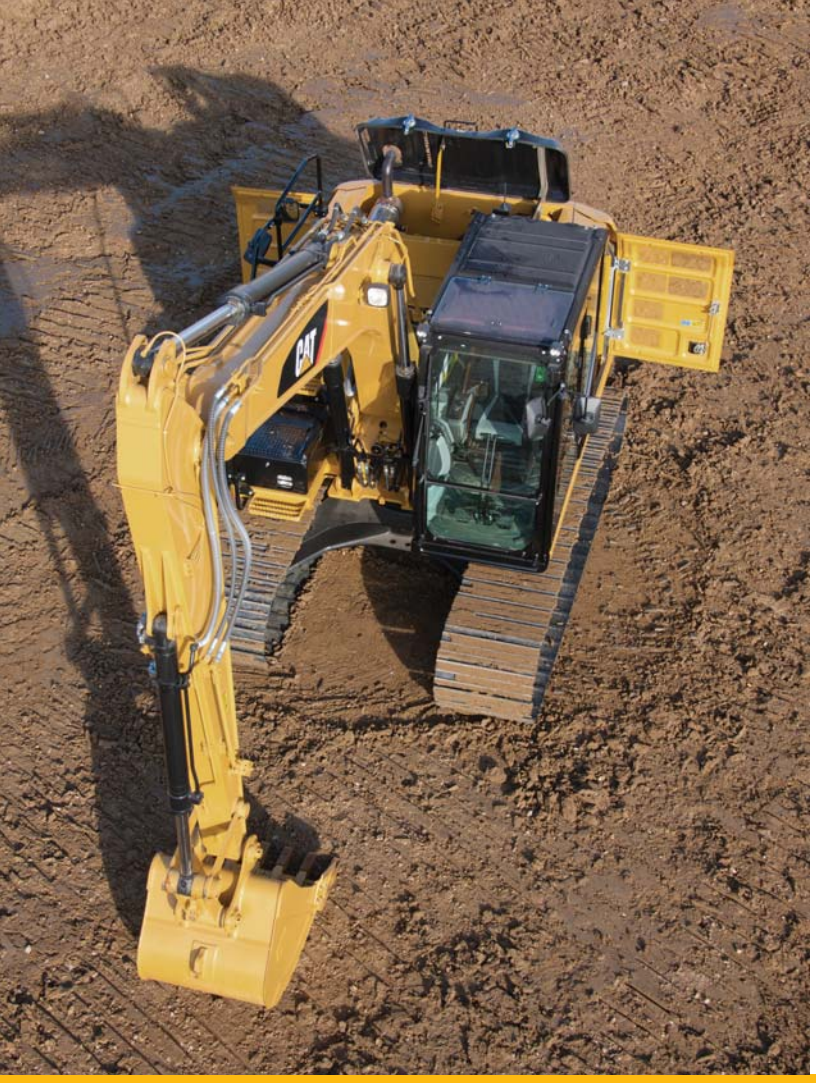
The upper frame includes reinforced mountings to support the Roll-Over Protective Structure (ROPS) cab; the lower frame is reinforced to increase component durability.

Undercarriage

Standard and long undercarriage support various work applications. The track rollers are a double solid-pin-type design to improve reliability compared to the single solid-pin-type design. A segmented two-piece guiding guard is now offered to help maintain track alignment and improve performance in multiple applications.

Counterweight

Built with integrated rearview camera housing, the counterweights come with integrated links to enable easy removal for maintenance or shipping.



Front Linkage

Made for high stress and long service life

Booms and Sticks

The 312E/312E L comes standard with a 4.65 m (15'3") Reach Boom. Stick options include R2.5m (8'3"), R3.0m (9'10") and a Cat Grade Control R3.0m (9'10"). Each boom and stick is built with internal baffle plates for added durability, and each undergoes ultrasound inspection to ensure weld quality and reliability.

Reach configurations balance digging force and bucket capacity. They cover all applications this size of machine was designed to take on such as digging, loading, trenching, and working with hydraulic tools.

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. Also, the front linkage pins' inner bearing surfaces are welded with a self-lubricated bearing used to extend service intervals and increase uptime.

Work Tools

Working as one

An extensive range of Cat Work Tools for the 312E/312E L includes buckets, grapples and hammers. Each is designed to optimize the versatility and performance of your machine.

Buckets

Cat buckets are designed as an integral part of the 312E/312E L system and feature new geometry for better performance. The leading edge has been repositioned, 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.

General Duty Buckets (GD)

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

Cat Center-Lock™ Pin Grabber Coupler

Center-Lock is the pin grabber style of coupler featuring a patented locking system. A highly visible lock clearly shows the operator when the coupler is engaged or disengaged from the bucket or work tool.

Hydraulic Kits

Caterpillar offers field-installed hydraulic kits that are uniquely designed to integrate Cat Work Tool attachments with Cat excavators. Hoses and tubes are pre-made, pre-shaped, and pre-painted to make installation quick and easy.

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.

Integrated Technologies

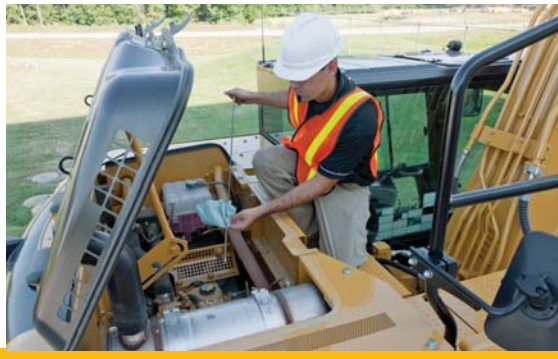
Solutions that make work easier and more efficient

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 enhances 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 optional system is deeply integrated into the machine monitoring system and 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 (2 and 3) 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 feature sturdier hinges and latches and a new screen design to help prevent debris entry; a one-piece hood provides easier access to the engine and cooling compartments.

Compartments

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

Other Service Benefits

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 before 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 is 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 cab allows an Operator Protective Guard (OPG) to be bolted directly to it.

Sound Proofing

Due to improved sealing and cab roof lining, noise levels inside the cab are significantly lower 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 optional guard rails to the upper deck enable operators to securely work on the machine.

Time Delay Lights

When the light switch is on, cab and boom lights will illuminate to enhance visibility after the engine start key has been turned off.

High Intensity Discharge (HID) Lights

Halogen lights are standard, but they can be upgraded to HID for greater visibility.

Windows

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. 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

The upper and lower windshield wipers maximize visibility in poor weather conditions and do not obstruct visibility when not in use.

Monitor Warning System

The machine features a buzzer in the monitor that tells customers when critical events like plugged filters or low hydraulic pressure need to be immediately addressed.

Rearview Camera

A standard rearview camera is housed in the counterweight. 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 C4.4 ACERT engine, along with the Cat Clean Emissions Module (CEM), meets U.S. Environmental Protection Agency (EPA) Tier 4 Interim emission standards, European Union Stage IIIB emission standards, and Japan MLIT Step 4 emission standards.
- Even when operating in high horsepower and high production applications, the 312E/312E L performs a similar amount of work while burning significantly less fuel than the previous D Series model. This means more efficiency, less resources consumed, and fewer emissions.
- The 312E/312E L 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 that meets EN 14214 standards.
- An overfill indicator rises when the fuel tank is full to help service technicians avoid spilling.
- The 312E/312E L is built to be rebuilt with major structures and components capable of being remanufactured to reduce waste and replacement costs.
- An efficient 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 312E/312E L is an efficient, productive machine.

312E/312E L Hydraulic Excavator Specifications

Engine

Engine Model	Cat C4.4 ACERT	
Net Power – ISO 14396	70 kW	94 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5.00 in
Displacement	4.4 L	269 in^3

Weights

Operating Weight	Minimum	Maximum
Standard	13 100 kg*	14 700 kg**

*Standard undercarriage, 4.65 m (15'3") reach boom, R2.5 (8'3"), 0.65 m^3 (0.85 yd^3) bucket and 500 mm (20") triple grouser shoes without blade.

**Standard undercarriage, 4.65 m (15'3") reach boom, R3.0 (9'10"), 0.65 m^3 (0.85 yd^3) bucket and 770 mm (30") triple grouser shoes with blade.

Operating Weight	Minimum	Maximum
Long	13 500 kg*	15 000 kg**

*Long undercarriage, 4.65 m (15'3") reach boom, R2.5 (8'3"), 0.65 m^3 (0.85 yd^3) bucket and 500 mm (20") triple grouser shoes without blade.

**Long undercarriage, 4.65 m (15'3") reach boom, R3.0 (9'10"), 0.65 m^3 (0.85 yd^3) bucket and 770 mm (30") triple grouser shoes with blade.

Hydraulic System

Main System – Maximum Flow (Total)	2 × 127 L/min	2 × 34 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,424 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	23 000 kPa	3,336 psi
Pilot System – Maximum Flow	21.9 L/min	1,336 in^3/min
Pilot System – Maximum Pressure	4120 kPa	598 psi
Boom Cylinder – Bore	110 mm	4 in
Boom Cylinder – Stroke	1015 mm	40 in
Stick Cylinder – Bore	120 mm	5 in
Stick Cylinder – Stroke	1197 mm	47 in
Bucket Cylinder – Bore	100 mm	4 in
Bucket Cylinder – Stroke	939 mm	37 in

Drive

Maximum Travel Speed	5.5 km/h	3.4 mph
Maximum Drawbar Pull	114 kN	25,628 lbf

Swing Mechanism

Swing Speed	11.5 rpm	
Swing Torque	30.9 kN·m	22,791 lbf-ft

Service Refill Capacities

Fuel Tank Capacity	250 L	66.04 gal
Cooling System	22 L	5.81 gal
Engine Oil (with filter)	13.5 L	3.57 gal
Swing Drive (each)	2.4 L	0.63 gal
Final Drive (each)	3 L	0.79 gal
Hydraulic System (including tank)	164 L	43.32 gal
Hydraulic Tank	90.6 L	23.93 gal

Track

Number of Shoes (each side)	
Standard Undercarriage	43 pieces
Long Undercarriage	46 pieces
Number of Track Rollers (each side)	
Standard Undercarriage	6 pieces
Long Undercarriage	7 pieces
Number of Carrier Rollers (each side)	
Standard Undercarriage	1 piece
Long Undercarriage	2 pieces

Sound Performance

Operator Noise (Closed) – ISO 6396	69 dB(A)
Spectator Noise – ISO 6395	100 dB(A)

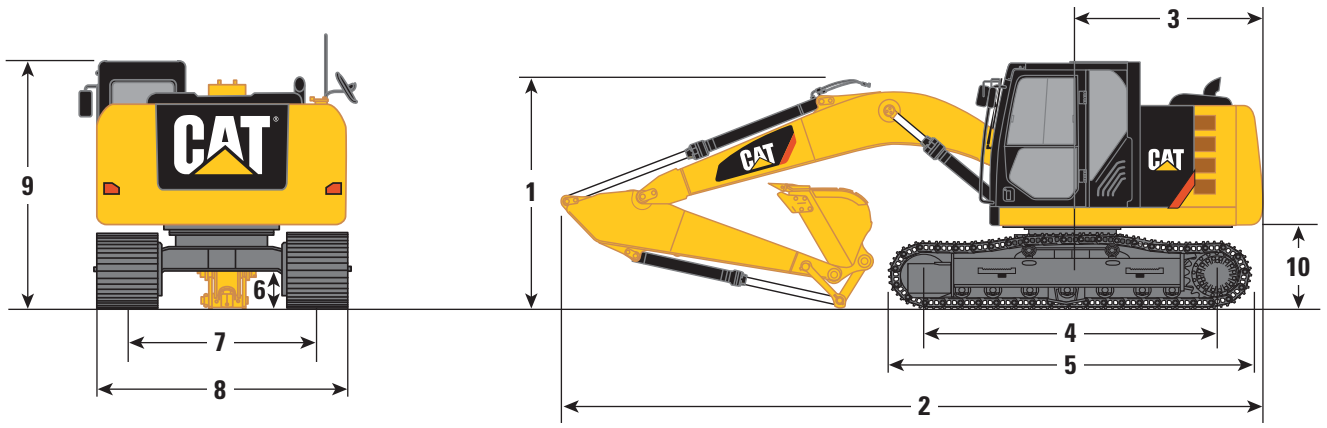
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating 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
ROPS Cab	ISO 12117-2
Cab/OPG	ISO 10262 1998

Dimensions

All dimensions are approximate.



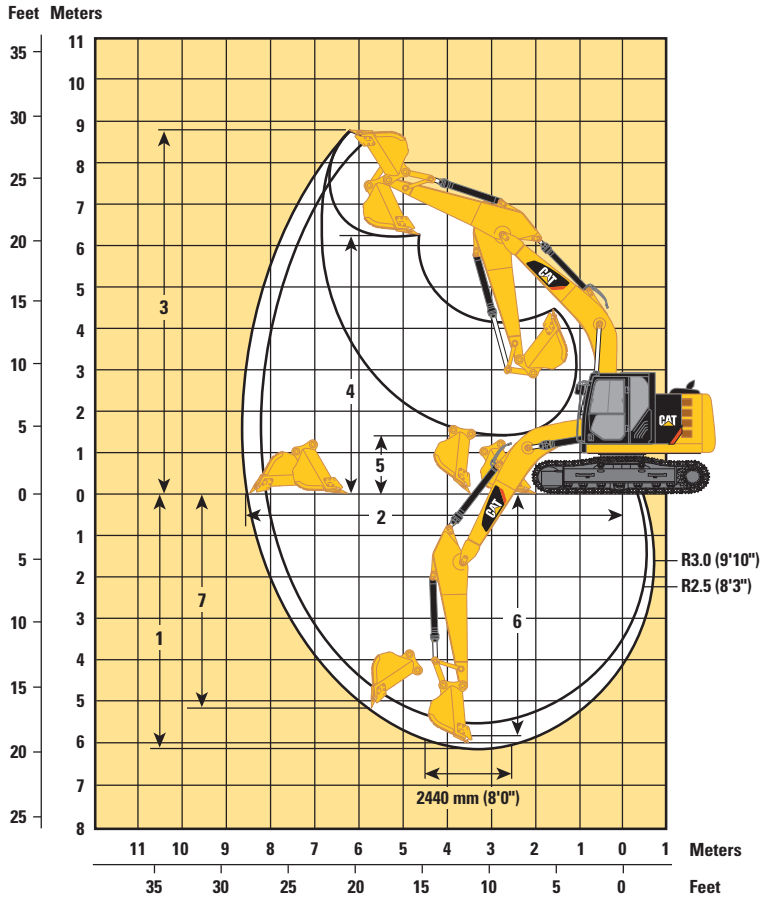
		Reach Boom 4.65 m (15'3")	
	Stick	**R3.0 (9'10")**	**R2.5 (8'3")**
1	Shipping Height*	2980 mm (9'9")	2980 mm (9'9")
	Shipping Height at Boom Top	2830 mm (9'3")	2830 mm (9'3")
	Shipping Height with Guard Rail	2980 mm (9'9")	2980 mm (9'9")
	Shipping Height with Top Guard	2970 mm (9'9")	2970 mm (9'9")
2	Shipping Length		
	Standard Undercarriage	7680 mm (25'2")	7670 mm (25'2")
	Long Undercarriage	7670 mm (25'2")	7670 mm (25'2")
	Standard Undercarriage with Blade	7900 mm (25'11")	7890 mm (25'11")
	Long Undercarriage with Blade	7960 mm (26'1")	7950 mm (26'1")
3	Tail Swing Radius	2160 mm (7'1")	2160 mm (7'1")
4	Length to Center of Rollers		
	Standard Undercarriage	2780 mm (9'1")	2780 mm (9'1")
	Long Undercarriage	3040 mm (10'0")	3040 mm (10'0")
5	Track Length		
	Standard Undercarriage	3490 mm (11'5")	3490 mm (11'5")
	Long Undercarriage	3750 mm (12'4")	3750 mm (12'4")
6	Ground Clearance	440 mm (1'5")	440 mm (1'5")
7	Track Gauge	1990 mm (6'6")	1990 mm (6'6")
8	Transport Width		
	500 mm (20") Shoes	2490 mm (8'2")	2490 mm (8'2")
	600 mm (24") Shoes	2590 mm (8'6")	2590 mm (8'6")
	700 mm (28") Shoes	2690 mm (8'10")	2690 mm (8'10")
	770 mm (30") Shoes	2760 mm (9'1")	2760 mm (9'1")
9	Cab Height	2770 mm (9'1")	2770 mm (9'1")
	Cab Height with Top Guard	2970 mm (9'9")	2970 mm (9'9")
10	Counterweight Clearance**	890 mm (2'11")	890 mm (2'11")

*Including shoe lug height.

**Without shoe lug height.

Working Ranges

All dimensions are approximate.



	Reach Boom 4.65 m (15'3")	
Stick	**R3.0 (9'10")**	**R2.5 (8'3")**
1 Maximum Digging Depth	6040 mm (19'10")	5540 mm (18'2")
2 Maximum Reach at Ground Level	8620 mm (28'3")	8170 mm (26'10")
3 Maximum Cutting Height	8710 mm (28'7")	8490 mm (27'10")
4 Maximum Loading Height	6330 mm (20'9")	6100 mm (20'0")
5 Minimum Loading Height	1530 mm (5'0")	2020 mm (6'8")
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5860 mm (19'3")	5330 mm (17'6")
7 Maximum Vertical Wall Digging Depth	5200 mm (17'1")	4840 mm (15'11")

Operating Weight and Ground Pressure

Standard Undercarriage without Blade

	770 mm (30") Triple Grouser Shoes				700 mm (28") Triple Grouser Shoes				600 mm (24") Triple Grouser Shoes				500 mm (20") Triple Grouser Shoes			
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
Reach Boom – 4.65 m (15'3")																
R3.0 (9'10")	13 800	30,430	29.0	4.21	13 700	30,210	31.7	4.59	13 500	29,770	36.4	5.28	13 200	29,110	42.7	6.20
R2.5 (8'3")	13 700	30,210	28.8	4.18	13 600	29,990	31.4	4.56	13 400	29,500	36.1	5.24	13 100	28,890	42.4	6.15

Long Undercarriage without Blade

	770 mm (30") Triple Grouser Shoes				700 mm (28") Triple Grouser Shoes				600 mm (24") Triple Grouser Shoes				500 mm (20") Triple Grouser Shoes			
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
Reach Boom – 4.65 m (15'3")																
R3.0 (9'10")	14 200	31,310	27.5	3.98	14 100	31,090	30.0	4.35	13 800	30,430	34.2	4.97	13 500	29,770	40.2	5.83
R2.5 (8'3")	14 100	31,090	27.3	3.97	14 000	30,870	29.8	4.32	13 700	30,210	34.1	4.94	13 500	29,770	40.2	5.83

Standard Undercarriage with Blade

	770 mm (30") Triple Grouser Shoes				700 mm (28") Triple Grouser Shoes				600 mm (24") Triple Grouser Shoes				500 mm (20") Triple Grouser Shoes			
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
Reach Boom – 4.65 m (15'3")																
R3.0 (9'10")	14 700	32,410	30.9	4.48	14 500	31,970	33.5	4.86	14 300	31,530	38.6	5.59	14 000	30,870	45.3	6.57
R2.5 (8'3")	14 600	32,190	30.7	4.45	14 400	31,750	33.3	4.83	14 200	31,310	38.3	5.55	14 000	30,870	45.3	6.57

Long Undercarriage with Blade

	770 mm (30") Triple Grouser Shoes				700 mm (28") Triple Grouser Shoes				600 mm (24") Triple Grouser Shoes				500 mm (20") Triple Grouser Shoes			
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
Reach Boom – 4.65 m (15'3")																
R3.0 (9'10")	15 000	33,080	29.0	4.21	14 900	32,850	31.7	4.60	14 600	32,190	36.2	5.26	14 400	31,750	42.9	6.22
R2.5 (8'3")	14 900	32,850	28.9	4.20	14 800	32,630	31.5	4.57	14 500	31,970	36.0	5.22	14 300	31,530	42.6	6.18

All weights are rounded up to nearest 100 kg (220 lb) including General Duty 0.65 m^3 (0.85 yd^3) bucket (470 kg [1,036 lb]).

Major Component Weights

Base Machine (with boom cylinder, without counterweight, front linkage and track)	5120 kg	11,290 lb
Undercarriage		
Long Undercarriage	2600 kg	5,730 lb
Standard Undercarriage	2380 kg	5,250 lb
Counterweight – 2.2 mt (2.4 t)	2200 kg	4,850 lb
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 4.65 m (15'3")	1010 kg	2,230 lb
Stick (includes lines, pins, bucket cylinder, and bucket linkage)		
R3.0 (9'10")	560 kg	1,230 lb
R2.5 (8'3")	480 kg	1,060 lb
Track Shoe (Standard/per one track)		
500 mm (20") Triple Grouser	1460 kg	3,220 lb
600 mm (24") Triple Grouser	1700 kg	3,750 lb
700 mm (28") Triple Grouser	1960 kg	4,320 lb
770 mm (30") Triple Grouser	2100 kg	4,630 lb
Track Shoe (Long/per one track)		
500 mm (20") Triple Grouser	1560 kg	3,440 lb
600 mm (24") Triple Grouser	1820 kg	4.010 lb
700 mm (28") Triple Grouser	2100 kg	4,630 lb
770 mm (30") Triple Grouser	2240 kg	4,940 lb
Blade		
2500 mm (98")	810 kg	1,790 lb
2600 mm (102")	810 kg	1,790 lb
2700 mm (106")	820 kg	1,810 lb

All weights are round up to nearest 10 kg and lb except for quick coupler and 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.

Bucket and Stick Forces

	Reach Boom 4.65 m (15'3")			
Stick	**R3.0 (9'10")**		**R2.5 (8'3")**	
General Duty Bucket				
Bucket Digging Force (ISO)	95 kN	21,400 lb	95 kN	21,400 lb
Stick Digging Force (ISO)	58 kN	13,100 lb	65 kN	14,700 lb
Heavy Duty Bucket				
Bucket Digging Force (ISO)	95 kN	21,400 lb	95 kN	21,400 lb
Stick Digging Force (ISO)	58 kN	13,100 lb	65 kN	14,700 lb
Severe Duty Bucket				
Bucket Digging Force (ISO)	95 kN	21,300 lb	95 kN	21,300 lb
Stick Digging Force (ISO)	58 kN	13,100 lb	65 kN	14,700 lb

312E Reach Boom Lift Capacities

 Load Point Height  Load at Maximum Reach  Load Radius Over Front  Load Radius Over Side

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R3.0 (9'10") **Shoes** – 770 mm (30") triple grouser with step **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m **ft**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,850**	2550 **5,450**			*2000 ***4,350**	*2000 ***4,350**	6.86 **22.50**
3.0 m **10.0 ft**	kg **lb**					*3850 ***8,350**	3800 **8,200**	3400 **7,300**	2450 **5,300**			*2000 ***4,350**	1800 **3,900**	7.36 **24.17**
1.5 m **5.0 ft**	kg **lb**			*7550 ***16,250**	6450 **13,900**	*4900 ***10,600**	3550 **7,650**	3250 **7,050**	2350 **5,050**	*2150	1700	*2050 ***4,550**	1700 **3,650**	7.52 **25.00**
Ground Line	kg **lb**			*7850 ***18,150**	6000 **12,900**	4800 **10,350**	3350 **7,200**	3150 **6,800**	2250 **4,850**			*2300 ***5,000**	1700 **3,700**	7.38 **24.17**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	9250 **19,750**	5900 **12,650**	4700 **10,100**	3250 **6,950**	3100 **6,700**	2200 **4,700**			2550 **5,650**	1850 **4,000**	6.91 **23.33**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,450**	5950 **12,750**	4700 **10,100**	3250 **7,000**	3150	2200			3100 **6,900**	2200 **4,900**	6.04 **20.00**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,650**	6150 **13,200**	*4050	3400					*4000 ***8,800**	3350 **7,650**	4.53 **15.00**

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R2.5 (8'3") **Shoes** – 770 mm (30") triple grouser with step **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m **ft**
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.38 **17.50**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	3450 ***7,100**	2500 **5,400**	*2250 ***4,950**	*2250 ***4,950**	6.37 **20.83**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3750 **8,100**	3400 **7,250**	2450 **5,250**	*2250 ***4,900**	1950 **4,350**	6.90 **23.33**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,100**	6350 **13,650**	5000 **10,800**	3550 **7,600**	3300 **7,050**	2350 **5,050**	*2350 ***5,100**	1850 **4,050**	7.08 **23.33**
Ground Line	kg **lb**			*6900 ***15,900**	6050 **12,950**	4850 **10,400**	3350 **7,250**	3200 **6,850**	2300 **4,900**	*2600 ***5,650**	1900 **4,100**	6.93 **23.33**
–1.5 m **–5.0 ft**	kg **lb**	*4850 ***10,900**	*4850 ***10,900**	*9200 ***19,950**	6000 **12,850**	4750 **10,200**	3300 **7,100**	3150 **6,800**	2250 **4,850**	2900 **6,350**	2050 **4,550**	6.43 **21.67**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8050 ***17,400**	6100 **13,050**	4800 **10,300**	3350 **7,150**			3650 **8,100**	2600 **5,750**	5.48 **18.33**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E/312E L Hydraulic Excavator Specifications

312E Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 4.65 m (15'3")
Stick – R3.0 (9'10")

Counterweight – 2.2 mt (2.4 t)
Shoes – 700 mm (28") triple grouser with step

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m **ft**
7.5 m **25.0 ft**	kg **lb**											*2550	*2550	4.37
6.0 m **20.0 ft**	kg **lb**											*2100 ***4,650**	*2100 ***4,650**	5.95 **19.26**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,900**	2500 **5,400**			*2000 ***4,350**	*2000 ***4,350**	6.86 **22.39**
3.0 m **10.0 ft**	kg **lb**					*3900 ***8,400**	3750 **8,100**	3350 **7,200**	2450 **5,200**			*2000 ***4,350**	1750 **3,850**	7.35 **24.09**
1.5 m **5.0 ft**	kg **lb**			*7600 ***16,250**	6400 **13,750**	*4950 ***10,650**	3500 **7,550**	3250 **6,950**	2350 **5,000**	*2150	1650	*2050 ***4,550**	1650 **3,650**	7.52 **24.67**
Ground Line	kg **lb**			*7850 ***18,150**	5950 **12,800**	4750 **10,250**	3300 **7,100**	3150 **6,750**	2250 **4,800**			*2300 ***5,000**	1650 **3,650**	7.38 **24.20**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	9150 **19,550**	5850 **12,500**	4650 **10,000**	3200 **6,900**	3100 **6,600**	2200 **4,650**			2550 **5,600**	1800 **3,950**	6.91 **22.63**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,500**	5900 **12,600**	4650 **10,000**	3200 **6,900**	3100	2200			3100 **6,800**	2200 **4,850**	6.04 **19.69**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,700**	6100 **13,100**	*4050	3350					*4000 ***8,800**	3350 **7,550**	4.53 **14.54**

Boom – 4.65 m (15'3")
Stick – R2.5 (8'3")

Counterweight – 2.2 mt (2.4 t)
Shoes – 700 mm (28") triple grouser with step

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m **ft**
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.37 **17.35**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	3400 ***7,100**	2500 **5,300**	*2250 ***4,950**	2250 ***4,950**	6.37 **20.77**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3750 **8,000**	3350 **7,150**	2450 **5,200**	*2250 ***4,900**	1950 **4,300**	6.90 **22.60**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,150**	6250 **13,500**	4950 **10,650**	3500 **7,550**	3250 **6,950**	2350 **5,000**	*2350 ***5,100**	1850 **4,050**	7.08 **23.22**
Ground Line	kg **lb**			*6900 ***15,950**	5950 **12,800**	4800 **10,250**	3350 **7,150**	3150 **6,800**	2250 **4,850**	*2600 ***5,650**	1850 **4,100**	6.93 **22.72**
–1.5 m **–5.0 ft**	kg **lb**	*4900 ***10,900**	*4900 ***10,900**	*9250 **19,800**	5950 **12,750**	4700 **10,100**	3250 **7,050**	3150 **6,700**	2250 **4,800**	2850 **6,300**	2050 **4,500**	6.42 **21.04**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8100 ***17,450**	6000 **12,950**	4750 **10,200**	3300 **7,100**			3600 **8,000**	2550 **5,700**	5.47 **17.83**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E Reach Boom Lift Capacities

 Load Point Height  Load at Maximum Reach  Load Radius Over Front  Load Radius Over Side

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None
Stick – R3.0 (9'10") **Shoes** – 600 mm (24") triple grouser **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m **ft**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,850**	2500 **5,300**			*2000 ***4,350**	1950 ***4,350**	6.86 **22.50**
3.0 m **10.0 ft**	kg **lb**					*3850 ***8,350**	3750 **8,000**	3300 **7,100**	2400 **5,150**			*2000 ***4,350**	1750 **3,800**	7.36 **24.17**
1.5 m **5.0 ft**	kg **lb**			*7550 ***16,250**	6300 **13,550**	*4900 **10,550**	3450 **7,450**	3200 **6,850**	2300 **4,900**	*2150	1650	*2050 ***4,550**	1650 **3,550**	7.52 **25.00**
Ground Line	kg **lb**			*7850 ***18,150**	5850 **12,550**	4700 **10,050**	3250 **7,000**	3100 **6,600**	2200 **4,700**			*2300 ***5,000**	1650 **3,600**	7.38 **24.17**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	9000 **19,200**	5750 **12,300**	4550 **9,800**	3150 **6,750**	3000 **6,500**	2150 **4,600**			2500 **5,500**	1800 **3,900**	6.91 **23.33**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,450**	5800 **12,400**	4600 **9,850**	3150 **6,800**	3050	2150			3000 **6,700**	2150 **4,750**	6.04 **20.00**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,650**	6000 **12,850**	*4050	3300					*4000 ***8,800**	3250 **7,450**	4.53 **15.00**

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None
Stick – R2.5 (8'3") **Shoes** – 600 mm (24") triple grouser **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m **ft**
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.38 **17.50**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	3350 ***7,100**	2450 **5,250**	*2250 ***4,950**	2200 **4,900**	6.37 **20.83**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3700 **7,900**	3300 **7,050**	2400 **5,150**	*2250 ***4,900**	1900 **4,200**	6.90 **23.33**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,100**	6150 **13,300**	4900 **10,500**	3450 **7,400**	3200 **6,850**	2300 **4,950**	*2350 ***5,100**	1800 **3,950**	7.08 **23.33**
Ground Line	kg **lb**			*6900 ***15,900**	5850 **12,600**	4700 **10,100**	3300 **7,050**	3100 **6,650**	2200 **4,750**	2550 **5,550**	1850 **4,000**	6.93 **23.33**
–1.5 m **–5.0 ft**	kg **lb**	*4850 ***10,900**	*4850 ***10,900**	9100 **19,450**	5850 **12,500**	4650 **9,950**	3200 **6,900**	3050 **6,600**	2200 **4,700**	2800 **6,150**	2000 **4,400**	6.43 **21.67**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8050 ***17,400**	5900 **12,700**	4650 **10,050**	3250 **7,000**			3550 **7,850**	2500 **5,600**	5.48 **18.33**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E/312E L Hydraulic Excavator Specifications

312E Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 4.65 m (15'3")
Stick – R3.0 (9'10")

Counterweight – 2.2 mt (2.4 t)
Shoes – 500 mm (20") triple grouser

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m ft
7.5 m **25.0 ft**	kg **lb**											*2550	*2550	4.37
6.0 m **20.0 ft**	kg **lb**											*2100 ***4,650**	*2100 ***4,650**	5.95 **19.26**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,900**	2450 **5,200**			*2000 ***4,350**	1950 **4,300**	6.86 **22.39**
3.0 m **10.0 ft**	kg **lb**					*3900 ***8,400**	3650 **7,850**	3250 **6,950**	2350 **5,050**			*2000 ***4,350**	1700 **3,750**	7.35 **24.09**
1.5 m **5.0 ft**	kg **lb**			*7600 ***16,250**	6200 **13,350**	4850 **10,400**	3400 **7,300**	3150 **6,700**	2250 **4,800**	*2150	1600	*2050 ***4,550**	1600 **3,500**	7.52 **24.67**
Ground Line	kg **lb**			*7850 ***18,150**	5750 **12,350**	4600 **9,900**	3200 **6,900**	3000 **6,500**	2150 **4,600**			2250 **4,950**	1600 **3,500**	7.38 **24.20**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	8850 **18,900**	5650 **12,100**	4500 **9,650**	3100 **6,650**	2950 **6,350**	2100 **4,500**			2450 **5,400**	1750 **3,850**	6.91 **22.63**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,500**	5700 **12,200**	4500 **9,650**	3100 **6,650**	3000	2100			2950 **6,600**	2100 **4,650**	6.04 **19.69**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,700**	5900 **12,650**	*4050	3250					*4000 ***8,800**	3200 **7,300**	4.53 **14.54**

Boom – 4.65 m (15'3")
Stick – R2.5 (8'3")

Counterweight – 2.2 mt (2.4 t)
Shoes – 500 mm (20") triple grouser

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m ft
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.37 **17.35**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	3300 **7,050**	2400 **5,150**	*2250 ***4,950**	2200 **4,800**	6.37 **20.77**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3600 **7,750**	3250 **6,950**	2350 **5,050**	*2250 ***4,900**	1900 **4,150**	6.90 **22.60**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,150**	6050 **13,050**	4800 **10,300**	3400 **7,300**	3150 **6,750**	2250 **4,850**	*2350 ***5,100**	1800 **3,900**	7.08 **23.22**
Ground Line	kg **lb**			*6900 ***15,950**	5750 **12,400**	4600 **9,900**	3200 **6,950**	3050 **6,550**	2200 **4,700**	2500 **5,500**	1800 **3,950**	6.93 **22.72**
–1.5 m **–5.0 ft**	kg **lb**	*4900 ***10,900**	*4900 ***10,900**	8950 **19,100**	5750 **12,300**	4550 **9,750**	3150 **6,800**	3000 **6,500**	2150 **4,600**	2750 **6,050**	2000 **4,350**	6.42 **21.04**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8100 ***17,450**	5850 **12,500**	4600 **9,850**	3200 **6,850**			3500 **7,750**	2500 **5,500**	5.47 **17.83**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E L Reach Boom Lift Capacities

 Load Point Height  Load at Maximum Reach  Load Radius Over Front  Load Radius Over Side

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R3.0 (9'10") **Shoes** – 770 mm (30") triple grouser with step **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m **ft**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,850**	2600 **5,550**			*2000 ***4,350**	*2000 ***4,350**	6.86 **22.50**
3.0 m **10.0 ft**	kg **lb**					*3850 ***8,350**	*3850 ***8,350**	*3450 ***7,500**	2500 **5,400**			*2000 ***4,350**	1800 **4,000**	7.36 **24.17**
1.5 m **5.0 ft**	kg **lb**			*7550 ***16,250**	6600 **14,250**	*4900 ***10,600**	3650 **7,850**	3750 **8,100**	2400 **5,150**	*2150	1750	*2050 ***4,550**	1700 **3,750**	7.52 **25.00**
Ground Line	kg **lb**			*7850 ***18,150**	6150 **13,250**	5650 **12,050**	3450 **7,400**	3650 **7,850**	2300 **4,950**			*2300 ***5,000**	1750 **3,800**	7.38 **24.17**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	*9300 ***20,200**	6050 **12,950**	5500 **11,800**	3350 **7,150**	3600 **7,700**	2250 **4,850**			*2700 ***5,900**	1900 **4,100**	6.91 **23.33**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,450**	6100 **13,050**	5500 **11,800**	3350 **7,150**	3600	2300			*3550 ***7,950**	2250 **5,000**	6.04 **20.00**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,650**	6300 **13,550**	*4050	3500					*4000 ***8,800**	3450 **7,850**	4.53 **15.00**

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R2.5 (8'3") **Shoes** – 770 mm (30") triple grouser with step **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m **ft**
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.38 **17.50**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	*3500 ***7,100**	2600 **5,500**	*2250 ***4,950**	*2250 ***4,950**	6.37 **20.83**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3850 **8,300**	*3750 ***8,200**	2500 **5,400**	*2250 ***4,900**	2000 **4,450**	6.90 **23.33**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,100**	6500 **13,950**	*5300 ***11,500**	3600 **7,800**	3750 **8,100**	2400 **5,200**	*2350 ***5,100**	1900 **4,150**	7.08 **23.33**
Ground Line	kg **lb**			*6900 ***15,900**	6200 **13,250**	5650 **12,100**	3450 **7,400**	3700 **7,900**	2350 **5,000**	*2600 ***5,650**	1950 **4,200**	6.93 **23.33**
–1.5 m **–5.0 ft**	kg **lb**	*4850 ***10,900**	*4850 ***10,900**	*9200 ***19,950**	6150 **13,150**	5550 **11,950**	3400 **7,250**	3650 **7,850**	2300 **4,950**	*3100 ***6,800**	2100 **4,650**	6.43 **21.67**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8050 ***17,400**	6250 **13,400**	*5500 ***11,800**	3400 **7,350**			*4200 ***9,200**	2650 **5,900**	5.48 **18.33**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E/312E L Hydraulic Excavator Specifications

312E L Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 4.65 m (15'3")
Stick – R3.0 (9'10")

Counterweight – 2.2 mt (2.4 t)
Shoes – 700 mm (28") triple grouser with step

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m ft
7.5 m **25.0 ft**	kg **lb**											*2550	*2550	4.37
6.0 m **20.0 ft**	kg **lb**											*2100 ***4,650**	*2100 ***4,650**	5.95 **19.26**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,900**	2550 **5,500**			*2000 ***4,350**	*2000 ***4,350**	6.86 **22.39**
3.0 m **10.0 ft**	kg **lb**					*3900 ***8,400**	3850 **8,300**	*3450 ***7,550**	2500 **5,350**			*2000 ***4,350**	1800 **3,950**	7.35 **24.09**
1.5 m **5.0 ft**	kg **lb**			*7600 ***16,250**	6550 **14,050**	*4950 ***10,650**	3600 **7,750**	3700 **8,000**	2400 **5,100**	*2150	1700	*2050 ***4,550**	1700 **3,750**	7.52 **24.67**
Ground Line	kg **lb**			*7850 ***18,150**	6100 **13,100**	5550 **11,950**	3400 **7,300**	3600 **7,750**	2300 **4,900**			*2300 ***5,000**	1700 **3,750**	7.38 **24.20**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	*9350 ***20,250**	6000 **12,850**	5450 **11,700**	3300 **7,100**	3550 **7,650**	2250 **4,800**			*2700 ***5,900**	1850 **4,100**	6.91 **22.63**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,500**	6050 **12,950**	5450 **11,700**	3300 **7,100**	3600	2250			3550 **7,900**	2250 **4,950**	6.04 **19.69**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,700**	6250 **13,400**	*4050	3450					*4000 ***8,800**	3400 **7,750**	4.53 **14.54**

Boom – 4.65 m (15'3")
Stick – R2.5 (8'3")

Counterweight – 2.2 mt (2.4 t)
Shoes – 700 mm (28") triple grouser with step

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m ft
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.37 **17.35**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	*3550 ***7,100**	2550 **5,450**	*2250 ***4,950**	*2250 ***4,950**	6.37 **20.77**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3800 **8,200**	*3750 **8,200**	2500 **5,350**	*2250 ***4,900**	2000 **4,400**	6.90 **22.60**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,150**	6400 **13,800**	*5350 ***11,500**	3600 **7,700**	3750 **8,000**	2400 **5,150**	*2350 ***5,100**	1900 **4,150**	7.08 **23.22**
Ground Line	kg **lb**			*6900 ***15,950**	6100 **13,150**	5550 **11,950**	3400 **7,350**	3650 **7,800**	2300 **4,950**	*2600 ***5,650**	1900 **4,200**	6.93 **22.72**
–1.5 m **–5.0 ft**	kg **lb**	*4900 ***10,900**	*4900 ***10,900**	*9250 ***20,000**	6100 **13,050**	5500 **11,800**	3350 **7,200**	3600 **7,750**	2300 **4,900**	*3100 ***6,800**	2100 **4,600**	6.42 **21.04**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8100 ***17,450**	6150 **13,250**	*5500 ***11,850**	3400 **7,300**			4150 ***9,250**	2650 **5,850**	5.47 **17.83**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E L Reach Boom Lift Capacities

 Load Point Height  Load at Maximum Reach  Load Radius Over Front  Load Radius Over Side

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R3.0 (9'10") **Shoes** – 600 mm (24") triple grouser **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m ft
7.5 m **25.0 ft**	kg **lb**											*2550	*2550	4.37
6.0 m **20.0 ft**	kg **lb**											*2100 ***4,650**	*2100 ***4,650**	5.95 **19.26**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,900**	2550 **5,400**			*2000 ***4,350**	*2000 ***4,350**	6.86 **22.39**
3.0 m **10.0 ft**	kg **lb**					*3900 ***8,400**	3800 **8,150**	*3450 ***7,550**	2450 **5,250**			*2000 ***4,350**	1750 **3,900**	7.35 **24.09**
1.5 m **5.0 ft**	kg **lb**			*7600 ***16,250**	6450 **13,850**	*4950 ***10,650**	3550 **7,600**	3650 **7,850**	2350 **5,000**	*2150	1700	*2050 ***4,550**	1650 **3,650**	7.52 **24.67**
Ground Line	kg **lb**			*7850 ***18,150**	6000 **12,850**	5450 **11,700**	3350 **7,150**	3550 **7,600**	2250 **4,800**			*2300 ***5,000**	1700 **3,700**	7.38 **24.20**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	*9350 ***20,250**	5850 **12,600**	5350 **11,450**	3250 **6,950**	3500 **7,500**	2200 **4,700**			*2700 ***5,900**	1800 **4,000**	6.91 **22.63**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,500**	5900 **12,700**	5350 **11,450**	3250 **6,950**	3500	2200			3500 **7,750**	2200 **4,850**	6.04 **19.69**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,700**	6100 **13,150**	*4050	3400					*4000 ***8,800**	3350 **7,600**	4.53 **14.54**

Boom – 4.65 m (15'3") **Counterweight** – 2.2 mt (2.4 t) **Bucket** – None

Stick – R2.5 (8'3") **Shoes** – 600 mm (24") triple grouser **Blade** – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m ft
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.37 **17.35**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	*3550 ***7,100**	2500 **5,350**	*2250 ***4,950**	*2250 ***4,950**	6.37 **20.77**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3750 **8,050**	3750 **8,050**	2450 **5,250**	*2250 ***4,900**	1950 **4,300**	6.90 **22.60**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,150**	6300 **13,550**	*5350 ***11,500**	3500 **7,550**	3650 **7,850**	2350 **5,050**	*2350 ***5,100**	1850 **4,050**	7.08 **23.22**
Ground Line	kg **lb**			*6900 ***15,950**	6000 **12,900**	5450 **11,750**	3350 **7,200**	3550 **7,650**	2250 **4,900**	*2600 ***5,650**	1850 **4,100**	6.93 **22.72**
–1.5 m **–5.0 ft**	kg **lb**	*4900 ***10,900**	*4900 ***10,900**	*9250 ***20,000**	5950 **12,800**	5400 **11,600**	3300 **7,050**	3550 **7,600**	2250 **4,800**	*3100 ***6,800**	2050 **4,550**	6.42 **21.04**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8100 ***17,450**	6050 **13,000**	5450 **11,650**	3300 **7,150**			4100 **9,100**	2600 **5,700**	5.47 **17.83**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E/312E L Hydraulic Excavator Specifications

312E L Reach Boom Lift Capacities

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

Boom – 4.65 m (15'3")
Stick – R3.0 (9'10")

Counterweight – 2.2 mt (2.4 t)
Shoes – 500 mm (20") triple grouser

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft		7.5 m/25 ft				
														m ft
7.5 m **25.0 ft**	kg **lb**											*2550	*2550	4.37
6.0 m **20.0 ft**	kg **lb**											*2100 ***4,650**	*2100 ***4,650**	5.95 **19.26**
4.5 m **15.0 ft**	kg **lb**							*3150 ***6,900**	2500 **5,350**			*2000 ***4,350**	2000 ***4,350**	6.86 **22.39**
3.0 m **10.0 ft**	kg **lb**					*3900 ***8,400**	3750 **8,050**	*3450 ***7,550**	2400 **5,150**			*2000 ***4,350**	1750 **3,800**	7.35 **24.09**
1.5 m **5.0 ft**	kg **lb**			*7600 ***16,250**	6350 **13,600**	*4950 ***10,650**	3500 **7,500**	3600 **7,700**	2300 **4,950**	*2150	1650	*2050 ***4,550**	1650 **3,600**	7.52 **24.67**
Ground Line	kg **lb**			*7850 ***18,150**	5900 **12,650**	5350 **11,500**	3300 **7,050**	3500 **7,450**	2200 **4,750**			*2300 ***5,000**	1650 **3,600**	7.38 **24.20**
–1.5 m **–5.0 ft**	kg **lb**	*4500 ***10,050**	*4500 ***10,050**	*9350 ***20,250**	5750 **12,350**	5250 **11,250**	3200 **6,800**	3400 **7,350**	2150 **4,600**			*2700 ***5,900**	1800 **3,950**	6.91 **22.63**
–3.0 m **–10.0 ft**	kg **lb**	*7500 ***16,850**	*7500 ***16,850**	*8550 ***18,500**	5800 **12,500**	5250 **11,250**	3200 **6,850**	3450	2200			3400 **7,600**	2150 **4,800**	6.04 **19.69**
–4.5 m **–15.0 ft**	kg **lb**			*6450 ***13,700**	6000 **12,950**	*4050	3300					*4000 ***8,800**	3300 **7,500**	4.53 **14.54**

Boom – 4.65 m (15'3")
Stick – R2.5 (8'3")

Counterweight – 2.2 mt (2.4 t)
Shoes – 500 mm (20") triple grouser

Bucket – None
Blade – No Blade/Blade up

		1.5 m/5 ft		3.0 m/10 ft		4.5 m/15 ft		6.0 m/20 ft				
												m ft
6.0 m **20.0 ft**	kg **lb**					*3350 ***7,450**	*3350 ***7,450**			*2450 ***5,400**	*2450 ***5,400**	5.37 **17.35**
4.5 m **15.0 ft**	kg **lb**					*3550 ***7,750**	*3550 ***7,750**	*3550 ***7,100**	2450 **5,250**	*2250 ***4,950**	2250 **4,950**	6.37 **20.77**
3.0 m **10.0 ft**	kg **lb**			*5850 ***12,500**	*5850 ***12,500**	*4350 ***9,400**	3700 **7,950**	3700 **7,950**	2400 **5,150**	*2250 ***4,900**	1950 **4,250**	6.90 **22.60**
1.5 m **5.0 ft**	kg **lb**			*8450 ***18,150**	6200 **13,350**	*5350 ***11,500**	3450 **7,450**	3600 **7,700**	2300 **4,950**	*2350 ***5,100**	1800 **4,000**	7.08 **23.22**
Ground Line	kg **lb**			*6900 ***15,950**	5900 **12,700**	5400 **11,550**	3300 **7,100**	3500 **7,550**	2250 **4,800**	*2600 ***5,650**	1850 **4,050**	6.93 **22.72**
–1.5 m **–5.0 ft**	kg **lb**	*4900 ***10,900**	*4900 ***10,900**	*9250 ***20,000**	5850 **12,600**	5300 **11,350**	3250 **6,950**	3500 **7,450**	2200 **4,750**	*3100 ***6,800**	2000 **4,450**	6.42 **21.04**
–3.0 m **–10.0 ft**	kg **lb**	*8750 ***19,750**	*8750 ***19,750**	*8100 ***17,450**	5950 **12,800**	5350 **11,450**	3250 **7,050**			4000 **8,900**	2550 **5,600**	5.47 **17.83**

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads meet 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.

312E Work Tool Offering Guide*

Boom Type	Reach Boom	
Stick Size	**R3.0 (9'10")**	**R2.5 (8'3")**
Hydraulic Hammer	H95Es H110Es H115Es	H95Es H110Es H115Es
Demolition and Sorting Grapple	G310B** #	G310B**
Mobile Scrap and Demolition Shear	S320B##	S320B##
Compactor (Vibratory Plate)	CVP75	CVP75
Contractors' Grapple	G112B	G112B
Orange Peel Grapple	These work tools are available for the 312E. Consult your Cat dealer for proper match.	
Trash Grapple		
Thumbs		
Rakes		
Center-Lock Pin Grabber Coupler		
Dedicated Quick Coupler		

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

**Pin-on only.

#Over the front only.

##Boom mount.

312E L Work Tool Offering Guide*

Boom Type	Reach Boom	
Stick Size	**R3.0 (9'10")**	**R2.5 (8'3")**
Hydraulic Hammer	H95Es H110Es H115Es	H95Es H110Es H115Es
Demolition and Sorting Grapple	G310B** #	G310B*** ###
Mobile Scrap and Demolition Shear	S320B##	S320B##
Compactor (Vibratory Plate)	CVP75	CVP75
Contractors' Grapple	G112B	G112B
Orange Peel Grapple	These work tools are available for the 312E. Consult your Cat dealer for proper match.	
Trash Grapple		
Thumbs		
Rakes		
Center-Lock Pin Grabber Coupler		
Dedicated Quick Coupler		

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

**Pin-on only.

***Pin-on or CW coupler.

#Over the front only.

##Boom mount.

###Over the front only with CW coupler.

312E/312E L Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Width		Capacity		Weight		Fill	312E Reach Boom		312E L Reach Boom	
	mm	in	m^3	yd^3	kg	lb	%	R3.0 (9'10")	R2.5 (8'3")	R3.0 (9'10")	R2.5 (8'3")
With Centerlock Quick Coupler											
General Duty (GD)	450	18	0.20	0.27	235	518	100%	●	●	●	●
	500	20	0.24	0.31	285	628	100%	●	●	●	●
	600	24	0.31	0.40	308	679	100%	●	●	●	●
	750	30	0.41	0.54	355	783	100%	●	●	●	●
	900	36	0.53	0.69	404	890	100%	◉	●	◉	●
	1050	42	0.65	0.84	452	996	100%	⊖	⊖	⊖	◉
	1200	48	0.76	1.00	492	1084	100%	○	○	○	⊖
						Maximum load pin-on (payload + bucket)	kg	1379	1469	1429	1644
							lb	3,040	3,238	3,150	3,624

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

Capacity based on ISO 7451.

Bucket weight with Long tips.

Densities with 3.0 m (9'10") thumb stick do not consider thumb weight.

Maximum Material Density:

- ● 2100 kg/m^3 (3,500 lb/yd^3)
- ◉ 1800 kg/m^3 (3,000 lb/yd^3)
- ⊖ 1500 kg/m^3 (2,500 lb/yd^3)
- ○ 1200 kg/m^3 (2,000 lb/yd^3)

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

- C4.4 ACERT diesel engine
- Biodiesel capable
- Meets EU Stage IIIB and U.S. EPA Tier 4 Interim emission standards
- 2300 m (7,546') altitude capability
- Quick drains, engine and hydraulic oil
- Electric priming pump
- Automatic engine speed control
- 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
- Secondary filter
- Screen filter in fuel line

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 and stick lowering control device

CAB

- Seat, high-back air suspension with heater and cooling
- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Windshield wiper, lower with washer
- Coat hook
- Beverage holder
- Literature holder
- Two 12V stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with indicators, 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
- Sunscreen
- Travel alarm
- Level sensor
- Cab mirror

UNDERCARRIAGE

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

COUNTERWEIGHT

- 2.2 mt (2.4 t)

ELECTRICAL

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

LIGHTS

- Halogen boom light (left side)
- Time delay function for boom light and cab light
- 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
- Guard rail

Optional Equipment

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

ENGINE
- Radiator screen
- Cold weather battery –25° C (–13° F)
- Air pre-filter

HYDRAULIC SYSTEM
- Auxiliary hydraulics
- Boom and stick lines
- High-pressure line
- Medium-pressure line
- Cat quick coupler line – high-pressure capable
- Cat Bio hydraulic oil
- Pattern changer, 2 way

CAB
- Left pedal
- Ashtray
- Rain protector

UNDERCARRIAGE
- 500 mm (20") triple grouser shoes
- 600 mm (24") triple grouser shoes
- 700 mm (28") triple grouser shoes
- 770 mm (30") triple grouser shoes
- Rubber pad for 500 mm (20") triple grouser shoes
- Guard, heavy-duty bottom
- Center track guiding guard
- Segmented (2 piece) track guiding guard
- 2500 mm (98") blade with replaceable cutting edge
- 2600 mm (102") blade with replaceable cutting edge
- 2700 mm (106") blade with replaceable cutting edge

FRONT LINKAGE
- Quick coupler
- 4.65 m (15'3") reach boom
- 2.5 m (8'2") stick
- 3.0 m (9'10") stick
- 3.0 m (9'10") stick with Cat Grade Control

LIGHTS
- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay
- Halogen boom lights (right side)

SECURITY
- FOGS, bolt-on
- Vandalism guard
- Guard, cab front, mesh
- Side steel bumper

TECHNOLOGY
- Cat Grade Control Depth and Slope
- Product Link

Notes

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

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(ANZ)

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