

Volvo Construction Equipment
Building Tomorrow



EC300E

Volvo Excavators 31.3-36.8 t / 68,950-81,230 lb 253 hp



WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

Working harder, working smarter

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.



Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

BUILDING TOMORROW

Giving you more

The new and enhanced EC300E is packed with the latest technology to help you move more, for less. Features including the new Volvo engine, improved hydraulics, flow priority functions and optional Dig Assist apps deliver optimum productivity, efficiency and performance for a lower cost per ton.

More productivity

Get more done in the EC300E. An increase in engine power and improved hydraulic performance contributes to faster cycle times, while a 700 kg (1,542 lb) heavier counterweight provides superb stability and a 5% increase in across lifting capacity. Machine productivity is further enhanced by new motion priority functions, boom down speed control and improved jack up speed.



More precision

Unlock the full potential of your machine's productivity with Dig Assist, powered by the 10" Volvo Co-Pilot display. Gain access to a set of smart apps, including Start, In-Field Design, 3D software packages, On-Board Weighing and Volvo Active Control, designed to optimize the digging process.



More control

Double your productivity with Volvo Active Control functions. The working day just got easier with automated boom and bucket movements, making the digging process more accurate and twice as fast. Simply set the grade from the Volvo Co-Pilot display, push the button and get to work – all controlled using a single lever.



More responsiveness

With electric control joystick and full electric travel pedals, operators benefit from an improved response time. Machine controllability is enhanced further by Boom/Swing and Boom/Travel priority functions which enable operators to prioritize one function over another. Operators can also easily adjust the boom down speed, ideal for precision tasks which require optimum control.





MORE FUEL EFFICIENCY

A range of features combine in the EC300E to deliver up to 10% improvement in fuel efficiency. The new D8M Volvo engine reduces rated rpm from 1800 down to 1600, while also delivering a 5% increase in power, and the intelligent new generation electro-hydraulic system provides on-demand flow and reduces internal losses in the hydraulic circuit. Classic Volvo features such as ECO mode and selectable work modes further contribute to outstanding fuel efficiency.



SAFETY, INSIDE AND OUT

Operators can access the upper structure with safety and confidence thanks to the new 3-point right-hand side access. Industry renowned features such as bolted anti-slip steps, high visibility handrails and spacious, ergonomic and low-noise Volvo Care Cab ensure the highest levels of operator comfort and safety.

For your comfort and safety

With a host of new and proven features including enhanced machine access, superior visibility, bouncing reduction technology and customizable settings, the upgraded EC300E delivers all the safety and comfort you would expect from your Volvo machine.

Know your limits

With Volvo Active Control, operators can easily set swing fence, height limit and depth limit from the Volvo Co-Pilot. This helps to avoid contact with side obstacles, overhead obstacles such as power lines and underground hazards such as pipes and cables.



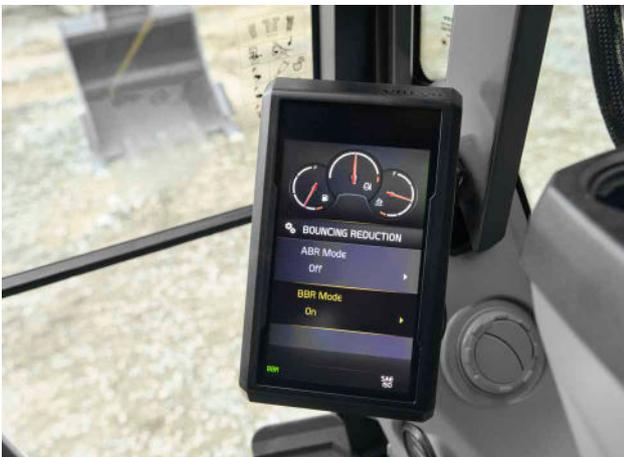
See it all

Operators can work in complete confidence thanks to Volvo Smart View. The system uses front, rear and side cameras to provide a real-time, overhead view of the machine during operation on the colour monitor. The result is safer machine rotation while working, especially in confined spaces.



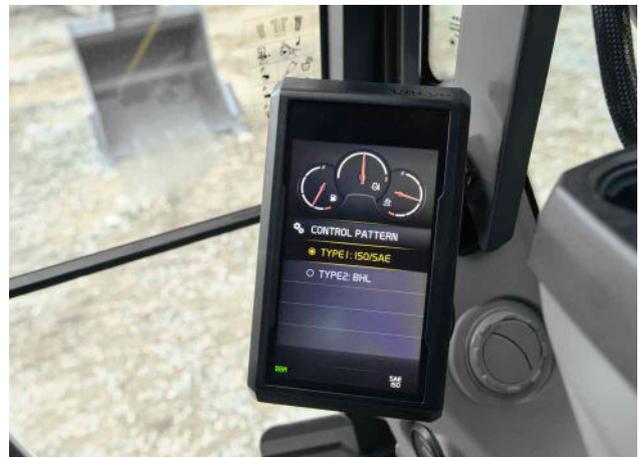
A smoother shift

New boom and arm bouncing reduction technology reduces machine shock, resulting in a more comfortable and productive operator performance. Comfort Drive Control further helps to reduce fatigue by enabling operators to steer the machine using the joystick rollers instead of the pedals.



How you like it

Get ready for the working day in no time with customizable settings, including preferred control patterns easily selected from the monitor. New 'long push' functionality on the joystick allows operators to set an additional shortcut function, and with the L8 joystick operators can create a shortcut to hydraulic priority functions.

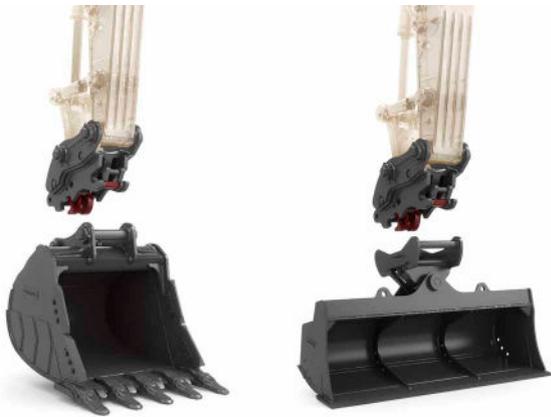


Boost versatility

Get the most out of your excavator with our range of purpose-built attachments, designed to work in perfect harmony with your machine. Customize your EC300E with quality Volvo attachments, matched to your needs, to form one solid and reliable unit that delivers improved cycle times and increased fuel efficiency.

Buckets of productivity

Volvo buckets are the perfect tool to achieve maximum productivity when digging and re-handling in all conditions. Whether you are working with soft, medium or hard materials, our buckets deliver long life and feature original Volvo wear parts. Heavy-Duty variants provide optimum performance when digging in compact materials.



Take a break

Available with a full range of tools, the hydraulic breakers are designed to be a perfect match for your Volvo. Powered by the machine's constant auxiliary hydraulic flow, the breakers are configured to the specific weights of Volvo machines and are fully compatible with Volvo quick couplers for swift, safe and simple attachment changes.



Dig at any angle

Boost productivity and dig at any angle. Compatibility with Steelwrist®, Engcon® and Rototilt® tiltrotators provides the flexibility needed for precise construction jobs. The factory-fitted preparation system gives you the power to control both the excavator and tiltrotator using the original joysticks, with the information presented on the main display.



Stay cool

A new cooling layout increases hydraulic attachment cooling capacity by 10%, resulting in an improved attachment performance.



Steelwrist® : Steelwrist is a registered trademark of Steelwrist AB / Engcon® : Engcon is a registered trademark of Engcon Holding AB / Rototilt® : Rototilt is a registered trademark of Rototilt Group AB



EASY TO ATTACH

Discover our range of Volvo quick couplers, including the new Steelwrist® Auto Connect Quick Coupler – enabling the quick and easy connection of hydraulic attachments from the comfort and safety of the cab. The quick coupler delivers 300 liters (79 gallons) per minute of hydraulic flow directly to the attachment.



POWERED BY EXCELLENCE

With impressively high torque at low rpm, the new D8M Volvo engine builds on generations of proven Volvo engine technology to deliver superior reliability and performance. The engine features auto-regeneration technology, while auto-engine idle and auto-engine shutdown reduce unnecessary fuel consumption and wear.

Lower maintenance costs

Durable by design, the new EC300E is ready to take on the toughest applications. The machine delivers outstanding levels of reliability and with features including engine auto-regeneration, reinforced components and reduced maintenance requirements, you can count on the EC300E to maximize uptime while keeping maintenance costs to a minimum.

Less service requirements

The new electro-hydraulic system requires less hoses, therefore reducing the need for couplings, minimizing maintenance requirements and increasing reliability. Engine oil and engine oil filter change intervals have been doubled to 1000 hours, further ensuring the time and cost spent on maintenance is kept to a minimum.



Easier DEF filling

The new splash guard on the DEF tank makes filling quicker and easier, while also reducing the risk of spillage and subsequent corrosion.



Up to the challenge

Built to deliver outstanding strength and durability, this heavy-duty production machine features a robust undercarriage with reinforced idle frame, track links and bottom rollers. Reinforced bucket linkage with steel strip, optional heavy-duty superstructure undercover and easily replaced bolt-on wear plates at the arm end ensure the excavator succeeds even on the toughest of jobsites.



Boost your profits

A world-class machine is just the start of how Volvo strives to add value you to your operation. Our portfolio of services is designed to complement your machine's performance and boost your profitability.

Every part counts

Maintain productivity and machine uptime with our range of readily available, tested and approved parts – all backed by Volvo warranty. Only by using Genuine Volvo Parts, can you protect your investment, extend machine life and guarantee long-lasting performance.



Maintain performance

Stay on track with planned servicing and keep your asset covered with our range of flexible maintenance and repair options.



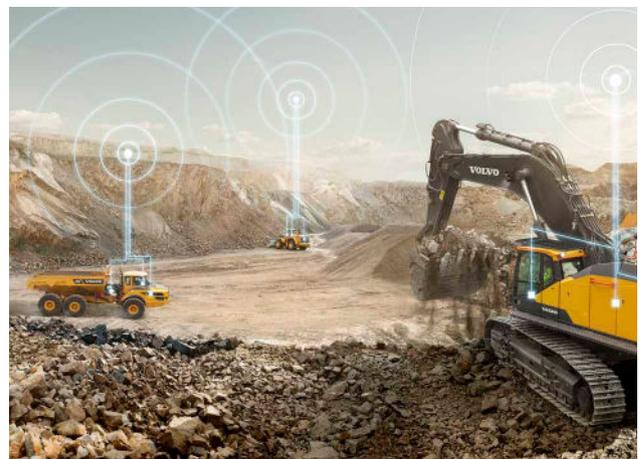
Powerful reporting

Keep track of your fleet with a comprehensive portfolio of reports, designed to help you take action and boost the profitability of your business. Powered by the CareTrack telematics system, Productivity Report, Fuel Efficiency Report & Summary Report each provide an easy-to-digest overview of your machine's condition and performance.



Machine monitoring made easy

Maximize machine uptime and reduce repair costs with the CareTrack telematic system. Choose to keep track of your machine yourself or let us take care of it with ActiveCare Direct. Our Volvo Uptime Center will provide 24/7 machine monitoring, supplying weekly reports and notifying you should preventive maintenance action be required.





GET THE MOST FROM YOUR MACHINE

While reliable and efficient machines of course play a vital role in reducing costs, enhancing safety and maximizing productivity, it is ultimately the performance of the operator that really makes the difference. We offer a wide range of training initiatives to help operators unlock the full capability of their Volvo excavator.

Move more for less

Boost versatility

- Steelwrist® Auto Connect Quick Coupler **NEW**
- Factory-fitted preparation for Steelwrist®, Engcon®, Rototilt® tiltrotator control systems **NEW**
- 10% more hydraulic attachment cooling capacity **NEW**
- Range of matched Volvo buckets and breakers
- Attachment Management System: 32 attachments stored

BOOST YOUR PRODUCTIVITY

- 700kg (1,542 lb) heavier counterweight: 5% increase in across lifting capacity **NEW**
- Improved response time **NEW**
- Boom/Swing and Boom/Travel priority **NEW**
- Adjustable boom down speed **NEW**
- Dig Assist apps, powered by Volvo Co-Pilot
- Volvo Active Control: double your productivity



UP TO 10% BETTER FUEL EFFICIENCY

- Volvo D8M engine **NEW**
- New generation electro-hydraulic system **NEW**
- ECO mode
- Selectable work modes
- Boom float function
- Auto-engine idle and shutdown

For a dramatic improvement in fuel efficiency, look no further than the EC300E Hybrid.



LOWER MAINTENANCE COSTS

- Less hydraulic hoses: reduced need for couplings/oil **NEW**
- Splash guard on the DEF tank **NEW**
- 1000hr engine oil and engine oil filter change intervals **NEW**
- Engine auto-regeneration **NEW**
- Grouped filters, accessed from ground-level
- Reinforced idle frame, track links, bottom rollers

SAFETY, INSIDE AND OUT

- 3-point right-hand side access to the upper structure **NEW**
- Bolted anti-slip steps, high visibility handrails
- ROPS cab, low-noise/vibration
- Rear and side cameras, Volvo Smart View
- Swing fence, height/depth limits functions (Volvo Active Control)

COMFORTABLE OPERATION

- Boom and arm bouncing reduction **NEW**
- Comfort Drive Control: joysticks steering **NEW**
- Additional 'long push' shortcut button **NEW**
- Selectable control pattern
- Volvo Care Cab: highest levels of comfort

Volvo Services: boost your profits

- Operator training program
- Productivity Report, Fuel Efficiency Report, Summary Report
- ActiveCare Direct: 24/7 machine monitoring
- Genuine Volvo Parts, with 24-hour delivery guarantee
- Maintenance and repair agreements

Volvo EC300E in detail

Engine

The next-generation Volvo diesel engine uses Volvo Advanced Combustion Technology (V-ACT) to deliver lower emissions, superior performance and fuel efficiency. The engine uses precise, high-pressure fuel injectors, turbo charger and intercooler, and electronic engine controls to optimize machine performance.

Engine	Volvo	D8M
Max power at	r/min (r/s)	1,600 (26.7)
Net, ISO 9249/SAE J1349	kW (hp)	188 (252)
Gross, ISO 14396/SAE J1995	kW (hp)	189 (253)
Max torque	Nm (ft lbf)	1,290 (951)
at engine speed	r/min (r/s)	1,400 (23.3)
No. of cylinders		6
Displacement	l (in ³)	7.7 (470)
Bore	mm (in)	110 (4.33)
Stroke	mm (in)	135 (5.3)

Electrical system

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. The master switch is standard.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	170
Alternator	V/A	28 / 80
Start motor	V - kW	24 - 5.5

Undercarriage

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.

Track shoes		2 x 50
Link pitch	mm (in)	203.2 (7.9)
Shoe width	mm (in)	600 / 700 / 800 / 900 (23.6 / 27.6 / 31.5 / 35.4)
Shoe width, triple grouser	mm (in)	600 / 700 / 800 / 900 (23.6 / 27.6 / 31.5 / 35.4)
Shoe width, triple grouser (HD)	mm (in)	600 (23.6)
Shoe width, double grouser	mm (in)	700 (27.6)
Bottom rollers		2 x 9
Top rollers		2 x 2

Swing system

The swing system uses an axial piston motors, driving a planetary gearbox for maximum torque. An automatic holding brake and anti-rebound valve are standard.

Max. slew speed	r/min	11
Max. slew torque	kNm (ft lbf)	114.8 (84,655)

Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected within the track frame.

Max. drawbar pull	kN (lbf)	248 (55,663)
Max. travel speed (low)	km/h (mi/h)	3.6 (2.2)
Max. travel speed (high)	km/h (mi/h)	5.4 (3.4)
Gradeability	°	35

Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO₂-eq.

Hydraulic system

The hydraulic system, also known as the "Automatic Sensing Work Mode," is designed for high-productivity, high-digging capacity, high-maneuvering precision and excellent fuel economy. The summation system, boom, arm and swing priority along with boom, arm and bucket regeneration provides optimum performance.

Main pump, Type 2 x Variable displacement axial piston pumps

Maximum flow	l/min (gal/min)	2 x 276 (2 x 72.9)
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Pilot pump, Type Gear Pump

Maximum flow	l/min (gal/min)	20.3 (5.4)
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Relief value setting pressure

Implement	MPa (psi)	33.3 / 36.3 (4,830 / 5,265)
Travel circuit	MPa (psi)	36.3 (5,265)
Slew circuit	MPa (psi)	28.9 (4,192)
Pilot circuit	MPa (psi)	3.9 (566)

Hydraulic Motors

Travel: Variable displacement axial piston motor with mechanical brake

Swing: Fixed displacement piston motor with mechanical brake

Hydraulic Cylinders

Mono boom		2
Bore x Stroke	ø x mm (ø x in)	140 x 1 480 (5.5 x 58.3)
2 piece boom		2
Bore x Stroke	ø x mm (ø x in)	140 x 1 480 (5.5 x 58.3)
Arm		1
Bore x Stroke	ø x mm (ø x in)	150 x 1 745 (5.9 x 68.7)
Bucket		1
Bore x Stroke	ø x mm (ø x in)	140 x 1 140 (5.5 x 44.9)
Bucket for LR boom		1
Bore x Stroke	ø x mm (ø x in)	100 x 865 (3.9 x 34.1)

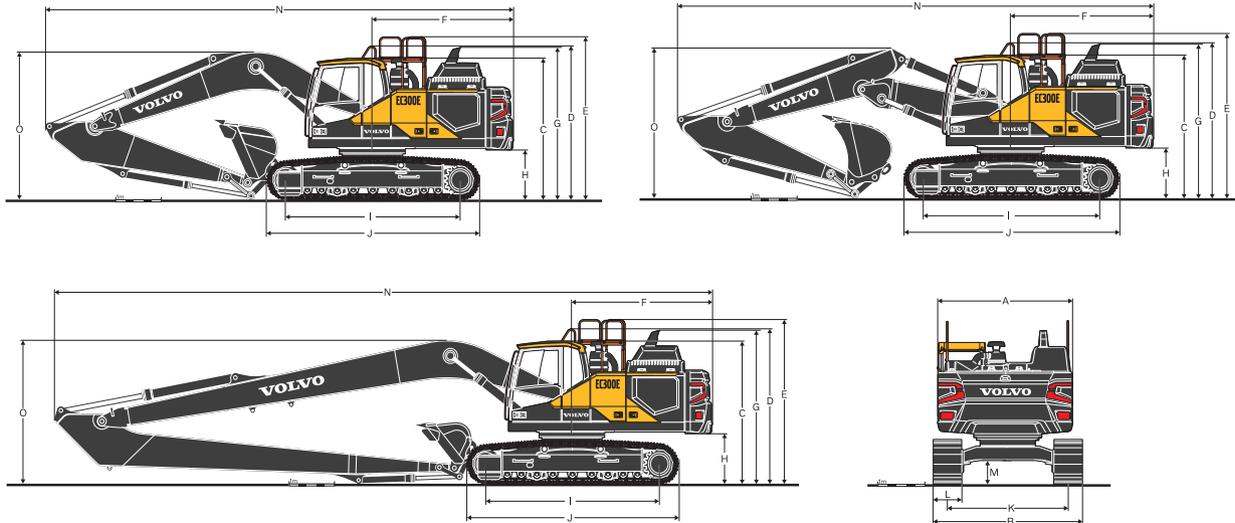
Service Refill

Fuel tank	l (gal)	472 (124.7)
DEF/AdBlue® tank	l (gal)	50 (13)
Hydraulic system, total	l (gal)	385 (101.7)
Hydraulic tank	l (gal)	215 (56.8)
Engine oil	l (gal)	30 (7.9)
Engine coolant	l (gal)	44 (12)
Slew reduction unit	l (gal)	6.1 (1.6)
Travel reduction unit	l (gal)	2 x 6 (2 x 1.6)

Sound Level

Sound pressure level in cab according to ISO 6396		
L _{pA}	dB	70
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L _{WA}	dB	104

Specifications



Description	Unit		EC300EL										EC300ELR					
			6.2, 20'4"				6.2, 20'4" 2-piece						10.2, 33'6"					
Boom	m, ft in		2.55	8'4"	3.05	10'0"	3.7	12'2"	2.55	8'4"	3.05	10'0"	3.7	12'2"	7.9	25'11"		
Arm	m, ft in																	
A. Overall width of upper structure	mm	ft in	2,890	9'6"	2,890	9'6"	2,890	9'6"	2,890	9'6"	2,890	9'6"	2,890	9'6"	2,890	9'6"		
B. Overall width	mm	ft in	3,190	10'6"	3,190	10'6"	3,190	10'6"	3,190	10'6"	3,190	10'6"	3,190	10'6"	3,190	10'6"		
C. Overall height of cab	mm	ft in	3,110	10'2"	3,110	10'2"	3,110	10'2"	3,110	10'2"	3,110	10'2"	3,110	10'2"	3,110	10'2"		
D. Overall height of handrail	mm	ft in	3,360	11'0"	3,360	11'0"	3,360	11'0"	3,360	11'0"	3,360	11'0"	3,360	11'0"	3,360	11'0"		
E. Overall height of guardrail (Unfolded)	mm	ft in	3,570	11'9"	3,570	11'9"	3,570	11'9"	3,570	11'9"	3,570	11'9"	3,570	11'9"	3,570	11'9"		
E'. Overall height of handrail/guardrail (Folded)	mm	ft in	3,090	10'2"	3,090	10'2"	3,090	10'2"	3,090	10'2"	3,090	10'2"	3,090	10'2"	3,090	10'2"		
F. Tail swing radius	mm	ft in	3,120	10'3"	3,120	10'3"	3,120	10'3"	3,120	10'3"	3,120	10'3"	3,120	10'3"	3,155	10'4"		
G. Overall height of diffuser	mm	ft in	3,200	10'6"	3,200	10'6"	3,200	10'6"	3,200	10'6"	3,200	10'6"	3,200	10'6"	3,200	10'6"		
H. Counterweight clearance *	mm	ft in	1,105	3'8"	1,105	3'8"	1,105	3'8"	1,105	3'8"	1,105	3'8"	1,105	3'8"	1,105	3'8"		
I. Tumbler length	mm	ft in	4,015	13'2"	4,015	13'2"	4,015	13'2"	4,015	13'2"	4,015	13'2"	4,015	13'2"	4,015	13'2"		
J. Track length	mm	ft in	4,865	16'0"	4,865	16'0"	4,865	16'0"	4,865	16'0"	4,865	16'0"	4,865	16'0"	4,865	16'0"		
K. Track gauge	mm	ft in	2,590	8'6"	2,590	8'6"	2,590	8'6"	2,590	8'6"	2,590	8'6"	2,590	8'6"	2,590	8'6"		
L. Shoe width	mm	ft in	600	24"	600	24"	600	24"	600	24"	600	24"	600	24"	600	24"		
M. Min. ground clearance *	mm	ft in	475	1'7"	475	1'7"	475	1'7"	475	1'7"	475	1'7"	475	1'7"	475	1'7"		
N. Overall length	mm	ft in	10,605	34'10"	10,500	34'5"	10,540	34'7"	10,605	34'10"	10,535	34'7"	10,535	34'7"	14,565	47'9"		
O. Overall height of boom	mm	ft in	3,470	11'5"	3,345	11'0"	3,580	11'9"	3,385	11'1"	3,325	10'11"	3,605	11'10"	-	-		

* Without shoe grouser

† 2-piece boom

DIMENSIONS

Boom

Description	Unit		mono				2-piece		Long-Reach	
			6.2, 20'4" GP		6.2, 20'4" HD		6.2, 20'4"		10.2, 33'6"	
Boom	m, ft in									
Length	mm	ft in	6,425	21'1"	6,425	21'1"	6,425	21'1"	10,425	34'2"
Height - Hose	mm	ft in	1,780	5'10"	1,780	5'10"	1,595	5'3"	-	-
Height - Pipe	mm	ft in	1,665	5'6"	1,665	5'6"	1,550	5'1"	1,580	5'2"
Width	mm	ft in	765	2'6"	765	2'6"	770	2'6"	765	2'6"
Weight	kg	lb	2,505	5,520	2,735	6,030	3,375	7,440	3,380	7,450

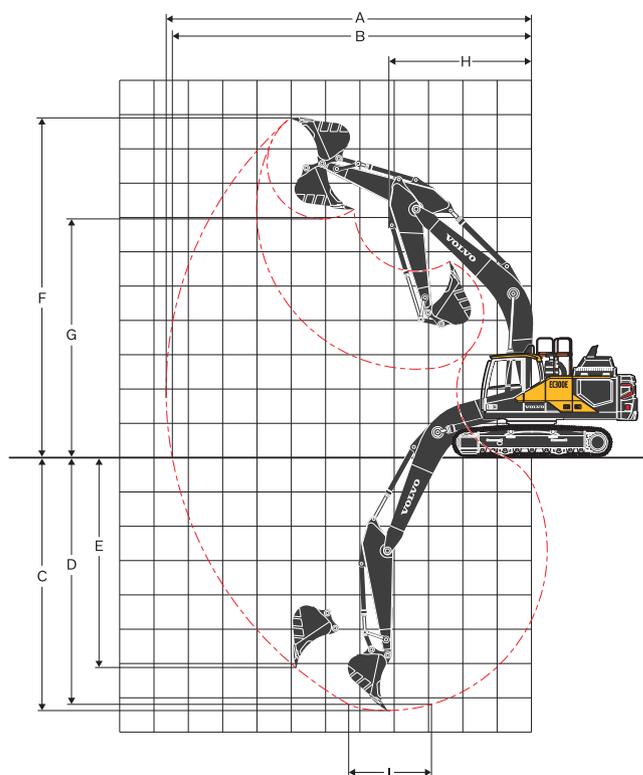
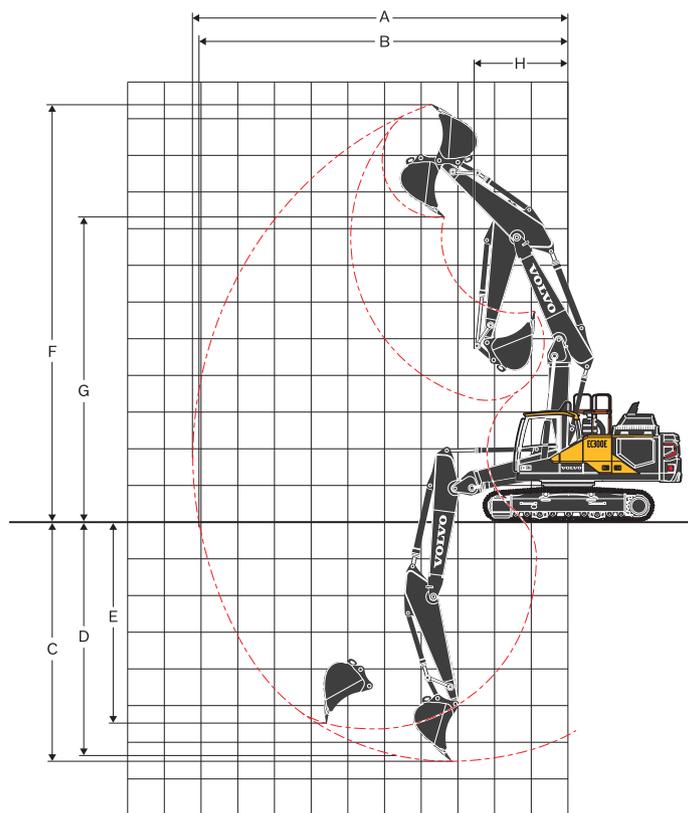
* Includes cylinder, piping and pin, excludes boom cylinder pin

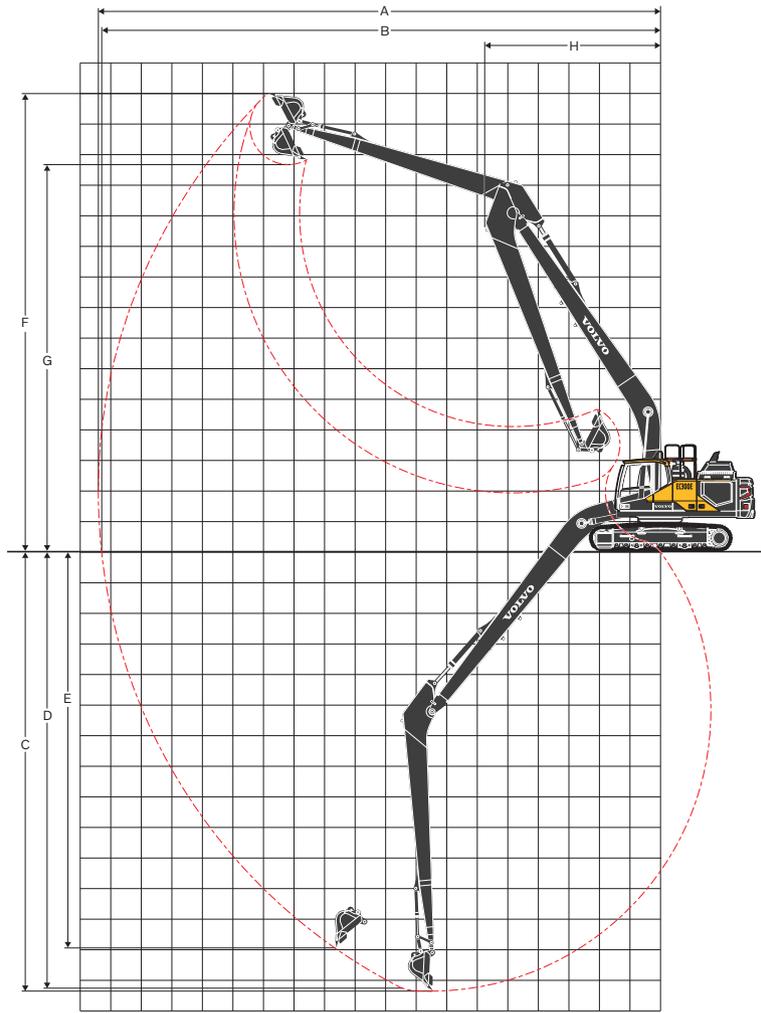
Arm

Description	Unit		2.55, 8'4" HD		3.05, 10'0" GP		3.05, 10'0" HP		3.7, 12'2" GP		7.9, 25'11" LR	
Arm	m											
Length	mm	ft in	3,720	12'2"	4,145	13'7"	4,145	13'7"	4,800	15'9"	9,055	29'8"
Height	mm	ft in	1,005	3'4"	1,010	3'4"	1,010	3'4"	1,005	3'4"	1,095	3'7"
Width	mm	ft in	560	1'10"	560	1'10"	560	1'10"	560	1'10"	435	1'5"
Weight	kg	lb	1,450	3,200	1,510	3,330	1,570	3,460	1,630	3,590	1,770	3,900

* Includes cylinder, linkage and pin

Specifications





WORKING RANGES

Description	Unit	EC300EL												EC300ELR															
		6.2, 20'4" mono						6.2, 20'4" 2-piece						10.2, 33'6"															
Boom	m, ft in	2.55		8'4"		3.05		10'0"		3.7		12'2"		2.55		8'4"		3.05		10'0"		3.7		12'2"		7.9		25'11"	
Arm	m, ft in	2.55	8'4"	3.05	10'0"	3.7	12'2"	2.55	8'4"	3.05	10'0"	3.7	12'2"	2.55	8'4"	3.05	10'0"	3.7	12'2"	7.9	25'11"								
A. Max. digging reach	mm ft in	10,180	33'5"	10,710	35'2"	11,310	37'1"	10,250	33'8"	10,780	35'4"	11,390	37'4"	18,590	60'12"														
B. Max. digging reach on ground	mm ft in	9,970	32'9"	10,520	34'6"	11,130	36'6"	10,040	32'11"	10,580	34'9"	11,210	36'9"	18,480	60'8"														
C. Max. digging depth	mm ft in	6,840	22'5"	7,340	24'1"	7,990	26'3"	6,210	20'4"	6,730	22'1"	7,370	24'2"	14,750	48'5"														
D. Max. digging depth (l = 2.44 m / 8'0" level)	mm ft in	6,600	21'8"	7,150	23'5"	7,830	25'8"	6,100	20'0"	6,630	21'9"	7,280	23'11"	14,650	48'1"														
E. Max. vertical wall digging depth	mm ft in	5,320	17'5"	6,080	19'11"	6,680	21'11"	5,040	16'6"	5,630	18'6"	6,240	20'6"	13,630	44'9"														
F. Max. cutting height	mm ft in	9,560	31'4"	9,980	32'9"	10,260	33'8"	11,550	37'11"	12,070	39'7"	12,570	41'3"	14,940	49'0"														
G. Max. dumping height	mm ft in	6,680	21'11"	7,040	23'1"	7,330	24'1"	8,360	27'5"	8,850	29'0"	9,360	30'9"	12,600	41'4"														
H. Min. front swing radius	mm ft in	4,220	13'10"	4,180	13'9"	4,240	13'11"	2,750	9'0"	2,580	8'6"	2,770	9'1"	6,190	20'4"														

DIGGING FORCES WITH DIRECT FIT BUCKET

Bucket radius		mm	in	1,624	64"	1,624	64"	1,624	64"	1,624	64"	1,624	64"	1,624	64"	1,248	49"	
Breakout force	Normal	SAE J1179	kN	lb	165	37,050	165	37,050	165	37,040	165	37,050	165	37,050	165	37,040	69	15,580
			Power boost	kN	lb	179	40,320	179	40,320	179	40,310	179	40,320	179	40,320	179	40,310	69
	Normal	ISO 6015	kN	lb	190	42,680	190	42,680	190	42,670	190	42,680	190	42,680	190	42,670	78	17,600
			Power boost	kN	lb	207	46,450	207	46,450	207	46,440	207	46,450	207	46,450	207	46,440	78
Tearout force	Normal	SAE J1179	kN	lb	158	35,500	133	29,790	116	26,090	158	35,500	133	29,790	116	26,090	51	11,550
			Power boost	kN	lb	172	38,630	144	32,420	126	28,400	172	38,630	144	32,420	126	28,400	51
	Normal	ISO 6015	kN	lb	163	36,580	136	30,550	118	26,630	163	36,580	136	30,550	118	26,630	52	11,660
			Power boost	kN	lb	177	39,810	148	33,250	129	28,980	177	39,810	148	33,250	129	28,980	52
Rotation angle, bucket		°		179	179	179	179	179	179	179	179	179	179	179	179	178		

Specifications

MACHINE WEIGHTS AND GROUND PRESSURE

Description	Shoe width		Operating weight		Ground pressure		Overall width		Operating weight		Ground pressure		Overall width	
	mm	in	kg	lb	kPa	psi	mm	in	kg	lb	kPa	psi	mm	in
EC300EL														
	6.2 m (20'4") boom (GP), 3.05 m (10'0") arm (GP), 1,209 kg (2,670 lb) / 1.32 m³ (349 gal) bucket, 6,200 kg (13,670 lb) counterweight				6.2 m (20'4") boom (HD), 3.05 m (10'0") arm (HD), 1,209 kg (2,670 lb) / 1.32 m³ (349 gal) bucket, 6,200 kg (13,670 lb) counterweight									
Triple grouser	600	24	30,640	67,560	59.1	8.6	3,190	10'6"	30,940	68,220	59.7	8.7	3,190	10'6"
	600 (HD)	24	30,860	68,050	59.5	8.6	3,190	10'6"	31,150	68,690	60.1	8.7	3,190	10'6"
	700	28	31,230	68,860	51.6	7.5	3,290	10'10"	31,520	69,500	52.1	7.6	3,290	10'10"
	800	31	31,590	69,660	45.7	6.6	3,390	11'1"	31,880	70,300	46.1	6.7	3,390	11'1"
Double grouser	900	35	31,950	70,450	41.1	6.0	3,490	11'5"	32,240	71,090	41.5	6.0	3,490	11'5"
	700	28	31,420	69,280	52.0	7.5	3,290	10'10"	31,710	69,920	52.4	7.6	3,290	10'10"
	6.2 m (20'4") boom (2-piece), 3.05 m (10'0") arm (GP), 1,209 kg (2,670 lb) / 1.32 m³ (349 gal) bucket, 6,200 kg (13,670 lb) counterweight				6.2 m (20'4") boom (2-piece), 3.05 m (10'0") arm (HD), 1,209 kg (2,670 lb) / 1.32 m³ (349 gal) bucket, 6,200 kg (13,670 lb) counterweight									
Triple grouser	600	24	31,230	68,860	60.3	8.7	3,190	10'6"	31,610	69,700	61.0	8.8	3,190	10'6"
	600 (HD)	24	31,450	69,350	60.7	8.8	3,190	10'6"	31,820	70,160	61.4	8.9	3,190	10'6"
	700	28	31,820	70,160	52.6	7.6	3,290	10'10"	32,190	70,980	53.2	7.7	3,290	10'10"
	800	31	32,180	70,960	46.6	6.7	3,390	11'1"	32,550	71,770	47.1	6.8	3,390	11'1"
Double grouser	900	35	32,540	71,750	41.9	6.1	3,490	11'5"	32,910	72,570	42.3	6.1	3,490	11'5"
	700	28	32,010	70,580	52.9	7.7	3,290	10'10"	32,380	71,400	53.5	7.8	3,290	10'10"
EC300ELR														
	10.2 m (33'6") boom (LR), 7.9 m (25'11") arm (LR), 478 kg (1,050 lb) / 0.57 m³ (150 gal) bucket, 6,900 kg (15,210 lb) counterweight													
Triple grouser	600	24	31,770	70,050	61.3	8.9	3,190	10'6"						
	600 (HD)	24	31,980	70,520	61.7	8.9	3,290	10'10"						
	800	31	32,710	72,130	47.3	6.9	3,390	11'1"						
	900	35	33,080	72,940	42.5	6.2	3,490	11'5"						

BUCKET SELECTION GUIDE

Bucket type		Capacity		Cutting width		Weight		Teeth		EC300EL					
										600 mm (24") shoe, 6,200 kg (13,670 lb) counterweight					
										6.2 m (20'4") GP Boom			5.95 m (19'6") 2-piece Boom		
										L	yd ³	mm	in	kg	lb
Direct fit bucket	General purpose	550	0.72	600	23.6	883	1,946	3	C	C	C	C	C	C	
		660	0.86	750	29.5	867	1,912	3	C	C	C	C	C	C	
		770	1.01	900	35.4	996	2,197	4	C	C	C	C	C	C	
		950	1.24	1,090	42.9	1,025	2,260	4	C	C	C	C	C	C	
		1,140	1.49	1,240	48.8	1,192	2,629	5	C	C	C	C	C	C	
		1,320	1.73	1,390	54.7	1,209	2,666	5	C	C	C	C	C	C	
		1,450	1.90	1,490	58.7	1,270	2,799	5	C	C	C	C	C	C	
		1,510	1.98	1,540	60.6	1,314	2,897	5	C	C	C	C	C	C	
		1,760	2.30	1,740	68.5	1,448	3,193	6	C	C	B	C	C	B	
		1,930	2.52	1,840	72.4	1,529	3,370	6	C	C	B	C	B	A	
	2,060	2.69	1,950	76.8	1,590	3,506	6	C	B	A	C	B	A		
	Heavy duty	550	0.72	600	23.6	881	1,942	3	D	D	D	D	D	D	
		660	0.86	750	29.5	920	2,029	3	D	D	D	D	D	D	
		1,140	1.49	1,240	48.8	1,214	2,677	5	D	D	D	D	D	D	
		1,270	1.66	1,405	55.3	1,336	2,945	5	D	D	D	D	D	D	
		1,320	1.73	1,390	54.7	1,301	2,868	5	D	D	D	D	D	D	
		1,510	1.98	1,540	60.6	1,387	3,058	5	D	D	D	D	D	C	
		1,690	2.21	1,690	66.5	1,485	3,274	5	D	D	B	D	D	B	
1,930		2.52	1,840	72.4	1,623	3,578	6	C	B	A	C	B	A		
Direct fit bucket (UQC interface)	General purpose	550	0.72	600	23.6	883	1,946	3	C	C	C	C	C	C	
		660	0.86	750	29.5	867	1,912	3	C	C	C	C	C	C	
		770	1.01	900	35.4	996	2,197	4	C	C	C	C	C	C	
		950	1.24	1,090	42.9	1,025	2,260	4	C	C	C	C	C	C	
		1,140	1.49	1,240	48.8	1,192	2,629	5	C	C	C	C	C	C	
		1,320	1.73	1,390	54.7	1,209	2,666	5	C	C	C	C	C	C	
		1,450	1.90	1,490	58.7	1,270	2,799	5	C	C	C	C	C	B	
		1,510	1.98	1,540	60.6	1,314	2,897	5	C	C	B	C	C	B	
		1,760	2.30	1,740	68.5	1,448	3,193	6	C	B	A	C	B	A	
		1,930	2.52	1,840	72.4	1,529	3,370	6	B	B	A	B	A	x	
	2,060	2.69	1,950	76.8	1,590	3,506	6	B	A	x	B	A	x		
	Heavy duty	550	0.72	600	23.6	881	1,942	3	D	D	D	D	D	D	
		660	0.86	750	29.5	920	2,029	3	D	D	D	D	D	D	
		1,140	1.49	1,240	48.8	1,214	2,677	5	D	D	D	D	D	D	
		1,320	1.73	1,390	54.7	1,301	2,868	5	D	D	C	D	D	C	
		1,510	1.98	1,540	60.6	1,387	3,058	5	D	D	B	D	C	B	
		1,690	2.21	1,690	66.5	1,485	3,274	5	D	B	A	C	B	A	
		1,930	2.52	1,840	72.4	1,623	3,578	6	B	A	x	B	A	x	

For long reach boom and arm configuration, Volvo recommends to use 0.57 m³ (0.75 yd³) bucket. Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application. The recommendations are given as a guide only, based on typical operation conditions. Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

Maximum material density			
	kg/m ³	lb/yd ³	
A	1,200~1,300	2,000~2,200	Coal, Caliche, Shale
B	1,400~1,600	2,300~2,700	Wet earth and clay, Limestone, Sandstone
C	1,700~1,800	2,800~3,100	Granite, Wet sand, Well blasted rock
D	> 1,900	> 3,200	Wet mud, Iron ore
X	Not recommended		

Specifications

LIFTING CAPACITY EC300EL

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting Point	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		9.0 m, 30 ft		Max. Reach		
		Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max.
Boom : 6.2 m , 20'34" Arm : 2.55 m, 8'4" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	7.5 m kg							*7,740	*7,740					*7,900	7,640	6.52 m
	25 ft lb							*17,180	*17,180					*17,450	17,300	21.04 ft
	6.0 m kg							*8,080	*8,080	*7,890	6,040			*7,900	5,970	7.55 m
	20 ft lb							*17,660	*17,660					*17,420	13,320	24.60 ft
	4.5 m kg					*11,410	*11,410	*9,190	8,330	*8,220	5,930			7,940	5,160	8.18 m
	15 ft lb					*24,500	*24,500	*19,940	17,970	*17,970	12,770			17,600	11,440	26.76 ft
	3.0 m kg					*14,580	11,950	*10,630	7,930	*8,890	5,740			7,370	4,760	8.50 m
	10 ft lb					*31,310	25,820	*23,000	17,120	19,250	12,390			16,280	10,520	27.86 ft
	1.5 m kg					*16,750	11,340	*11,900	7,590	8,740	5,570			7,220	4,630	8.54 m
	5 ft lb					*36,130	24,460	*25,760	16,380	18,830	12,020			15,910	10,220	28.01 ft
	0 m kg					*17,340	11,140	12,030	7,390	8,610	5,450			7,440	4,750	8.31 m
	0 ft lb					*37,580	23,990	25,890	15,940	18,560	11,770			16,410	10,480	27.25 ft
	-1.5 m kg			*12,880	*12,880	*16,910	11,150	11,970	7,340	8,590	5,430			8,170	5,190	7.78 m
	-5 ft lb			*29,370	*29,370	*36,700	24,000	25,760	15,830	18,530	11,740			18,050	11,470	25.48 ft
	-3.0 m kg			*21,080	*21,080	*15,540	11,310	*11,740	7,430					9,850	6,200	6.88 m
-10 ft lb			*45,790	*45,790	*33,640	24,350	*25,310	16,040					*21,770	13,770	22.46 ft	
-4.5 m kg			*16,820	*16,820	*12,520	11,670							*10,110	8,870	5.44 m	
-15 ft lb			*36,120	*36,120	*26,730	25,170							*22,290	20,070	17.54 ft	
Boom : 6.2 m , 20'34" Arm : 3.05 m, 10'0" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	7.5 m kg													*6,380	*6,380	7.20 m
	25 ft lb													*14,340	*14,340	23.32 ft
	6.0 m kg									*7,240	6,130			*6,120	5,320	8.15 m
	20 ft lb									*15,950	13,210			*13,690	11,880	26.57 ft
	4.5 m kg					*10,280	*10,280	*8,540	8,440	*7,710	5,990			*6,120	4,680	8.73 m
	15 ft lb							*18,510	18,210	*16,850	12,910			*13,640	10,370	28.58 ft
	3.0 m kg					*13,480	12,210	*10,050	8,020	*8,470	5,780	*6,600	4,370	*6,330	4,350	9.03 m
	10 ft lb					*28,820	26,210	*21,680	17,250	*18,410	12,450			*14,080	9,600	29.61 ft
	1.5 m kg					*16,040	11,470	*11,460	7,640	8,760	5,580	6,670	4,290	6,600	4,240	9.07 m
	5 ft lb					*34,380	24,510	*24,710	16,380	18,840	12,000			14,540	9,340	29.76 ft
	0 m kg					*17,170	11,140	12,040	7,390	8,600	5,430			6,770	4,330	8.85 m
	0 ft lb					*36,920	23,730	25,780	15,820	18,470	11,670			14,920	9,530	29.04 ft
	-1.5 m kg	*7,610	*7,610	*11,750	*11,750	*17,140	11,070	11,920	7,290	8,530	5,370			7,330	4,660	8.36 m
	-5 ft lb	*17,240	*17,240	*26,870	*26,870	*36,930	23,580	25,520	15,600	18,340	11,550			16,170	10,280	27.38 ft
	-3.0 m kg	*13,880	*13,880	*19,440	*19,440	*16,140	11,170	11,970	7,330	8,610	5,440			8,560	5,420	7.53 m
-10 ft lb	*31,360	*31,360	*44,400	*44,400	*34,750	23,830	25,650	15,710					18,970	11,990	24.61 ft	
-4.5 m kg			*18,990	*18,990	*13,800	11,450	*10,080	7,560					*9,460	7,180	6.24 m	
-15 ft lb			*40,570	*40,570	*29,460	24,520	*21,200	16,310					*20,800	16,080	20.23 ft	
Boom : 6.2 m , 20'34" Arm : 3.7 m, 12'2" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	7.5 m kg									*6,290	6,220			*4,930	*4,930	7.96 m
	25 ft lb									*12,940	*12,940			*10,930	*10,930	25.82 ft
	6.0 m kg									*6,390	6,170			*4,750	4,660	8.82 m
	20 ft lb									*14,060	13,270			*10,490	10,370	28.78 ft
	4.5 m kg							*7,580	*7,580	*6,980	6,010	*6,390	4,450	*4,750	4,150	9.36 m
	15 ft lb							*16,450	*16,450	*15,260	12,940	*12,690	9,550	*10,460	9,190	30.64 ft
	3.0 m kg					*11,960	*11,960	*9,180	8,110	*7,840	5,790	6,740	4,350	*4,900	3,880	9.64 m
	10 ft lb					*25,720	*25,720	*19,870	17,490	*17,060	12,470	14,510	9,350	*10,780	8,560	31.60 ft
	1.5 m kg					*14,940	11,680	*10,770	7,690	*8,730	5,560	6,620	4,230	*5,200	3,780	9.67 m
	5 ft lb					*32,220	25,180	*23,320	16,580	18,840	11,990	14,250	9,110	*11,460	8,340	31.74 ft
	0 m kg			*6,730	*6,730	*16,680	11,190	*11,960	7,380	8,550	5,380	6,520	4,140	*5,730	3,840	9.47 m
	0 ft lb			*15,390	*15,390	*36,090	24,100	*25,910	15,920	18,410	11,600	14,040	8,920	*12,630	8,480	31.07 ft
	-1.5 m kg	*6,940	*6,940	*10,930	*10,930	*17,190	11,010	11,870	7,220	8,440	5,280	6,480	4,100	6,470	4,100	9.01 m
	-5 ft lb	*15,520	*15,520	*24,780	*24,780	*37,250	23,700	25,510	15,570	18,170	11,390			14,290	9,050	29.53 ft
	-3.0 m kg	*11,570	*11,570	*16,550	*16,550	*16,670	11,030	11,840	7,200	8,440	5,280			7,370	4,650	8.25 m
-10 ft lb	*25,970	*25,970	*37,550	*37,550	*36,120	23,750	25,460	15,530	18,190	11,400			16,340	10,320	26.98 ft	
-4.5 m kg	*17,310	*17,310	*21,340	*21,340	*15,000	11,220	*11,150	7,330					*8,820	5,830	7.10 m	
-15 ft lb	*39,050	*39,050	*46,020	*46,020	*32,320	24,180	*23,900	15,820					*19,480	13,060	23.07 ft	
-6.0 m kg			*15,770	*15,770	*11,150	11,150							*9,030	*9,030	5.29 m	
-20 ft lb			*33,270	*33,270	*23,290	*23,290							*19,890	*19,890	16.85 ft	

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY EC300EL

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting Point	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		9.0 m, 30 ft		Max. Reach		
		Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max.
Boom : 6.2 m, 20'34" Arm : 2.55 m , 8'4" Shoe : 800 mm, 32" CWT : 6,200kg, 13,670 lb	7.5 m kg							*7,700	*7,700					*7,860	*7,860	6.52 m
	25 ft lb							*17,100	*17,100					*17,360	*17,360	21.04 ft
	6.0 m kg							*8,040	*8,040	*7,840	6,240			*7,850	6,170	7.55 m
	20 ft lb							*17,570	*17,570					*17,300	13,780	24.60 ft
	4.5 m kg					*11,350	*11,350	*9,140	8,620	*8,160	6,130			*7,990	5,340	8.18 m
	15 ft lb					*24,370	*24,370	*19,820	18,590	*17,850	13,210			*17,610	11,830	26.76 ft
	3.0 m kg					*14,480	12,350	*10,560	8,190	*8,820	5,940			*7,660	4,920	8.50 m
	10 ft lb					*31,090	26,680	*22,840	17,690	*19,200	12,810			*16,910	10,870	27.86 ft
	1.5 m kg					*16,620	11,700	*11,810	7,840	9,080	5,750			*7,490	4,790	8.54 m
	5 ft lb					*35,850	25,240	*25,560	16,920	19,560	12,420			*16,530	10,560	28.01 ft
	0 m kg					*17,200	11,490	*12,490	7,630	8,940	5,630			*7,730	4,910	8.31 m
	0 ft lb					*37,270	24,740	26,870	16,460	19,270	12,150			*17,040	10,830	27.25 ft
	-1.5 m kg			*12,880	*12,880	*16,770	11,490	12,420	7,570	8,920	5,610			*8,480	5,360	7.78 m
	-5 ft lb			*29,370	*29,370	*36,390	24,740	26,720	16,330	19,230	12,120			*18,740	11,840	25.48 ft
	-3.0 m kg			*20,880	*20,880	*15,400	11,660	*11,630	7,660					*9,770	6,400	6.88 m
	-10 ft lb			*45,350	*45,350	*33,340	25,100	*25,080	16,550					*21,570	14,210	22.46 ft
	-4.5 m kg			*16,640	*16,640	*12,400	12,030							*10,010	9,150	5.44 m
-15 ft lb			*35,730	*35,730	*26,450	25,950							*22,050	20,710	17.54 ft	
Boom : 6.2 m, 20'34" Arm : 3.05 m, 10'0" Shoe : 800 mm, 32" CWT : 6,200 kg, 13,670 lb	7.5 m kg													*6,470	*6,470	7.20 m
	25 ft lb													*14,340	*14,340	23.32 ft
	6.0 m kg									*7,190	6,360			*6,200	5,510	8.15 m
	20 ft lb									*15,850	13,670			*13,690	12,290	26.57 ft
	4.5 m kg					*10,200	*10,200	*8,480	*8,480	*7,660	6,200			*6,200	4,840	8.73 m
	15 ft lb							*18,400	*18,400	*16,730	13,360			*13,640	10,730	28.58 ft
	3.0 m kg					*13,320	12,550	*9,950	8,270	*8,390	5,970	*6,680	4,520	*6,400	4,500	9.03 m
	10 ft lb					*28,630	27,100	*21,540	17,850	*18,270	12,880			*14,080	9,930	29.61 ft
	1.5 m kg					*15,820	11,730	*11,320	7,840	9,080	5,750	6,930	4,420	*6,830	4,380	9.07 m
	5 ft lb					*34,120	25,310	*24,520	16,940	19,570	12,400			*15,030	9,650	29.76 ft
	0 m kg					*16,910	11,370	*12,230	7,570	8,900	5,590			*7,030	4,460	8.85 m
	0 ft lb					*36,630	24,490	*26,510	16,340	19,190	12,060			*15,490	9,850	29.04 ft
	-1.5 m kg	*7,690	*7,690	*11,840	*11,840	*16,890	11,300	12,310	7,460	8,830	5,520			*7,600	4,810	8.36 m
	-5 ft lb	*17,240	*17,240	*26,870	*26,870	*36,620	24,320	26,490	16,100	19,040	11,930			*16,790	10,620	27.38 ft
	-3.0 m kg	*13,970	*13,970	*19,530	*19,530	*15,900	11,420	*11,950	7,510	8,920	5,600			*8,870	5,580	7.53 m
	-10 ft lb	*31,360	*31,360	*44,400	*44,400	*34,440	24,580	*25,840	16,210					*19,690	12,380	24.61 ft
	-4.5 m kg			*18,650	*18,650	*13,580	11,730	*9,940	7,770					*9,330	7,380	6.24 m
-15 ft lb			*40,150	*40,150	*29,170	25,300	*20,990	16,840					*20,590	16,600	20.23 ft	
Boom : 6.2 m, 20'34" Arm : 3.7 m, 12'2" Shoe : 800 mm, 32" CWT : 6,200 kg, 13,670 lb	7.5 m kg									*6,260	*6,260			*4,930	*4,930	7.96 m
	25 ft lb									*12,940	*12,940			*10,930	*10,930	25.82 ft
	6.0 m kg									*6,350	*6,350			*4,750	*4,750	8.82 m
	20 ft lb									*13,980	13,760			*10,490	*10,490	28.78 ft
	4.5 m kg							*7,540	*7,540	*6,940	6,230	*6,390	4,610	*4,750	4,300	9.36 m
	15 ft lb							*16,370	*16,370	*15,160	13,410	*12,690	9,890	*10,460	9,520	30.64 ft
	3.0 m kg					*11,890	*11,890	*9,120	8,390	*7,780	5,990	7,020	4,500	*4,900	4,010	9.64 m
	10 ft lb					*25,580	*25,580	*19,750	18,100	*16,940	12,920	15,100	9,680	*10,780	8,870	31.60 ft
	1.5 m kg					*14,830	12,070	*10,690	7,950	*8,670	5,760	6,880	4,380	*5,200	3,910	9.67 m
	5 ft lb					*31,990	26,010	*23,150	17,150	*18,830	12,410	14,820	9,430	*11,460	8,630	31.74 ft
	0 m kg			*6,730	*6,730	*16,550	11,550	*11,860	7,630	8,890	5,570	6,780	4,280	*5,730	3,980	9.47 m
	0 ft lb			*15,390	*15,390	*35,800	24,880	*25,700	16,450	19,140	12,000	14,600	9,230	*12,630	8,770	31.07 ft
	-1.5 m kg	*6,940	*6,940	*10,930	*10,930	*17,040	11,360	12,320	7,460	8,770	5,460	*6,710	4,240	*6,590	4,240	9.01 m
	-5 ft lb	*15,520	*15,520	*24,780	*24,780	*36,940	24,450	26,480	16,080	18,880	11,770			*14,580	9,360	29.53 ft
	-3.0 m kg	*11,570	*11,570	*16,550	*16,550	*16,530	11,380	*12,260	7,430	8,760	5,450			*7,660	4,810	8.25 m
	-10 ft lb	*25,970	*25,970	*37,550	*37,550	*35,800	24,490	26,430	16,030	18,890	11,780			*16,970	10,660	26.98 ft
	-4.5 m kg	*17,310	*17,310	*21,140	*21,140	*14,860	11,580	*11,040	7,560					*8,730	6,030	7.10 m
-15 ft lb	*39,050	*39,050	*45,580	*45,580	*32,020	24,940	*23,680	16,340					*19,290	13,490	23.07 ft	
-6.0 m kg			*15,590	*15,590	*11,030	11,030							*8,930	*8,930	5.29 m	
-20 ft lb			*32,890	*32,890	*23,030	*23,030							*19,660	*19,660	16.85 ft	

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Specifications

LIFTING CAPACITY EC300EL

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting Point	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		9.0 m, 30 ft		Max. Reach			
		Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max.	
Boom : 6.2 m, 20'34" 2-piece Arm : 2.55 m, 8'4" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	9.0 m kg					*11,710	*11,710							*10,640	*10,640	4.94 m	
	30 ft lb					*25,816	*25,816							*23,457	*23,457	16.21 ft	
	7.5 m kg					*11,290	*11,290	*10,050	8,810					*9,320	7,450	6.61 m	
	25 ft lb					*24,890	*24,890	*22,156	19,423					*20,547	16,424	21.69 ft	
	6.0 m kg			*12,170	*12,170	*12,290	*12,290	*10,310	8,660	*9,210	6,000			*8,900	5,820	7.63 m	
	20 ft lb			*26,830	*26,830	*27,095	*27,095	*22,730	19,092	*20,305	13,228			*19,621	12,831	25.03 ft	
	4.5 m kg					*14,310	12,900	*11,120	8,300	9,170	5,880			7,840	5,030	8.25 m	
	15 ft lb					*31,548	28,440	*24,515	18,293	20,216	12,963			17,284	11,089	27.07 ft	
	3.0 m kg					*16,440	11,850	*12,040	7,860	8,940	5,680			7,280	4,640	8.56 m	
	10 ft lb					*36,244	26,125	*26,544	17,328	19,709	12,522			16,050	10,229	28.08 ft	
	1.5 m kg							12,260	7,490	8,730	5,490			7,120	4,510	8.60 m	
	5 ft lb							27,029	16,513	19,246	12,103			15,697	9,943	28.22 ft	
	0 m kg					*16,280	10,980	12,010	7,280	8,600	5,370			7,350	4,630	8.37 m	
	0 ft lb					*35,891	24,207	26,477	16,050	18,960	11,839			16,204	10,207	27.46 ft	
	-1.5 m kg					*14,390	11,010	*11,290	7,230	*8,570	5,360			*7,840	5,060	7.85 m	
	-5 ft lb					*31,724	24,273	*24,890	15,939	*18,894	11,817			*17,284	11,155	25.75 ft	
	-3.0 m kg					*11,380	11,200	*8,970	7,350					*6,980	6,050	6.96 m	
-10 ft lb					*25,089	24,692	*19,775	16,204					*15,388	13,338	22.83 ft		
Boom : 6.2 m, 20'34" 2-piece Arm : 3.05 m, 10'0" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	9.0 m kg					*9,760	*9,760							*7,380	*7,380	5.83 m	
	30 ft lb					*21,517	*21,517							*16,270	*16,270	19.13 ft	
	7.5 m kg					*9,190	*9,190	*9,400	9,010					*6,550	6,420	7.29 m	
	25 ft lb					*20,260	*20,260	*20,723	19,864					*14,440	14,154	23.92 ft	
	6.0 m kg					*9,740	*9,740	*9,760	8,830	*8,750	6,120			*6,230	5,200	8.22 m	
	20 ft lb					*21,473	*21,473	*21,517	19,467	*19,290	13,492			*13,735	11,464	26.97 ft	
	4.5 m kg					*13,400	13,190	*10,620	8,430	*9,060	5,950			*6,180	4,560	8.80 m	
	15 ft lb					*29,542	29,079	*23,413	18,585	*19,974	13,117			*13,625	10,053	28.87 ft	
	3.0 m kg					*15,680	12,070	*11,640	7,940	8,990	5,720	6,760	4,310	*6,340	4,240	9.10 m	
	10 ft lb					*34,568	26,610	*25,662	17,505	19,820	12,610	14,903	9,502	*13,977	9,348	29.86 ft	
	1.5 m kg					*16,940	11,220	12,280	7,500	8,740	5,490	6,660	4,210	6,510	4,120	9.13 m	
	5 ft lb					*37,346	24,736	27,073	16,535	19,268	12,103	14,683	9,281	14,352	9,083	29.95 ft	
	0 m kg					*16,640	10,860	11,960	7,220	8,560	5,330			6,680	4,210	8.92 m	
	0 ft lb					*36,685	23,942	26,367	15,917	18,872	11,751			14,727	9,281	29.27 ft	
	-1.5 m kg			*11,010	*11,010	*15,150	10,800	*11,650	7,120	8,490	5,270			7,230	4,540	8.43 m	
	-5 ft lb			*24,273	*24,273	*33,400	23,810	*25,684	15,697	18,717	11,618			15,939	10,009	27.66 ft	
	-3.0 m kg					*12,550	10,950	*9,820	7,190	*6,990	5,370			*6,700	5,280	7.61 m	
-10 ft lb					*27,668	24,141	*21,649	15,851	*15,410	11,839			*14,771	11,640	24.97 ft		
Boom : 6.2 m, 20'34" 2-piece Arm : 3.7 m, 12'2" Shoe : 600 mm, 24" CWT : 6,200 kg, 13,670 lb	10.5 m kg					*7,390	*7,390							*6,910	*6,910	4.67 m	
	35 ft lb					*16,292	*16,292							*15,234	*15,234	15.32 ft	
	9 m kg							*7,200	*7,200					*5,520	*5,520	6.76 m	
	30 ft lb							*15,873	*15,873					*12,170	*12,170	22.18 ft	
	7.5 m kg							*7,460	*7,460	*6,650	6,220			*4,990	*4,990	8.05 m	
	25 ft lb							*16,446	*16,446	*14,661	13,713			*11,001	*11,001	26.41 ft	
	6.0 m kg					*7,060	*7,060	*7,820	*7,820	*7,700	6,170			*4,770	4,540	8.90 m	
	20 ft lb					*15,565	*15,565	*17,240	*17,240	*16,976	13,603			*10,516	10,009	29.20 ft	
	4.5 m kg			*10,040	*10,040	*9,870	*9,870	*9,580	8,550	*8,520	5,990	*6,700	4,400	*4,730	4,030	9.44 m	
	15 ft lb			*22,134	*22,134	*21,760	*21,760	*21,120	18,850	*18,783	13,206	*14,771	9,700	*10,428	8,885	30.97 ft	
	3.0 m kg					*14,670	12,500	*11,050	8,070	9,030	5,740	6,750	4,290	*4,850	3,770	9.71 m	
	10 ft lb					*32,342	27,558	*24,361	17,791	19,908	12,655	14,881	9,458	*10,692	8,311	31.86 ft	
	1.5 m kg					*16,560	11,560	*12,030	7,610	8,760	5,500	6,610	4,170	*5,110	3,670	9.75 m	
	5 ft lb					*36,509	25,485	*26,522	16,777	19,312	12,125	14,573	9,193	*11,266	8,091	31.99 ft	
	0 m kg			*5,950	*5,950	*16,980	11,040	12,040	7,280	8,540	5,300	6,510	4,070	*5,570	3,740	9.55 m	
	0 ft lb			*13,117	*13,117	*37,434	24,339	26,544	16,050	18,827	11,684	14,352	8,973	*12,280	8,245	31.33 ft	
	-1.5 m kg					*10,200	*10,200	*16,080	10,860	11,840	7,110	8,420	5,200	6,470	4,040	*6,330	3,990
-5 ft lb					*22,487	*22,487	*35,450	23,942	26,103	15,675	18,563	11,464	14,264	8,907	*13,955	8,796	29.82 ft
-3.0 m kg					*15,880	*15,880	*14,010	10,900	*10,720	7,100	*8,110	5,210		*6,470	4,530	8.34 m	
-10 ft lb					*35,009	*35,009	*30,887	24,030	*23,634	15,653	*17,879	11,486		*14,264	9,987	27.36 ft	
-4.5 m kg					*10,510	*10,510	*7,980	7,260								7.20 m	
-15 ft lb					*23,171	*23,171	*17,593	16,006								23.62 ft	

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD EQUIPMENT
Engine
Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets EU Stage V requirements
Air filter with indicator
Air intake heater
Cyclone precleaner
Electric engine shutoff
Fuel filter and water separator
Delayed engine shutdown
Alternator, 80 A
Electric / Electronic control system
Advanced mode control system
Selfdiagnostic system
Machine status indication
Engine speed sensing power control
Automatic idling system
Onetouch power boost
Safety stop/start function
Adjustable LCD color monitor
Master electrical disconnect switch
Engine restart prevention circuit
Highcapacity halogen lights:
- Frame-mounted 2
- Boom-mounted 1
Extra work lights(Halogen) :
Cab-mounted 3
Boom-mounted 1
Batteries, 2 x 12 V / 170 A
Start motor, 24 V / 5.5 kW
Travel alarm
Frame
Access way with handrail
Tool storage area
Punched metal antislip plates
Counterweight:
13,670 lb
15,210 lb Long Reach
Undercarriage
Undercover (heavyduty)
Hydraulic track adjusters
Greased and sealed track link
Track Guard
Hydraulic system
Boom up swing priority function
Boom travel priority function (Creep)
Boom down speed control
Attachment management system (up to 32 programmable memories)
- Variable flow and pressure pre-setting
Hammer & shear, 2 pump flow
Additional return filter (Hammer & shear piping)
Boom float function without HRV
Straight travel pedal
Automatic sensing hydraulic system
Summation system
Boom priority
Arm priority
Swing priority
ECO mode fuel saving technology
Boom, arm and bucket regeneration valves
Swing antirebound valves
Boom and arm holding valves
Multistage filtering system
Cylinder cushioning
Cylinder contamination seals
Auxiliary hydraulic valve
Automatic twospeed travel motors
Hydraulic oil, ISO VG 46
Quick coupler piping

STANDARD EQUIPMENT
Cab and interior
ROPS (ISO121172) certified cab
Opening top hatch
Silicon oil and rubber mounts with spring
Travel pedals and hand levers
Adjustable operator seat and joystick control console
Heater & airconditioner, automatic
Flexible antenna
Radio with MP3 & USB Jack with bluetooth
Hydraulic safety lock lever
Cab, allweather sound suppressed, includes:
Cup holders
Door locks
Tinted glass
Floor mat
Horn
Large storage area
Pullup type front window
Removable lower windshield
Seat belt
Safety glass
Sun screens, front, roof, rear
Rain shield
Windshield wiper with intermittent feature
Volvo smart view
Master key
Track shoes
32" with triple grousers
Digging equipment
Linkage with lifting eye
Boom: 20'4" monoblock
Arm: 10'0"
Boom: 33'6" monoblock, Long Reach
Arm: 25'11", Long Reach
Manual centralized lubrication
Machine controls
Dig Assist
Volvo Active Control (Semi-autonomous)
OPTIONAL EQUIPMENT
Engine
Block heater: 120 V, 240 V
Oil bath pre-cleaner
Diesel coolant heater, 10 kW
Water separator with heater
Auto engine shutdown
Reversible fan
Fuel filler pump: 13.2 gpm, with automatic shutoff
Electric
Extra work lights(LED):
Cab-mounted 3
Boom-mounted 1
Counterweight-mounted 1
Green light beacon
Anti-theft system
Rotating warning beacon
Smart connect for tilt rotator
Tilt rotator 3rd gen
Dig assist, smart connect
On Board Weighing (OBW)
Undercarriage
Full track guard
Track shoes
24/28/36" with triple grousers
24" HD with triple grousers
24/28" with double grousers

OPTIONAL EQUIPMENT

High walker undercarriage

Hydraulic system

CDC, Comfort Driving Control

Hose rupture valve: boom & arm

Overload warning device

Boom float function with HRV

Hydraulic piping:

- Slope & rotator

- Grapple

- Oil leak (drain) line

Volvo hydraulic quick coupler S2

Volvo hydraulic quick coupler U30 / U35

Volvo hydraulic quick coupler SQ70 55

Volvo hydraulic quick coupler SQ70

Hydraulic oil, biodegradable 46

Hydraulic oil, longlife oil 32

Hydraulic oil, longlife oil 46

Fuel tank-fast fuel fill prep

Hammer & shear, 1 pump flow

Cab and interior

High visibility cabin

Fabric seat with heater

Fabric seat with heater and air suspension

Deluxe seat

High-strength one piece front windshield (P5A)

Falling object guard, FOG (fixed type or hinge type)

Frame-mounted

Cab-mounted

Cab-mounted falling object protective structure (FOPS)

Side view camera

Smoker kit (ashtray and lighter)

Safety net for front window

Lower wiper with intermittent control

Anti-vandalism kit

Air pressure supply in cabin

Rear view camera

Control joysticks with 4 switches

OPTIONAL EQUIPMENT

Proportional joysticks with 3 switches

Digging equipment

Arm: 8'4" HD, 10'0", HD, 12'2"

Arm: 25'11", long reach

Service

Tool kit, daily maintenance

Tool kit, full scale

Other

Hybrid: Please refer to separate Brochure for more details

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Deluxe seat**Hybrid****Reversible cooling fan****TiltRotator****Oil drain line****High-visibility cab**

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.



VOLVO

Volvo Construction Equipment
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