VOLVO

Volvo Excavators 30.0 - 32.7 t 180 kW

EC300

Volvo Construction Equipment

EC300

**A versatile machine regardless of application.
A modern, comfortable cab helps operators perform
at their very best, giving you an edge in productivity.**

A straightforward solution

Commonly used in quarries, for trenching, digging or preparing construction sites, the EC300 is a versatile machine. Regardless of applications, the EC300 is a straightforward solution with big payback. With enhanced machine access, superior visibility, increased service intervals, improved fuel efficiency, this excavator delivers all the safety, comfort, reliability and performance you would expect from a Volvo machine.

Operator comfort

- More precise controls
- Quieter cab
- Personalized settings for greater comfort
- ROPS cab as standard

Serviceability

- Ground level access for service
- Long service intervals
- Grouped filters and lubrication points
- Quick and easy oil changes

Fuel Efficiency

- Up to 10% improvement
- Powerful and efficient Volvo engine
- Engine pump optimization
- Hydraulic system improvement with smart MCV

Productivity

- Volvo Active Control
- Dig Assist with On-Board Weighing
- Boom/Swing & Boom/Travel priority functions

Fuel efficiency

In the new Volvo excavators our improved electro-hydraulic system reduces your fuel consumption dramatically. It is done by regulating engine speed and hydraulic flow rate based on the task at hand. This ensures that only the necessary amount of energy is used, leading to improved fuel efficiency and lower operating costs.

Outstanding performance

The optimized work modes and ECO mode on the new generation of Volvo excavators help the operator to adapt to the most demanding job conditions, while keeping high performance at lower rpm, further increasing fuel efficiency. A host of additional optional features, including Dig Assist and many more, also help to make your working day more efficient.

New electro-hydraulic system

At the heart of the fuel efficiency improvements is the new electro-hydraulic system with enhanced main control valve (MCV). This intelligent technology uses electronic sensors to monitor the operator's movements and send signals to the machine's on-board computer (ECU) which processes the information and sends commands to the main control valve.
The result is smooth and precise movement of the excavator's boom, bucket, and other hydraulic functions allowing for more accurate digging and loading.

Dig Assist

A must-have on the modern construction site, Dig Assist provides unrivalled machine guidance and control technology, enabling operators to work with the highest levels of precision and accuracy. The addition of On-Board Weighing provides real-time insights into the bucket's load, helping to eliminate over-loading, underloading, reweighing and waiting times.

Productivity

Advanced electric control joystick and full electric travel pedals provide lightning-fast response times. Boom/Swing priority functions help operators work with speed and ease by prioritizing one function over another, improving cycle times.

Serviceability

Minimizing downtime is key to protecting your Total Cost of Ownership. Features including swing out condenser, easy service access, 6000-hour intervals for hydraulic oil change, along with 3000-hour filter change, all combine to drive down your maintenance costs and increase machine availability. A fuel shut-off valve also facilitates fuel filter changes, avoiding fuel spillage and further reducing costs.

Volvo EC300 in Detail

Engine		
Engine	Volvo	D8L
Max power at	r/min	1 720
Net, ISO 9249/SAE J1349	kW	179
	hp	243
Gross, ISO 14396/SAE J1995	kW	180
	hp	245
Max torque	Nm	1 250
at engine speed	r/min	1 300
No. of cylinders		6
Displacement	l	7.7
Bore	mm	110
Stroke	mm	135

Electrical system		
Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	180 x 2
Alternator	V/A	28 / 120
Start motor	V - kW	24 - 5.5

Undercarriage and structures		
The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.		
Track shoe		2 x 50
Link pitch	mm	203
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
Shoe width, double grouser	mm	600
Shoe width, single grouser	mm	700
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 antirebound valve are standard.		
Max. slew speed	r/min	10.8
Max. slew torque	kNm	114.8

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	248
Max. travel speed (low)	km/h	3.6
Max. travel speed (high)	km/h	5.4
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.
Integrated airconditioning and heating system: The pressurized and filtered cab air is supplied by an automaticallycontrolled fan. The air is distributed throughout the cab from 14 vents.
Ergonomic operator's seat: The adjustable seat and joystick console move independently to accommodate the operator. The seat has up to 12 different adjustments depending on market configuration, plus a seat belt for the operator's comfort and safety.
Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1430 CO_2-eq.

Sound Level

Sound pressure level in cab according to ISO 6396		
L_{pA}	dB	76
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L_{WA}	dB	106

Service Refill

Fuel tank	l	450
Hydraulic system, total	l	400
Hydraulic tank	l	210
Engine oil	l	30
Engine coolant	l	44
Slew reduction unit	l	6
Travel reduction unit	l	2 x 6

Hydraulic system

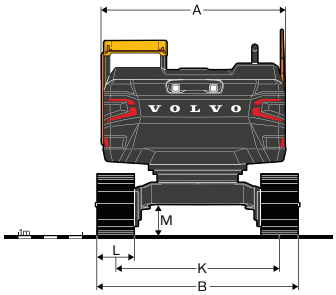
The new electro-hydraulic system and new MCV (main control valve) use intelligent technology to control on-demand flow for highproductivity, high-digging capacity and excellent fuel consumption.
The following important functions are included in the system for optimum performance:
Summation system: Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity.
Boom priority: Gives priority to the boom operation for faster raising when loading or performing deep excavations.
Swing priority: Gives priority to swing functions for faster simultaneous operations.
Regeneration system: Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.
Power boost: All digging and lifting forces are increased.
Holding valves: Boom and arm holding valves prevent the digging equipment from creeping.

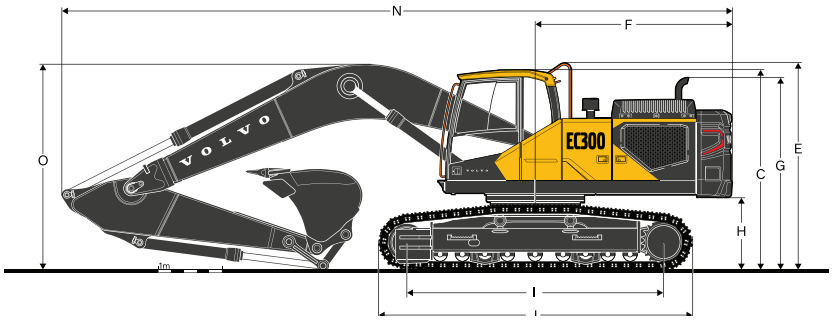
Main pump: 2 x variable displacement axial piston pumps		
Maximum flow	l/min	2 x 276
Pilot pump: Gear pump		
Maximum flow	l/min	20
Max. pressure		33.3 / 36.3
Implement	MPa	33.3 / 37.8
Travel circuit	MPa	36.3
Slew circuit	MPa	28.9
Pilot circuit	MPa	3.9

Hydraulic Cylinders

Mono boom		2
Bore x Stroke	ø x mm	140 x 1 480
Arm		1
Bore x Stroke	ø x mm	150 x 1 745
Bucket		1
Bore x Stroke	ø x mm	140 x 1 140
Bucket for LR boom		1
Bore x Stroke	ø x mm	100 x 865

Specifications

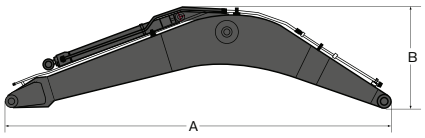


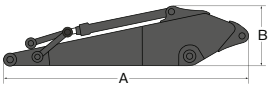


DIMENSIONS

	Unit	EC300F L		EC300F LR
Boom	**m**	**6.2**		**10.2**
Arm	**m**	**2.55**	**3.05**	**7.9**
A. Overall width of upper structure	mm	2 890	2 890	2 890
B. Overall width	mm	3 190	3 190	3 390
C. Overall height of cab	mm	3 110	3 110	3 110
D. Overall height of handrail	mm	3 200	3 200	3 200
F. Tail swing radius	mm	3 120	3 120	3 120
G. Overall height of engine hood	mm	2 740	2 740	2 740
H. Counterweight clearance *	mm	1 105	1 105	1 105
I. Tumbler length	mm	4 015	4 015	4 015
J. Track length	mm	4 865	4 865	4 865
K. Track gauge	mm	2 590	2 590	2 590
L. Shoe width	mm	600	600	600
M. Min. ground clearance *	mm	475	475	475
N. Overall length	mm	10 600	10 500	14 555
O. Overall height of boom	mm	3 460	3 335	3 320

* Without shoe grouser



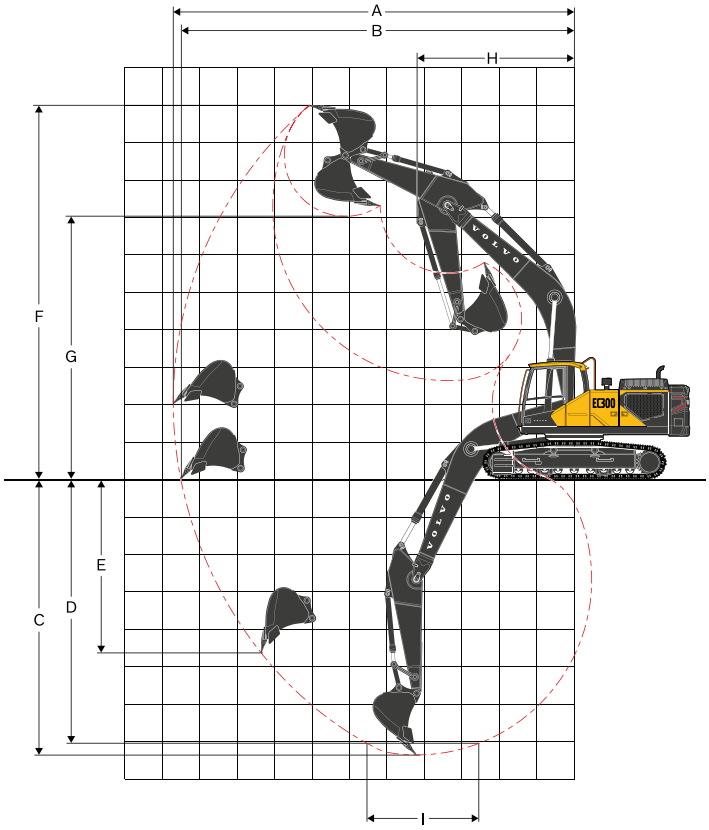


DIMENSIONS

Description	Unit	Boom		Description	Unit	Arm		
	m	**6.2 HD**	**6.2 XD**		**m**	**2.55 HD**	**3.05 HD**	**3.05 XD**
A. Length	mm	6 419	6 419	A. Length	mm	3 720	4 145	4 145
B. Height	mm	1 780	1 780	B. Height	mm	1 005	1 010	1 010
Width	mm	766	766	Width	mm	560	560	560
Weight	kg	2 755	2 885	Weight	kg	1 525	1 595	1 680

* Includes arm cylinder, piping and pin

* Includes cylinder, linkage and pin



WORKING RANGES WITH DIRECT FIT BUCKET						
Description			**Unit**	**EC300F L**		**EC300F LR**
Boom			**m**	**6.2**		**10.2**
Arm			**m**	**2.55**	**3.05**	**7.9**
A. Max. digging reach			mm	10 190	10 720	18 590
B. Max. digging reach on ground			mm	9 980	10 520	18 480
C. Max. digging depth			mm	6 850	7 350	14 750
D. Max.digging depth (I=(2.44 m level)			mm	6 610	7 160	14 650
E. Max. vertical wall digging depth			mm	5 365	6 080	13 490
F. Max. cutting height			mm	9 560	9 990	14 940
G. Max. dumping height			mm	6 670	7 040	12 600
H. Min. front swing radius			mm	4 220	4 180	6 190
DIGGING FORCES WITH DIRECT FIT BUCKET						
Breakout force (bucket)	Normal	SAE J1179	kN	165	165	69
	Power boost	SAE J1179	kN	179	179	-
	Normal	ISO 6015	kN	190	190	80
	Power boost	ISO 6015	kN	207	207	-
Tearout force (arm)	Normal	SAE J1179	kN	158	133	51
	Power boost	SAE J1179	kN	172	144	-
	Normal	ISO 6015	kN	163	136	52
	Power boost	ISO 6015	kN	177	148	-

Specifications

GROUND PRESSURE

EC300F L

Description	Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm	kg	kPa	mm
Triple grouser	600	30 730	59.3	3 190	30 660	59.2	3 190
	600 (HD)	30 940	59.7	3 190	30 870	59.6	3 190
	700	31 310	51.8	3 290	31 240	51.7	3 290
	800	32 050	46.4	3 390	31 980	46.3	3 390
Double grouser	600	31 100	60.0	3 190	31 030	59.9	3 190
		EC300F L, 6.2 m HD boom, 3.05 m HD arm, 1 387 kg bucket, 6 200 kg counterweight			**EC300F L, 6.2 m HD boom, 2.55 m HD arm, 1 387 kg bucket, 6 200 kg counterweight**		

Description	Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm	kg	kPa	mm
Triple grouser	600	30 940	59.7	3 190	30 030	57.9	3 190
	600 (HD)	31 150	60.1	3 190	30 240	58.3	3 190
	700	31 520	52.1	3 290	30 610	50.6	3 290
	800	32 260	46.7	3 390	31 350	45.4	3 390
Double grouser	600	31 310	60.4	3 190	30 400	58.6	3 190
		EC300F L, 6.2 m XD boom, 3.05 m XD arm, 1 387 kg bucket, 6 200 kg counterweight			**EC300F L, 6.2 m HD boom, 3.05 m HD arm, 1 387 kg bucket, 5 500 kg counterweight**		

Description	Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm	kg	kPa	mm
Triple grouser	600	29 960	57.8	3 190	30 240	58.3	3 190
	600 (HD)	30 170	58.2	3 190	30 450	58.7	3 190
	700	30 540	50.5	3 290	30 820	51.0	3 290
	800	31 280	45.3	3 390	31 560	45.7	3 390
Double grouser	600	30 330	58.5	3 190	30 610	59.1	3 190
		EC300F L, 6.2 m HD boom, 2.55 m HD arm, 1 387 kg bucket, 5 500 kg counterweight			**EC300F L, 6.2 m XD boom, 3.05 m XD arm, 1 387 kg bucket, 5 500 kg counterweight**		

EC300F LR

Description	Shoe width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm
Triple grouser	600	31 390	60.6	3 190
	600 (HD)	31 600	61.0	3 190
	700	31 970	52.9	3 290
	800	32 710	47.3	3 390
Double grouser	600	31 760	61.3	3 190
		EC300F LR, 10.2 m LR boom, 7.9 m LR arm, 472 kg bucket, 6 900 kg counterweight		

BUCKET SELECTION GUIDE

EC300F L with 600 mm shoe

Bucket Type		Capacity	Cutting width	Weight	Recommended maximum material density (kg/m³)				
					5 500 kg counterweight		6 200 kg counterweight		
					6.2 m HD Boom		6.2 m HD Boom		6.2 m XD Boom
		L	mm	kg	2.55 m HD	3.05 m HD	2.55 m HD	3.05 m HD	3.05 m XD
V2	GP	1 600	1 640	1 150	C	C	C	C	C
		1 600	1 640	1 213	C	C	C	C	C
V4	GP	550	600	883	C	C	C	C	C
		550	600	876	C	C	C	C	C
		660	750	867	C	C	C	C	C
		660	750	924	C	C	C	C	C
		770	900	986	C	C	C	C	C
		770	900	996	C	C	C	C	C
		950	1 090	1 025	C	C	C	C	C
		1 140	1 240	1 192	C	C	C	C	C
		1 140	1 240	1 153	C	C	C	C	C
		1 320	1 390	1 209	C	C	C	C	C
		1 320	1 390	1 273	C	C	C	C	C
		1 320	1 390	389	C	C	C	C	C
		1 450	1 490	1 315	C	C	C	C	C
		1 450	1 490	1 270	C	C	C	C	C
		1 500	1 500	1 354	C	C	C	C	C
		1 510	1 540	1 314	C	C	C	C	C
		1 510	1 540	1 371	C	C	C	C	C
		1 510	1 540	1 331	C	C	C	C	C
		1 510	1 540	1 325	C	C	C	C	C
		1 690	1 690	1 415	C	C	C	C	C
		1 690	1 690	1 408	C	C	C	C	C
		1 760	1 740	1 501	C	C	C	C	C
		1 760	1 740	1 448	C	C	C	C	C
		1 760	1 740	1 512	C	C	C	C	C
		1 760	1 740	1 466	C	C	C	C	C
		1 930	1 840	1 530	C	B	C	C	C
		2 060	1 950	1 590	B	B	C	B	B
	FD	950	1 500	796	C	C	C	C	C
		1 030	1 600	834	C	C	C	C	C

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
D: > 1 900 kg/m³: Wet mud, Iron ore
C: 1 700 ~ 1 800 kg/m³: Granite, Wet sand, Well blasted rock
B: 1 400 ~ 1 600 kg/m³: Wet earth and clay, Limestone, Sandstone
A: 1 200 ~ 1 300 kg/m³: Coal, Caliche, Shale
X : Not recommended

Specifications

BUCKET SELECTION GUIDE

EC300F L with 600 mm shoe

Bucket Type		Capacity	Cutting width	Weight	Recommended maximum material density (kg/m³)				
					5 500 kg counterweight		6 200 kg counterweight		
					6.2 m HD Boom		6.2 m HD Boom		6.2 m XD Boom
		L	mm	kg	2.55 m HD	3.05 m HD	2.55 m HD	3.05 m HD	3.05 m XD
V4	HD	550	600	881	D	D	D	D	D
		550	600	947	D	D	D	D	D
		660	750	931	D	D	D	D	D
		660	750	936	D	D	D	D	D
		660	750	996	D	D	D	D	D
		660	750	1 003	D	D	D	D	D
		1 140	1 240	1 280	D	D	D	D	D
		1 140	1 240	1 225	D	D	D	D	D
		1 140	1 240	1 235	D	D	D	D	D
		1 140	1 240	1 291	D	D	D	D	D
		1 140	1 240	1 302	D	D	D	D	D
		1 320	1 390	1 301	D	D	D	D	D
		1 320	1 390	1 311	D	D	D	D	D
		1 320	1 390	1 321	D	D	D	D	D
		1 320	1 390	1 377	D	D	D	D	D
		1 320	1 390	1 387	D	D	D	D	D
		1 510	1 540	1 387	D	C	D	D	D
		1 510	1 540	1 453	D	C	D	D	D
		1 510	1 540	1 478	D	C	D	D	D
		1 510	1 540	1 398	D	C	D	D	D
		1 510	1 540	1 423	D	C	D	D	D
		1 510	1 540	1 463	D	C	D	D	D
		1 510	1 540	1 489	D	C	D	D	D
		1 690	1 690	1 485	C	C	D	D	C
		1 690	1 690	1 519	C	C	D	C	C
		1 690	1 690	1 551	C	C	D	C	C
		1 690	1 690	1 585	C	C	D	C	C
		1 930	1 840	1 626	C	B	C	B	B
		1 930	1 840	1 692	B	B	C	B	B

EC300F LR with 800 mm shoe, 6 900 kg counterweight

Bucket Type		Capacity	Cutting width	Weight	Recommended maximum material density (kg/m³)
					10.2 m Boom
		L	mm	kg	7.9 m
V2	GP	520	1 020	453	C
V4	GP	660	1 050	443	C
	FD	460	1 250	422	C

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
D: > 1 900 kg/m³: Wet mud, Iron ore
C: 1 700 ~ 1 800 kg/m³: Granite, Wet sand, Well blasted rock
B: 1 400 ~ 1 600 kg/m³: Wet earth and clay, Limestone, Sandstone
A: 1 200 ~ 1 300 kg/m³: Coal, Caliche, Shale
X : Not recommended

LIFTING CAPACITY EC300F L

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 hook related to ground level		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Max. reach		Max.
			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	m
Boom : 6.2 m XD Arm : 2.55 m HD Shoe : 600 mm CWT : 5 500 kg	6 m	kg							*6 940	*6 940					*7 050	*7 050	6.78
	4.5 m	kg							*7 410	*7 410	*7 040	6 070			*7 050	5 780	7.72
	3 m	kg					*10 820	*10 820	*8 470	8 330	*7 410	5 920			*7 170	5 050	8.27
	1.5 m	kg					*13 520	11 840	*9 720	7 880	*8 010	5 710			7 310	4 700	8.53
	0 m	kg					*15 080	11 250	*10 740	7 520	*8 560	5 520			7 210	4 600	8.52
	-1.5 m	kg					*15 350	11 070	*11 230	7 330	8 580	5 400			7 510	4 770	8.23
	-3 m	kg			*14 280	*14 280	*14 780	11 090	*11 080	7 290	*8 580	5 400			*8 370	5 280	7.63
	-4.5 m	kg			*17 940	*17 940	*13 300	11 290	*10 000	7 410					*8 720	6 480	6.64
	-6 m	kg			*13 490	*13 490	*10 010	*10 010							*8 750	*8 750	5.03
Boom : 6.2 m XD Arm : 2.55 m HD Shoe : 800 mm CWT : 5 500 kg	6 m	kg							*6 940	*6 940					*7 050	*7 050	6.78
	4.5 m	kg							*7 410	*7 410	*7 040	6 090			*7 050	5 790	7.72
	3 m	kg					*10 820	*10 820	*8 470	8 350	*7 410	5 940			*7 170	5 060	8.27
	1.5 m	kg					*13 520	11 860	*9 720	7 900	*8 010	5 720			7 330	4 710	8.53
	0 m	kg					*15 080	11 270	*10 740	7 540	*8 560	5 530			7 230	4 620	8.52
	-1.5 m	kg					*15 350	11 090	*11 230	7 340	8 600	5 410			7 530	4 780	8.23
	-3 m	kg			*14 280	*14 280	*14 780	11 120	*11 080	7 300	*8 580	5 410			*8 370	5 290	7.63
	-4.5 m	kg			*17 940	*17 940	*13 300	11 310	*10 000	7 430					*8 720	6 500	6.64
	-6 m	kg			*13 490	*13 490	*10 010	*10 010							*8 750	*8 750	5.03
Boom : 6.2 m XD Arm : 2.55 m HD Shoe : 600 mm CWT : 6 200 kg	6 m	kg							*6 940	*6 940					*7 050	*7 050	6.78
	4.5 m	kg							*7 410	*7 410	*7 040	5 990			*7 050	5 700	7.72
	3 m	kg					*10 820	*10 820	*8 470	8 170	*7 410	5 840			*7 170	4 990	8.27
	1.5 m	kg					*13 520	11 490	*9 720	7 730	*8 010	5 630			*7 390	4 640	8.53
	0 m	kg					*15 080	10 910	*10 740	7 380	*8 560	5 440			7 640	4 550	8.52
	-1.5 m	kg					*15 350	10 740	*11 230	7 180	*8 850	5 320			7 960	4 710	8.23
	-3 m	kg			*14 280	*14 280	*14 780	10 770	*11 080	7 150	*8 580	5 320			*8 370	5 210	7.63
	-4.5 m	kg			*17 940	*17 940	*13 300	10 960	*10 000	7 270					*8 720	6 380	6.64
	-6 m	kg			*13 490	*13 490	*10 010	*10 010							*8 750	*8 750	5.03
Boom : 6.2 m HD Arm : 3.05 m HD Shoe : 600 mm CWT : 5 500 kg	6 m	kg													*5 950	5 840	7.44
	4.5 m	kg							*6 620	*6 620	*6 320	5 730			*5 750	4 790	8.3
	3 m	kg					*9 540	*9 540	*7 680	*7 680	*6 790	5 540			*5 780	4 240	8.82
	1.5 m	kg					*12 220	11 000	*8 960	7 330	*7 440	5 300	6 400	4 000	*6 020	3 960	9.06
	0 m	kg					*14 130	10 270	*10 080	6 920	*8 070	5 080	6 300	3 900	6 250	3 870	9.05
	-1.5 m	kg			*6 230	*6 230	*14 830	9 970	*10 740	6 670	8 080	4 930			6 460	3 980	8.77
	-3 m	kg	*8 410	*8 410	*12 420	*12 420	*14 600	9 930	*10 830	6 590	8 030	4 880			7 080	4 340	8.22
	-4.5 m	kg	*14 410	*14 410	*18 890	*18 890	*13 510	10 070	*10 140	6 660					*7 850	5 150	7.31
	-6 m	kg			*15 150	*15 150	*11 070	10 430							*8 020	7 140	5.9
Boom : 6.2 m HD Arm : 3.05 m HD Shoe : 800 mm CWT : 6 200 kg	6 m	kg													*5 950	*5 950	7.44
	4.5 m	kg							*6 620	*6 620	*6 320	*6 320			*5 750	5 520	8.3
	3 m	kg					*9 540	*9 540	*7 680	*7 680	*6 790	6 380			*5 780	4 910	8.82
	1.5 m	kg					*12 220	*12 220	*8 960	8 480	*7 440	6 140	*6 570	4 650	*6 020	4 600	9.06
	0 m	kg					*14 130	12 080	*10 080	8 060	*8 070	5 910	6 660	4 550	*6 470	4 520	9.05
	-1.5 m	kg			*6 230	*6 230	*14 830	11 760	*10 740	7 810	*8 470	5 760			6 830	4 650	8.77
	-3 m	kg	*8 410	*8 410	*12 420	*12 420	*14 600	11 720	*10 830	7 720	*8 460	5 710			7 480	5 070	8.22
	-4.5 m	kg	*14 410	*14 410	*18 890	*18 890	*13 510	11 870	*10 140	7 800					*7 850	6 010	7.31
	-6 m	kg			*15 150	*15 150	*11 070	*11 070							*8 020	*8 020	5.9

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 EC300F L

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 hook related to ground level		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Max. reach		Max.
			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	m
Boom : 6.2 m XD Arm : 3.05m XD Shoe : 600 mm CWT : 6 200 kg	6 m	kg													*5 870	5 540	7.44
	4.5 m	kg							*6 530	*6 530	*6 240	5 430			*5 670	4 530	8.3
	3 m	kg					*9 450	*9 450	*7 600	7 440	*6 710	5 250			*5 710	3 990	8.82
	1.5 m	kg					*12 150	10 500	*8 890	6 970	*7 370	5 020	6 040	3 760	*5 950	3 720	9.06
	0 m	kg					*14 080	9 790	*10 020	6 570	7 810	4 800	5 940	3 670	5 890	3 640	9.05
	-1.5 m	kg			*6 160	*6 160	*14 790	9 510	10 690	6 330	7 650	4 660			6 100	3 750	8.77
	-3 m	kg	*8 330	*8 330	*12 340	*12 340	*14 580	9 480	10 600	6 260	7 600	4 610			6 690	4 100	8.22
	-4.5 m	kg	*14 330	*14 330	*18 910	*18 910	*13 490	9 630	*10 110	6 340					*7 810	4 880	7.31
	-6 m	kg			*15 170	*15 170	*11 050	9 990							*7 990	6 820	5.9
Boom : 6.2 m XD Arm : 3.05m XD Shoe : 800 mm CWT : 6 200 kg	6 m	kg													*5 870	*5 870	7.44
	4.5 m	kg							*6 530	*6 530	*6 240	5 880			*5 670	4 910	8.3
	3 m	kg					*9 450	*9 450	*7 600	*7 600	*6 710	5 700			*5 710	4 340	8.82
	1.5 m	kg					*12 150	11 550	*8 890	7 600	*7 370	5 460	6 040	4 100	*5 950	4 050	9.06
	0 m	kg					*14 080	10 820	*10 020	7 190	7 810	5 240	5 940	4 010	5 890	3 970	9.05
	-1.5 m	kg			*6 160	*6 160	*14 790	10 530	10 690	6 950	7 650	5 090			6 100	4 100	8.77
	-3 m	kg	*8 330	*8 330	*12 340	*12 340	*14 580	10 500	10 600	6 870	7 600	5 050			6 690	4 480	8.22
	-4.5 m	kg	*14 330	*14 330	*18 910	*18 910	*13 490	10 650	*10 110	6 950					*7 810	5 340	7.31
	-6 m	kg			*15 170	*15 170	*11 050	11 020							*7 990	7 460	5.9

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 AND OPTIONAL EQUIPMENT	
• = Standard / o = Optional	
Engine	
Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets T3 requirements	•
Cooling system by Direct Fan	•
Cooling system by Hydraulic Reversible Fan	o
Air filter, High efficiency	o
Air intake heater	o
Cyclone pre-cleaner	•
Fuel shut off valve	•
Engine block heater	o
Coolant heater by diesel	o
Precleaner, oil bath	o
Delayed engine Shutdown	•
Automatic engine shutdown	•
Water separator with heater	o
Fuel filter and water separator	•
Electric / Electronic control system	
Anti-theft with code lock system	o
Automatic idling system	•
Standard light	•
Extra light	•
Master electrical disconnect switch	•
Engine restart prevention circuit	•
Undercarriage and structures	
3-point side access	•
Guardrail fixed, GNSS	o
Lower frame,LC	•
Lower frame,STD	o
Link 600 / 700 / 800 / 900 mm triple grouser shoe	o
Link 600 mm double grouser shoe	o
Dual toolbox	•
Undercover STD / HD / XD	o
Hydraulic system	
EH (Electro-Hydraulic) control system	•
One touch power boost	•
Priority Adjustment	•
Boom down speed control	•
Shock reduction function	•
Joystick, Semi-long / 4 switch / 3 switch & 1 proportional / L8	o
Hydraulic oil mineral 32 / 46 / 68	o
Longlife hyd oil mineral 32 / 46 / 68	o
Pattern change	•
Boom float function	o
Comfort driving control	o
Dedicated drain line	o
Hose rupture valve for boom	o
Hose rupture valve for arm	o

STANDARD AND OPTIONAL EQUIPMENT	
• = Standard / o = Optional	
Cab and interior	
ROPS certified cab	•
FOG (Falling Object Guard)	o
FOPS (Falling Object Protection Structure)	o
8» HD display	•
Mechanical sus/Air sus seat	o
Seat belt, 2 inch 2 point / 3 inch 2 point / 3 inch 3 point	o
Front rain shield	o
Sun screens, front, roof, rear	•
Lower wiper	o
Sun shield, roof hatch	•
Safety net	o
Travel pedals and hand levers	•
Adjustable operator seat and joystick control console	•
Heater & air-conditioner, automatic	•
Air-conditioner, automatic	o
AM / FM / USB / Bluetooth stereo with Keypad	•
Large storage area	•
Pull-up type front window	•
Removable lower windshield	•
Digging equipment	
Boom: 6.2 m monoblock	o
Boom: 6.2 m HD	•
Boom: 6.2 m XD	o
Arm: 3.05 m	o
Arm: 3.05 m HD	•
Arm: 3.05 m XD	o
Arm: 2.55 m	o
Arm: 2.55 m HD	o
Machine controls	
Kinematic sensor package	o
Volvo Co-Pilot 2nd display, 12.8» touchable Full HD	o
Dig Assist, Start	o
Dig Assist, 2D	o
Dig Assist, In-Field Design	o
Dig Assist, Topcon 3D-MC	o
Dig Assist, Infield-Design Advanced	o
Dig Assist, On-Board Weighing	o
Dig Assist, Laser Receiver	o
Volvo Active Control	o
Dig Assist, Boundary Limit	o
Service and maintenance	
Swing out A/C condenser	•
Fuel filler pump	•
Jump start connector	o
Tool kit	o
Safety and security	
Travel alarm, beep / white noise	o
Flashing beacon, LED	•
Rear view camera	•
Side view camera	o
HD VSV (Volvo Smart View)	o

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