

V O L V O



Volvo Excavators 29.7-28.8 t 257 hp

EC300 HYBRID

Volvo Construction Equipment

EC300 HYBRID

A solid and reliable hybrid machine that delivers all the performance you would expect from a Volvo machine.



A solid and reliable solution

Commonly used in quarries, for trenching, digging or preparing construction sites, the EC300F Hybrid is a versatile machine. Customize it with purpose-built quality Volvo attachments, matched to your needs. Form one solid and reliable unit that delivers improved cycle times and increased fuel efficiency. This hybrid delivers all the performance you would expect from a Volvo machine.



Operator comfort

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



Smart View with Obstacle Detection

- Increased safety onsite and for the operator
- Radar warns for items outside the screen
- HD screen
- Human identifying alarm separate from other obstacles



Serviceability

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



Fuel Efficiency

- Up to 15% improvement
- Powerful and efficiency Volvo engine



Productivity

- 7% productivity improvement
- Volvo Active Control
- Dig Assist with On-Board Weighing
- Electro-hydraulic system
- Boom/Swing & Boom/Travel priority functions

A detailed view of the operator's cab interior of a Volvo construction vehicle. The central focus is the 'Co-Pilot' system, which includes a large 12.8-inch touchscreen display at the top showing a 'VIEW SELECTOR' menu with various icons for camera views and settings. Below this is a smaller digital instrument cluster displaying engine RPM (1609), fuel level, and other vital signs. To the right of the displays is a large, ergonomic joystick control with multiple buttons. The operator's seat, upholstered in teal fabric, is visible in the lower right. The overall design is modern and functional, emphasizing ease of use and visibility.

Co-Pilot

The new Volvo Co-Pilot features a new 12.8" display with full HD resolution. Associated with the new HD side and rear camera, it gives better visibility on your operations. Both hardware and software improvements provide increased control on the Dig Assist applications.

Smooth Control

You will find the new joystick controls offer smoother, easier operation. Because the controls are more precise, it is easier for you to achieve what you are trying to do, leading to better machine performance.

Volvo Smart View

Volvo Smart View with Obstacle Detection provides operators with a 360° view of the machines surroundings thanks to the camera and the new radar detection system. This high technology can identify obstacles as either an object or a human being, allowing the operator to take appropriate action.

Stay connected

In the comfort of the new cab, you can charge your mobile phone wirelessly or plugged in. You also have the option to use USB connections to access your music playlists or podcasts. The Bluetooth speaker enables you to have clear communication when making a phone call.

Comfort

The new style cab's ambition is to being more comfortable and make your work easier. A handy storage space allows you to store your coolbox or shoes while you work. You will enjoy reduced noise levels, built-in sunscreen and improved HVAC. Moreover, the new comfortable seat offer will allow to reduce the operator fatigue when working all day.



Serviceability

Minimizing downtime is key to protect your total cost of ownership. Easy access, clean and quick oil changes, as well as 1 000-hour intervals for engine oil, oil and fuel filter further increase your machine availability. Swing out condenser also makes cleaning of the radiator and oil cooler more convenient.

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 cooling performance

The EC300 is equipped with smart electric fans cooling system. It automatically adjusts independently the fans speed according to engine coolant temperature, hydraulic temperature and hydraulic workload. This minimizes unnecessary energy consumption and improve overall fuel efficiency. By reducing engine load and preventing overheating, the system ensures optimum excavator performance, extends component life and lowers operating costs.

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 overloading, 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.



Volvo EC300 Hybrid in detail

Engine

The latest generation, Volvo engine Stage V emissions compliant diesel engine fully meets the demands of the latest, emissions regulations. Featuring Volvo Advanced Combustion Technology (V-ACT), it is designed to deliver superior performance and fuel efficiency. The engine uses precise, high pressure fuel injectors, turbo charger and air-to-air intercooler, and electronic engine controls to optimize machine performance.

- **Air Filter:** 3-stage with precleaner

- **Automatic Idling System:** Reduces engine speed to idle when the levers and pedals are not activated resulting in less fuel consumption and low cab noise levels.

Engine	Volvo	Volvo D8M
Max power at	r/min	1 600
Net, ISO 9249/SAE J1349	kW	188
	hp	256
Gross, ISO 14396/SAE J1995	kW	189
	hp	257
Max torque	Nm	1 290
at engine speed	r/min	1 400
No. of cylinders		6
Displacement	l	7.7
Bore	mm	110
Stroke	mm	135

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. Contronics provides advanced monitoring of machine functions and important diagnostic information.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	170
Alternator	V/A	28 / 120
Start motor	V - kW	24 / 5.5

Hybrid

The uncomplicated and reliable hybrid solution, Volvo's novel hydraulic hybrid harvests 'free' energy generated by the down motion of the excavator's boom and uses it to supercharge the engine system.

The powerful and regular boom-down motions charge 32 litre hydraulic accumulators, which then deliver energy to drive hydraulic assist motors that help power the engine system. There are the same levels of controllability and performance as the standard EC400F, including the ability to work in ECO mode and Hybrid mode simultaneously.

Accumulator

No. of accumulator	1	
Displacement	l	32

Undercarriage and structures

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

EC300F L / LR		
Track shoe		2 x 50
Link pitch	mm	203
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
Bottom rollers		2 x 9
Top rollers		2 x 2

EC300F NL		
Track shoe		2 x 50
Link pitch	mm	203
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
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	11
Max. slew torque	kNm	115

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	5.6
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 air-conditioning and heating system: The pressurized and filtered cab air is supplied by an automatically controlled 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 12 different adjustments plus a seat belt for the operator's comfort and safety.

Sound Level

Sound level in cab according to ISO 6396

L _{pA}	dB	70
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External sound level according to ISO 6395, EU Noise Directive (2000/14/EC)

L _{WA}	dB	104
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Service Refill

Fuel tank	l	440
DEF/AdBlue® tank	l	50
Hydraulic system, total	l	385
Hydraulic tank	l	215
Engine oil	l	30
Engine coolant	l	44
Slew reduction unit	l	6
Travel reduction unit	l	2 x 6.0

Hydraulic System

The new electro-hydraulic system and new MCV (main control valve) use intelligent technology to control on-demand flow for high productivity, high-digging capacity and excellent fuel consumption.

The following important functions are included in the system:

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.

Arm priority: Gives priority to the arm operation for faster cycle times in leveling and for increased bucket filling when digging.

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.

Holding valves: Boom and arm holding valves prevent the digging equipment from creeping.

Power boost: All digging and lifting forces are increased.

Main pump: 2 x Variable displacement axial piston pumps

Maximum flow	l/min	2 x 276
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Pilot pump: Gear pump

Maximum flow	l/min	20.3
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Max. pressure

Implement	MPa	33.3 / 36.3
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Travel circuit	MPa	36.3
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Slew circuit	MPa	28.9
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Pilot circuit	MPa	3.9
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Hydraulic Cylinders

Boom		2
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Bore x Stroke	ø x mm	140 x 1 480
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2 piece boom		1
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Bore x Stroke	ø x mm	170 x 1 300
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Arm		1
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Bore x Stroke	ø x mm	150 x 1 745
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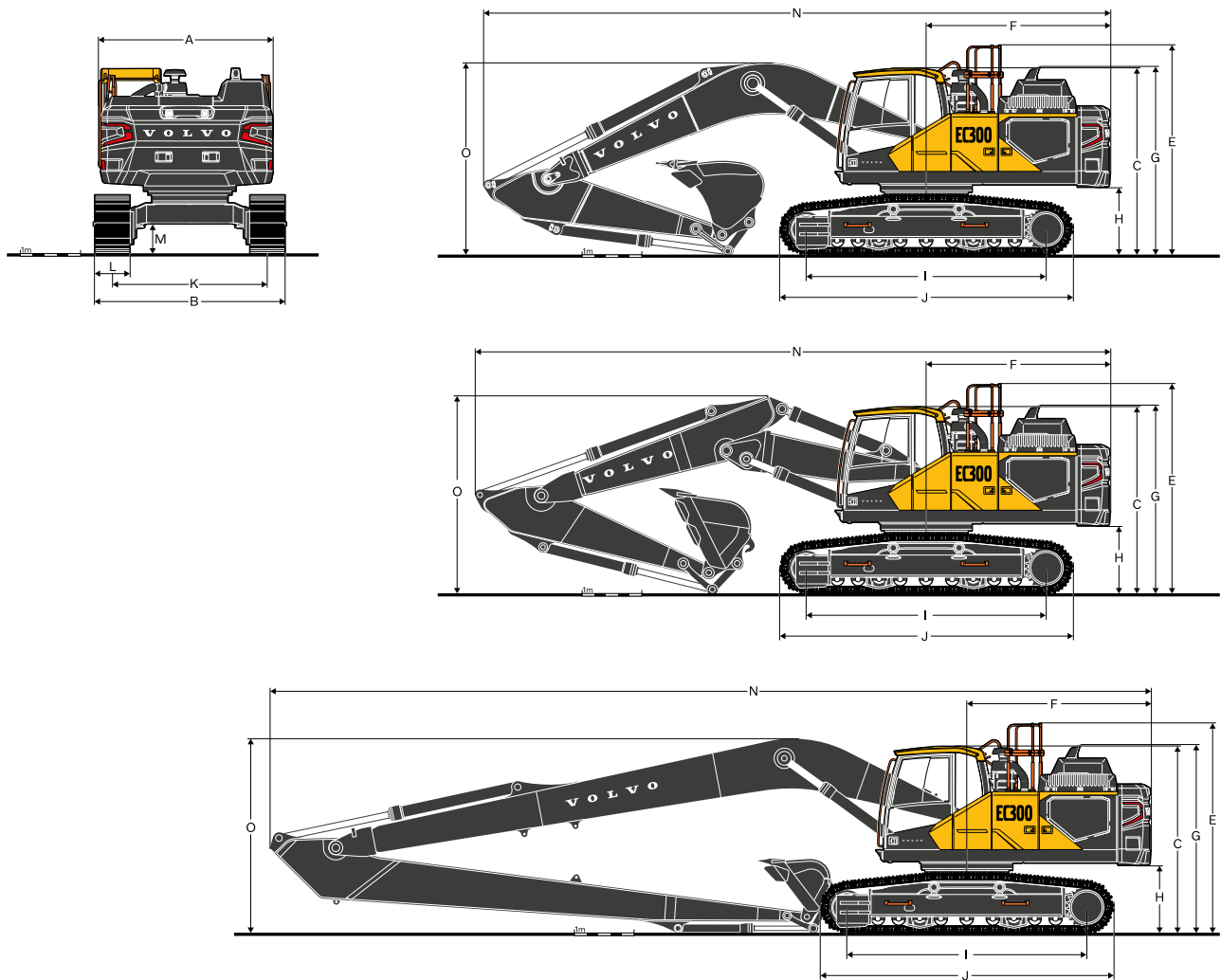
Bucket		1
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Bore x Stroke	ø x mm	140 x 1 140
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Bucket for LR boom		1
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Bore x Stroke	ø x mm	100 x 865
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Specifications

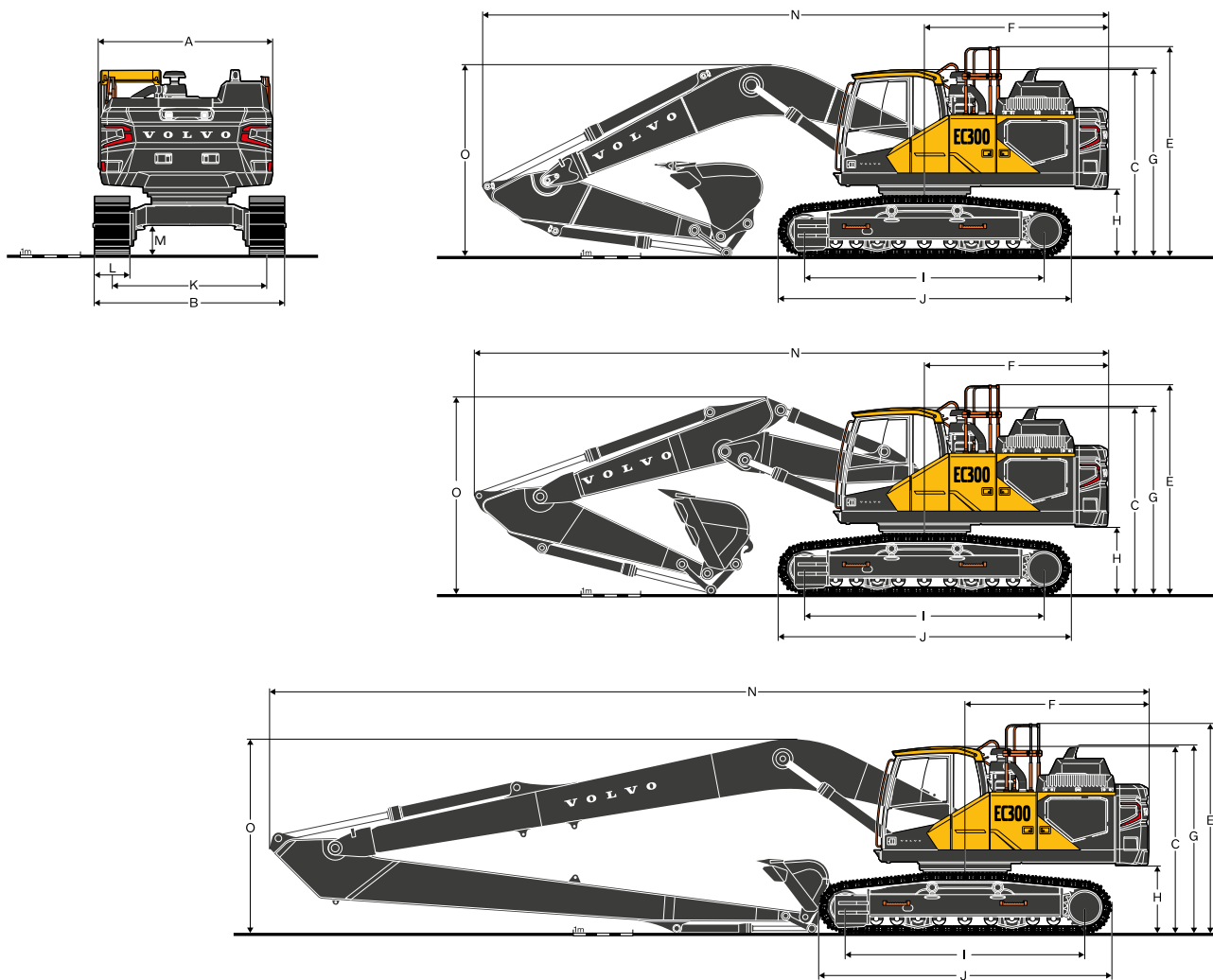


DIMENSIONS

	Unit	EC300F L						
Boom	m	6.2				2 piece boom 6.2		
Arm	m	2.55	2.75	3.05	3.7	2.55	3.05	3.7
A. Overall width of upper structure*	mm	2 890	2 890	2 890	2 890	2 890	2 890	2 890
B. Overall width	mm	3 190	3 190	3 190	3 190	3 190	3 190	3 190
C. Overall height of cab	mm	3 110	3 110	3 110	3 110	3 110	3 110	3 110
D. Overall height of handrail	mm	3 205	3 205	3 205	3 205	3 205	3 205	3 205
E. Overall height of guardrail	mm	3 470	3 470	3 470	3 470	3 470	3 470	3 470
F. Tail swing radius	mm	3 125	3 125	3 125	3 125	3 125	3 125	3 125
G. Overall height of engine hood	mm	2 920	2 920	2 920	2 920	2 920	2 920	2 920
H. Counterweight clearance **	mm	1 105	1 105	1 105	1 105	1 105	1 105	1 105
I. Tumbler length	mm	4 015	4 015	4 015	4 015	4 015	4 015	4 015
J. Track length	mm	4 865	4 865	4 865	4 865	4 865	4 865	4 865
K. Track gauge	mm	2 590	2 590	2 590	2 590	2 590	2 590	2 590
L. Shoe width	mm	600	600	600	600	600	600	600
M. Min. ground clearance **	mm	475	475	475	475	475	475	475
N. Overall length	mm	10 595	10 540	10 495	10 535	10 595	10 525	10 530
O. Overall height of boom	mm	3 460	3 420	3 335	3 575	3 360	3 300	3 485

* Exclude walkway, handrail

** Without shoe grouser



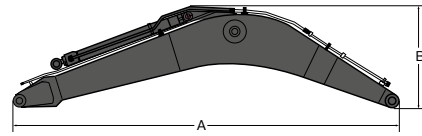
DIMENSIONS

	Unit	EC300F NL			EC300F LR
Boom	m	6.2			10.2
Arm	m	2.55	3.05	3.7	7.9
A. Overall width of upper structure*	mm	2 890	2 890	2 890	2 890
B. Overall width	mm	2 990	2 990	2 990	3 190
C. Overall height of cab	mm	3 110	3 110	3 110	3 110
D. Overall height of handrail	mm	3 205	3 205	3 205	3 205
E. Overall height of guardrail	mm	3 470	3 470	3 470	3 470
F. Tail swing radius	mm	3 125	3 125	3 125	3 155
G. Overall height of engine hood	mm	2 920	2 920	2 920	2 920
H. Counterweight clearance **	mm	1 105	1 105	1 105	1 105
I. Tumbler length	mm	4 015	4 015	4 015	4 015
J. Track length	mm	4 865	4 865	4 865	4 865
K. Track gauge	mm	2 390	2 390	2 390	2 590
L. Shoe width	mm	600	600	600	600
M. Min. ground clearance **	mm	475	475	475	475
N. Overall length	mm	10 595	10 495	10 535	14 555
O. Overall height of boom	mm	3 460	3 335	3 575	3 320

* Exclude walkway, handrail

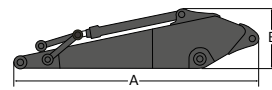
** Without shoe grouser

Specifications



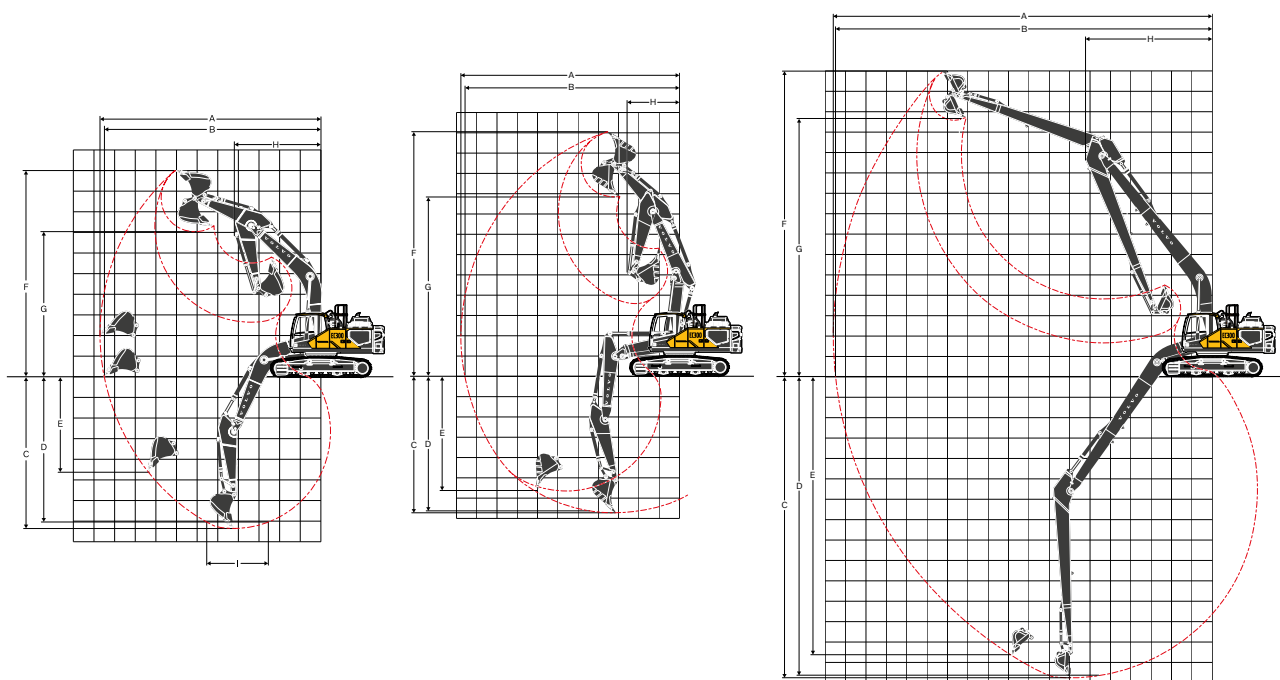
DIMENSIONS						
Description	Unit	Boom				
	m	6.2 GP	6.2 HD	6.2 XD	6.2 2-piece	10.2 LR
A. Length	mm	6 425	6 425	6 425	6 425	10 425
B. Height	mm	1 780	1 780	1 780	1 595	1 580
Width	mm	765	765	765	770	765
Weight	kg	2 505	2 735	2 865	3 390	3 410

* Includes arm cylinder, piping and pin



DIMENSIONS								
Description	Unit	Arm						
	m	2.55 HD	3.05 GP	3.05 HD	2.75 XD	3.05 XD	3.7 GP	7.9 LR
A. Length	mm	3 720	4 145	4 145	3 860	4 145	4 800	9 055
B. Height	mm	1 005	1 010	1 010	1 010	1 010	1 005	1 095
Width	mm	560	560	560	560	560	560	435
Weight	kg	1 525	1 535	1 595	1 585	1 680	1 660	1 760

* Includes cylinder, linkage and pin



WORKING RANGES WITH DIRECT FIT BUCKET

Description	Unit	EC300F L, NL							EC300F LR
Boom	m	6.2				2 piece boom 6.2			10.2
Arm	m	2.55	2.75	3.05	3.7	2.55	3.05	3.7	7.9
A. Max. digging reach	mm	10 185	10 425	10 715	11 320	10 250	10 780	11 395	18 590
B. Max. digging reach on ground	mm	9 980	10 225	10 520	11 135	10 045	10 585	11 210	18 480
C. Max. digging depth	mm	6 845	7 045	7 345	7 995	6 210	6 735	7 375	14 755
D. Max.digging depth (l=2.44 m level)	mm	6 605	6 840	7 160	7 835	6 105	6 640	7 290	14 650
E. Max. vertical wall digging depth	mm	5 105	5 540	5 870	6 460	4 910	5 500	6 100	13 515
F. Max. cutting height	mm	9 565	9 820	9 990	10 275	11 555	12 070	12 570	14 935
G. Max. dumping height	mm	6 675	6 885	7 045	7 330	8 355	8 850	9 350	12 600
H. Min. front swing radius	mm	4 220	4 220	4 185	4 240	2 755	2 575	2 775	6 190

DIGGING FORCES WITH DIRECT FIT BUCKET

Breakout force (bucket)	Normal	SAE J1179	kN	164	164	164	164	164	164	164	69
	Power boost	SAE J1179	kN	179	179	179	179	179	179	179	69
	Normal	ISO 6015	kN	196	196	197	196	196	197	196	80
	Power boost	ISO 6015	kN	214	214	214	214	214	214	214	80
Tearout force (arm)	Normal	SAE J1179	kN	158	145	132	116	158	132	116	51
	Power boost	SAE J1179	kN	172	158	144	126	172	144	126	51
	Normal	ISO 6015	kN	165	151	137	120	165	137	120	52
	Power boost	ISO 6015	kN	179	165	150	130	179	150	130	52
Rotation angle, bucket			°	179	179	179	179	179	179	179	178

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	30 560	59.0	3 190	30 850	59.5	3 190
	600 (HD)	30 770	59.4	3 190	31 060	59.9	3 190
	700	31 140	51.5	3 290	31 430	52.0	3 290
	800	31 510	45.6	3 390	31 800	46.0	3 390
	900	31 880	41.0	3 490	32 160	41.4	3 490
Double grouser	600	30 930	59.7	3 190	31 220	60.2	3 190
	700	31 340	51.8	3 190	31 630	52.3	3 190
Single grouser	700	30 970	51.2	3 340	31 260	51.7	3 340

		EC300F L, 6.2 m GP boom, 3.05 m GP arm, 1 354 kg bucket, 6 200 kg counterweight			EC300F L, 6.2 m HD boom, 3.05 m HD arm, 1 354 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	31 060	59.9	3 190	31 440	60.7	3 190
	600 (HD)	31 270	60.3	3 190	31 650	61.1	3 190
	700	31 640	52.3	3 290	32 020	52.9	3 290
	800	32 010	46.3	3 390	32 390	46.9	3 390
	900	32 380	41.6	3 490	32 760	42.1	3 490
Double grouser	600	31 440	60.7	3 190	31 810	61.4	3 190
	700	31 840	52.7	3 190	32 220	53.3	3 190
Single grouser	700	31 470	52.0	3 340	31 850	52.7	3 340

		EC300F L, 6.2 m XD boom, 3.05 m XD arm, 1 354 kg bucket, 6 200 kg counterweight			EC300F L, 6.2 m 2-pieces boom, 3.05 m GP arm, 1 354 kg bucket, 6 200 kg counterweight		
Description	Shoe width	Operating weight	Ground pressure	Overall width			
	mm	kg	kPa	mm			
Triple grouser	600	31 500	60.8	3 190			
	600 (HD)	31 710	61.2	3 190			
	700	32 080	53.0	3 290			
	800	32 450	47.0	3 390			
	900	32 820	42.2	3 490			
Double grouser	600	31 880	61.5	3 190			
	700	32 280	53.4	3 190			
Single grouser	700	31 910	52.8	3 340			

		EC300F L, 6.2 m 2-pieces boom, 3.05 m HD arm, 1 354 kg bucket, 6 200 kg counterweight		
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GROUND PRESSURE

EC300F NL

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	30 410	58.7	2 990	30 700	59.2	2 990
	600 (HD)	30 610	59.1	2 990	30 900	59.6	2 990
	700	30 980	51.2	3 090	31 270	51.7	3 090
	800	31 350	45.4	3 190	31 640	45.8	3 190
	900	31 720	40.8	3 290	32 010	41.2	3 290
Double grouser	600	30 780	59.4	2 990	31 070	59.9	2 990
	700	31 180	51.6	3 090	31 470	52.0	3 090
Single grouser	700	30 820	51.0	3 090	31 110	51.4	3 090

		EC300F NL, 6.2 m GP boom, 3.05 m GP arm, 1 354 kg bucket, 6 200 kg counterweight			EC300F NL, 6.2 m HD boom, 3.05 m HD arm, 1 354 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	31 290	60.4	2 990	31 350	60.5	2 990
	600 (HD)	31 490	60.8	2 990	31 560	60.9	2 990
	700	31 860	52.7	3 090	31 920	52.8	3 090
	800	32 230	46.6	3 190	32 290	46.7	3 190
	900	32 600	41.9	3 290	32 660	42.0	3 290
Double grouser	600	31 660	61.1	2 990	31 720	61.2	2 990
	700	32 060	53.0	3 090	32 120	53.1	3 090
Single grouser	700	31 700	52.4	3 090	31 760	52.5	3 090
		EC300F NL, 6.2 m 2-pieces boom, 3.05 m GP arm, 1 354 kg bucket, 6 200 kg counterweight			EC300F NL, 6.2 m 2-pieces boom, 3.05 m HD arm, 1 354 kg bucket, 6 200 kg counterweight		

EC300F LR

Description	Shoe width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm
Triple grouser	600	31 510	60.8	3 190
	600 (HD)	31 720	61.2	3 190
	700	32 090	53.1	3 290
	800	32 460	47.0	3 390
	900	32 830	42.2	3 490
		EC300F LR, 10.2 m LR boom, 7.9 m LR arm, 472 kg bucket, 6 900 kg counterweight		

Specifications

BUCKET SELECTION GUIDE

EC300F L with 600 mm shoe, 6 200 kg counterweight

Bucket Type		Capacity	Cutting width	Weight	Teeth	Recommended maximum material density (kg/m ³)					
						6.2 m GP Boom			6.2 m 2-piece Boom		
		L	mm	kg	EA	2.55 m	3.05 m	3.7 m	2.55 m	3.05 m	3.7 m
Direct fit bucket	General purpose	550	600	883	3	C	C	C	C	C	C
		660	750	867	3	C	C	C	C	C	C
		770	900	996	4	C	C	C	C	C	C
		950	1 090	1 025	4	C	C	C	C	C	C
		1 140	1 240	1 192	5	C	C	C	C	C	C
		1 320	1 390	1 209	5	C	C	C	C	C	C
		1 450	1 490	1 270	5	C	C	C	C	C	C
		1 510	1 540	1 314	5	C	C	C	C	C	C
		1 760	1 740	1 448	6	C	C	B	C	C	B
		1 930	1 840	1 529	6	C	C	B	C	B	A
		2 060	1 950	1 590	6	C	B	A	C	B	A
	Heavy duty	550	600	881	3	D	D	D	D	D	D
		660	750	920	3	D	D	D	D	D	D
		1 140	1 240	1 214	5	D	D	D	D	D	D
		1 270	1 405	1 336	5	D	D	D	D	D	D
		1 320	1 390	1 301	5	D	D	D	D	D	D
		1 510	1 540	1 387	5	D	D	D	D	D	C
		1 690	1 690	1 485	5	D	D	B	D	D	B
		1 930	1 840	1 623	6	C	B	A	C	B	A
Direct fit bucket (UQC interface)	General purpose	550	600	883	3	C	C	C	C	C	C
		660	750	867	3	C	C	C	C	C	C
		770	900	996	4	C	C	C	C	C	C
		950	1 090	1 025	4	C	C	C	C	C	C
		1 140	1 240	1 192	5	C	C	C	C	C	C
		1 320	1 390	1 209	5	C	C	C	C	C	C
		1 450	1 490	1 270	5	C	C	C	C	C	B
		1 510	1 540	1 314	5	C	C	B	C	C	B
		1 760	1 740	1 448	6	C	B	A	C	B	A
		1 930	1 840	1 529	6	B	B	A	B	A	x
		2 060	1 950	1 590	6	B	A	x	B	A	x
	Heavy duty	550	600	881	3	D	D	D	D	D	D
		660	750	920	3	D	D	D	D	D	D
		1 140	1 240	1 214	5	D	D	D	D	D	D
		1 320	1 390	1 301	5	D	D	C	D	D	C
		1 510	1 540	1 387	5	D	D	B	D	C	B
		1 690	1 690	1 485	5	D	B	A	C	B	A
		1 930	1 840	1 623	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

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

BUCKET SELECTION GUIDE

EC300F NL with 600 mm shoe, 6 200 kg counterweight

Bucket Type		Capacity	Cutting width	Weight	Teeth	Recommended maximum material density (kg/m ³)					
						6.2 m Boom			6.2 m 2-piece Boom		
		L	mm	kg	EA	2.55 m	3.05 m	3.7 m	2.55 m	3.05 m	3.7 m
Direct fit bucket	General purpose	550	600	883	3	C	C	C	C	C	C
		660	750	867	3	C	C	C	C	C	C
		770	900	996	4	C	C	C	C	C	C
		950	1 090	1 025	4	C	C	C	C	C	C
		1 140	1 240	1 192	5	C	C	C	C	C	C
		1 320	1 390	1 209	5	C	C	C	C	C	C
		1 450	1 490	1 270	5	C	C	C	C	C	C
		1 510	1 540	1 314	5	C	C	C	C	C	B
		1 760	1 740	1 448	6	C	B	B	C	B	A
		1 930	1 840	1 529	6	C	B	A	B	B	X
		2 060	1 950	1 590	6	B	A	X	B	A	X
	Heavy duty	550	600	881	3	D	D	D	D	D	D
		660	750	920	3	D	D	D	D	D	D
		1 140	1 240	1 214	5	D	D	D	D	D	D
		1 270	1 405	1 336	5	D	D	D	D	D	D
		1 320	1 390	1 301	5	D	D	D	D	D	D
		1 510	1 540	1 387	5	D	D	B	D	D	B
		1 690	1 690	1 485	5	D	C	B	D	B	A
		1 930	1 840	1 623	6	B	B	A	B	A	x
Direct fit bucket (UQC interface)	General purpose	550	600	883	3	C	C	C	C	C	C
		660	750	867	3	C	C	C	C	C	C
		770	900	996	4	C	C	C	C	C	C
		950	1 090	1 025	4	C	C	C	C	C	C
		1 140	1 240	1 192	5	C	C	C	C	C	C
		1 320	1 390	1 209	5	C	C	B	C	C	B
		1 450	1 490	1 270	5	C	C	B	C	B	A
		1 510	1 540	1 314	5	C	B	A	C	B	A
		1 760	1 740	1 448	6	B	A	x	B	A	x
		1 930	1 840	1 529	6	B	A	x	A	x	x
		2 060	1 950	1 590	6	A	X	x	A	x	x
	Heavy duty	550	600	881	3	D	D	D	D	D	D
		660	750	920	3	D	D	D	D	D	D
		1 140	1 240	1 214	5	D	D	C	D	D	C
		1 320	1 390	1 301	5	D	D	B	D	C	B
		1 510	1 540	1 387	5	C	B	A	C	B	A
		1 690	1 690	1 485	5	B	A	x	B	A	x
		1 930	1 840	1 623	6	A	x	x	A	x	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

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

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. m
			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	
Boom : 6.2 m GP Arm : 2.55 m HD Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg							*7 700	*7 700					*7 860	7 620	6.52
	6.0 m	kg							*8 040	*8 040	*7 850	6 010			*7 860	5 940	7.55
	4.5 m	kg					*11 350	*11 350	*9 140	8 300	*8 170	5 900			7 910	5 130	8.18
	3.0 m	kg					*14 510	11 910	*10 570	7 890	*8 830	5 710			7 340	4 730	8.50
	1.5 m	kg					*16 660	11 290	*11 830	7 550	8 700	5 530			7 180	4 600	8.54
	0 m	kg					*17 250	11 080	11 980	7 340	8 570	5 410			7 410	4 720	8.31
	-1.5 m	kg			*12 860	*12 860	*16 830	11 100	11 920	7 290	8 550	5 400			8 130	5 150	7.78
	-3.0 m	kg			*20 980	*20 980	*15 460	11 260	*11 670	7 390					*9 800	6 160	6.88
	-4.5 m	kg			*16 730	*16 730	*12 450	11 630							*10 050	8 830	5.44
Boom : 6.2 m GP Arm : 3.05 m GP Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg													*6 370	*6 370	7.20
	6.0 m	kg									*7 220	6 130			*6 100	5 320	8.15
	4.5 m	kg					*10 260	*10 260	*8 520	8 440	*7 700	5 980			*6 110	4 670	8.73
	3.0 m	kg					*13 460	12 210	*10 030	8 010	*8 450	5 780	*6 580	4 370	*6 300	4 340	9.03
	1.5 m	kg					*16 020	11 470	*11 440	7 630	8 750	5 570	6 660	4 280	6 590	4 230	9.07
	0 m	kg					*17 140	11 140	12 030	7 390	8 590	5 430			6 760	4 320	8.85
	-1.5 m	kg	*7 600	*7 600	*11 740	*11 740	*17 120	11 080	11 920	7 290	8 520	5 370			7 320	4 660	8.36
	-3.0 m	kg	*13 870	*13 870	*19 430	*19 430	*16 120	11 180	11 970	7 330	8 600	5 440			8 550	5 410	7.53
	-4.5 m	kg			*18 960	*18 960	*13 770	11 460	*10 060	7 560					*9 440	7 180	6.24
Boom : 6.2 m GP Arm : 3.7 m GP Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg									*6 320	6 270			*5 030	*5 030	7.96
	6.0 m	kg									*6 410	6 220			*4 840	4 690	8.82
	4.5 m	kg							*7 580	*7 580	*7 000	6 040	*6 470	4 480	*4 830	4 180	9.36
	3.0 m	kg					*11 920	*11 920	*9 160	8 110	*7 840	5 800	6 770	4 370	*4 970	3 900	9.64
	1.5 m	kg					*14 860	11 620	*10 730	7 670	*8 720	5 570	6 640	4 250	*5 280	3 800	9.67
	0 m	kg			*6 830	*6 830	*16 590	11 120	*11 910	7 350	8 550	5 380	6 530	4 150	*5 790	3 860	9.47
	-1.5 m	kg	*7 020	*7 020	*11 040	*11 040	*17 090	10 930	11 820	7 190	8 430	5 270	6 500	4 120	6 480	4 110	9.01
	-3.0 m	kg	*11 670	*11 670	*16 660	*16 660	*16 590	10 960	11 800	7 170	8 430	5 280			7 380	4 660	8.25
	-4.5 m	kg	*17 420	*17 420	*21 200	*21 200	*14 920	11 160	*11 110	7 310					*8 800	5 840	7.10
Boom : 6.2 m HD Arm : 2.55 m HD Shoe : 800 mm CWT : 6 200 kg	7.5 m	kg							*7 660	*7 660					*7 810	7 800	6.52
	6.0 m	kg							*8 000	*8 000	*7 790	6 150			*7 810	6 070	7.55
	4.5 m	kg					*11 300	*11 300	*9 090	8 500	*8 110	6 040			*7 950	5 240	8.18
	3.0 m	kg					*14 420	12 170	*10 500	8 070	*8 770	5 840			7 530	4 830	8.50
	1.5 m	kg					*16 540	11 510	*11 750	7 700	8 930	5 650			7 370	4 700	8.54
	0 m	kg					*17 110	11 300	12 290	7 490	8 790	5 530			7 600	4 820	8.30
	-1.5 m	kg			*12 890	*12 890	*16 690	11 310	12 230	7 440	8 770	5 510			8 340	5 260	7.77
	-3.0 m	kg			*20 770	*20 770	*15 310	11 480	*11 560	7 540					*9 720	6 290	6.88
	-4.5 m	kg			*16 540	*16 540	*12 320	11 860							*9 950	9 030	5.43
Boom : 6.2 m HD Arm : 3.05 m HD Shoe : 800 mm CWT : 6 200 kg	7.5 m	kg													*6 360	*6 360	7.21
	6.0 m	kg									*7 140	6 250			*6 090	5 410	8.15
	4.5 m	kg					*10 180	*10 180	*8 440	*8 440	*7 610	6 090			*6 090	4 740	8.73
	3.0 m	kg					*13 330	12 430	*9 920	8 160	*8 350	5 870	*6 570	4 430	*6 290	4 400	9.03
	1.5 m	kg					*15 840	11 650	*11 310	7 750	8 950	5 660	6 800	4 340	6 730	4 290	9.07
	0 m	kg					*16 940	11 290	*12 220	7 490	8 770	5 500			6 900	4 380	8.85
	-1.5 m	kg	*7 600	*7 600	*11 740	*11 740	*16 910	11 220	12 170	7 380	8 700	5 440			7 480	4 720	8.35
	-3.0 m	kg	*13 880	*13 880	*19 440	*19 440	*15 910	11 330	*11 940	7 420	8 790	5 510			8 740	5 490	7.53
	-4.5 m	kg			*18 680	*18 680	*13 570	11 630	*9 900	7 670					*9 300	7 290	6.24

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 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. m
			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	
Boom : 6.2 m HD Arm : 3.7 m GP Shoe : 800 mm CWT : 6 200 kg	7.5 m	kg									*6 290	*6 290			*5 020	*5 020	7.96
	6.0 m	kg									*6 380	6 370			*4 830	4 810	8.82
	4.5 m	kg							*7 550	*7 550	*6 960	6 190	*6 480	4 590	*4 830	4 270	9.36
	3.0 m	kg					*11 860	*11 860	*9 110	8 310	*7 790	5 940	6 960	4 470	*4 980	3 990	9.64
	1.5 m	kg					*14 770	11 870	*10 660	7 850	*8 660	5 690	6 820	4 340	*5 280	3 890	9.67
	0 m	kg			*6 840	*6 840	*16 460	11 340	*11 820	7 510	8 770	5 500	6 710	4 240	*5 790	3 940	9.47
	-1.5 m	kg	*7 040	*7 040	*11 050	*11 050	*16 960	11 150	12 130	7 340	8 650	5 380	6 670	4 210	*6 650	4 200	9.01
	-3.0 m	kg	*11 680	*11 680	*16 680	*16 680	*16 440	11 180	12 100	7 320	8 650	5 380			7 570	4 760	8.25
	-4.5 m	kg	*17 440	*17 440	*20 990	*20 990	*14 780	11 390	*11 000	7 460					*8 720	5 970	7.10
	-6.0 m	kg			*15 460	*15 460	*10 970	*10 970							*8 910	*8 910	5.28
Boom : 6.2 m VA Arm : 2.55 m HD Shoe : 600 mm CWT : 6 200 kg	9 m	kg					*11 670	*11 670							*10 620	*10 620	4.94
	7.5 m	kg					*11 250	*11 250	*10 000	8 780					*9 300	7 430	6.61
	6 m	kg			*12 150	*12 150	*12 240	*12 240	*10 260	8 640	*9 170	5 970			*8 880	5 790	7.63
	4.5 m	kg					*14 250	12 860	*11 070	8 270	9 130	5 850			7 800	5 000	8.25
	3 m	kg					*16 370	11 800	*11 980	7 820	8 900	5 650			7 240	4 610	8.56
	1.5 m	kg							12 200	7 450	8 690	5 450			7 090	4 480	8.60
	0 m	kg					*16 200	10 920	11 960	7 240	8 550	5 330			7 310	4 600	8.37
	-1.5 m	kg					*14 310	10 950	*11 230	7 190	*8 520	5 320			*7 790	5 030	7.85
	-3 m	kg					*11 300	11 150	*8 910	7 310					*6 930	6 020	6.96
	-4.5 m	kg															
Boom : 6.2 m VA Arm : 3.05 m HD Shoe : 600 mm CWT : 6 200 kg	9 m	kg					*9 650	*9 650							*7 270	*7 270	5.83
	7.5 m	kg					*9 080	*9 080	*9 290	8 950					*6 440	6 370	7.29
	6 m	kg					*9 640	*9 640	*9 690	8 770	*8 690	6 070			*6 120	5 150	8.22
	4.5 m	kg					*13 360	13 160	*10 570	8 390	*9 010	5 910			*6 070	4 520	8.8
	3 m	kg					*15 670	12 080	*11 600	7 920	8 950	5 680	6 710	4 270	*6 220	4 200	9.10
	1.5 m	kg					*16 960	11 260	12 270	7 500	8 700	5 460	6 610	4 180	6 470	4 090	9.13
	0 m	kg					*16 660	10 910	11 960	7 230	8 530	5 310			6 640	4 180	8.92
	-1.5 m	kg			*10 890	*10 890	*15 180	10 860	*11 640	7 130	8 470	5 250			7 190	4 510	8.43
	-3 m	kg					*12 570	10 990	*9 800	7 190	*6 960	5 340			*6 660	5 250	7.61
	-4.5 m	kg															
Boom : 6.2 m VA Arm : 3.7 m GP Shoe : 600 mm CWT : 6 200 kg	10.5 m	kg					*7 500	*7 500							*7 020	*7 020	4.67
	9 m	kg							*7 290	*7 290					*5 620	*5 620	6.76
	7.5 m	kg							*7 540	*7 540	*6 740	6 260			*5 080	*5 080	8.05
	6 m	kg					*7 120	*7 120	*7 880	*7 880	*7 770	6 210			*4 860	4 570	8.90
	4.5 m	kg			*10 020	*10 020	*9 900	*9 900	*9 630	8 580	*8 540	6 020	*6 780	4 430	*4 820	4 060	9.44
	3 m	kg					*14 630	12 470	*11 040	8 070	9 040	5 760	6 770	4 320	*4 920	3 790	9.71
	1.5 m	kg					*16 480	11 500	*12 000	7 590	8 750	5 500	6 630	4 190	*5 180	3 700	9.75
	0 m	kg			*6 060	*6 060	*16 900	10 960	12 000	7 250	8 530	5 300	6 520	4 090	*5 630	3 760	9.55
	-1.5 m	kg			*10 300	*10 300	*15 990	10 780	11 800	7 080	8 410	5 190	6 490	4 060	*6 390	4 010	9.09
	-3 m	kg			*15 990	*15 990	*13 930	10 820	*10 680	7 070	*8 090	5 200			*6 470	4 550	8.34
	-4.5 m	kg					*10 450	*10 450	*7 960	7 240							7.21

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 NL

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. m
			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	
Boom : 6.2 m GP Arm : 2.55 m HD Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg							*7 700	*7 700					*7 860	7 020	6.52
	6.0 m	kg							*8 040	7 960	*7 850	5 540			*7 860	5 470	7.55
	4.5 m	kg					*11 350	*11 350	*9 140	7 630	*8 170	5 430			7 870	4 720	8.18
	3.0 m	kg					*14 510	10 800	*10 570	7 230	*8 830	5 240			7 300	4 340	8.50
	1.5 m	kg					*16 660	10 200	*11 830	6 890	8 660	5 070			7 140	4 210	8.54
	0 m	kg					*17 250	10 010	11 920	6 690	8 530	4 950			7 370	4 320	8.31
	-1.5 m	kg			*12 860	*12 860	*16 830	10 020	11 870	6 640	8 510	4 930			8 090	4 710	7.78
	-3.0 m	kg			*20 980	20 060	*15 460	10 180	*11 670	6 730					9 770	5 630	6.88
	-4.5 m	kg			*16 730	*16 730	*12 450	10 530							*10 050	8 060	5.44
Boom : 6.2 m GP Arm : 3.05 m GP Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg													*6 370	6 060	7.20
	6.0 m	kg									*7 220	5 650			*6 100	4 900	8.15
	4.5 m	kg					*10 260	*10 260	*8 520	7 760	*7 700	5 510			*6 110	4 290	8.73
	3.0 m	kg					*13 460	11 100	*10 030	7 350	*8 450	5 310	*6 580	4 000	*6 300	3 980	9.03
	1.5 m	kg					*16 020	10 380	*11 440	6 970	8 710	5 110	6 630	3 920	6 550	3 880	9.07
	0 m	kg					*17 140	10 060	11 970	6 730	8 550	4 960			6 730	3 950	8.85
	-1.5 m	kg	*7 600	*7 600	*11 740	*11 740	*17 120	10 000	11 860	6 630	8 480	4 910			7 280	4 260	8.36
	-3.0 m	kg	*13 870	*13 870	*19 430	*19 430	*16 120	10 100	11 910	6 670	8 560	4 980			8 510	4 950	7.53
	-4.5 m	kg			*18 960	*18 960	*13 770	10 370	*10 060	6 900					*9 440	6 560	6.24
Boom : 6.2 m GP Arm : 3.7 m GP Shoe : 600 mm CWT : 6 200 kg	7.5 m	kg									*6 320	5 790			*5 030	*5 030	7.96
	6.0 m	kg									*6 410	5 740			*4 840	4 320	8.82
	4.5 m	kg							*7 580	*7 580	*7 000	5 560	*6 470	4 120	*4 830	3 830	9.36
	3.0 m	kg					*11 920	11 380	*9 160	7 440	*7 840	5 330	6 730	4 010	*4 970	3 570	9.64
	1.5 m	kg					*14 860	10 520	*10 730	7 010	8 710	5 100	6 600	3 890	*5 280	3 480	9.67
	0 m	kg			*6 830	*6 830	*16 590	10 040	*11 910	6 700	8 500	4 910	6 500	3 790	*5 790	3 530	9.47
	-1.5 m	kg	*7 020	*7 020	*11 040	*11 040	*17 090	9 860	11 760	6 540	8 390	4 810	6 460	3 760	6 450	3 750	9.01
	-3.0 m	kg	*11 670	*11 670	*16 660	*16 660	*16 590	9 890	11 740	6 520	8 390	4 810			7 340	4 260	8.25
	-4.5 m	kg	*17 420	*17 420	*21 200	19 820	*14 920	10 080	*11 110	6 650					*8 800	5 330	7.10
Boom : 6.2 m VA Arm : 2.55 m HD Shoe : 600 mm CWT : 6 200 kg	-6.0 m	kg			*15 660	*15 660	*11 100	10 540							*9 010	8 360	5.29
	9 m	kg					*11 670	*11 670							*10 620	*10 620	4.94
	7.5 m	kg					*11 250	*11 250	*10 000	8 090					*9 300	6 830	6.61
	6 m	kg			*12 150	*12 150	*12 240	*12 240	*10 260	7 940	*9 170	5 480			*8 880	5 320	7.63
	4.5 m	kg					*14 250	11 710	*11 070	7 580	9 090	5 370			7 760	4 580	8.25
	3 m	kg					*16 370	10 680	*11 980	7 140	8 860	5 170			7 200	4 210	8.56
	1.5 m	kg							12 140	6 780	8 650	4 980			7 050	4 090	8.60
	0 m	kg					*16 200	9 830	11 900	6 570	8 510	4 860			7 270	4 190	8.37
	-1.5 m	kg					*14 310	9 860	*11 230	6 530	8 500	4 850			*7 790	4 580	7.85
Boom : 6.2 m VA Arm : 3.05 m HD Shoe : 600 mm CWT : 6 200 kg	-3 m	kg					*11 300	10 050	*8 910	6 640					*6 930	5 490	6.96
	9 m	kg					*9 650	*9 650							*7 270	*7 270	5.83
	7.5 m	kg					*9 080	*9 080	*9 290	8 250					*6 440	5 860	7.29
	6 m	kg					*9 640	*9 640	*9 690	8 070	*8 690	5 590			*6 120	4 730	8.22
	4.5 m	kg					*13 360	12 000	*10 570	7 700	*9 010	5 430			*6 070	4 140	8.80
	3 m	kg					*15 670	10 950	*11 600	7 240	8 910	5 200	6 680	3 900	*6 220	3 830	9.10
	1.5 m	kg					*16 960	10 160	12 210	6 820	8 660	4 990	6 580	3 810	6 440	3 730	9.13
	0 m	kg					*16 660	9 820	11 900	6 560	8 490	4 830			6 610	3 810	8.92
	-1.5 m	kg			*10 890	*10 890	*15 180	9 770	*11 640	6 470	8 420	4 780			7 160	4 110	8.43
Boom : 6.2 m VA Arm : 3.7 m GP Shoe : 600 mm CWT : 6 200 kg	-3 m	kg					*12 570	9 900	*9 800	6 530	*6 960	4 870			*6 660	4 790	7.61
	10.5 m	kg					*7 500	*7 500							*7 020	*7 020	4.67
	9 m	kg							*7 290	*7 290					*5 620	*5 620	6.76
	7.5 m	kg							*7 540	*7 540	*6 740	5 770			*5 080	5 050	8.05
	6 m	kg					*7 120	*7 120	*7 880	*7 880	*7 770	5 720			*4 860	4 190	8.90
	4.5 m	kg			*10 020	*10 020	*9 900	*9 900	*9 630	7 880	*8 540	5 530	*6 780	4 060	*4 820	3 720	9.44
	3 m	kg					*14 630	11 330	*11 040	7 390	9 000	5 280	6 740	3 950	*4 920	3 460	9.71
	1.5 m	kg					*16 480	10 390	*12 000	6 920	8 710	5 020	6 590	3 820	*5 180	3 370	9.75
	0 m	kg			*6 060	*6 060	*16 900	9 860	11 940	6 580	8 490	4 830	6 480	3 720	*5 630	3 420	9.55
Boom : 6.2 m VA Arm : 3.7 m GP Shoe : 600 mm CWT : 6 200 kg	-1.5 m	kg			*10 300	*10 300	*15 990	9 680	11 740	6 420	8 370	4 720	6 450	3 690	6 360	3 640	9.09
	-3 m	kg			*15 990	*15 990	*13 930	9 730	*10 680	6 410	*8 090	4 730			*6 470	4 140	8.34
	-4.5 m	kg					*10 450	9 970	*7 960	6 570							7.21

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 EC300F LR

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		0 m		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m	
			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
Boom : 10.2 m LR Arm : 7.9 m LR Shoe : 800 mm CWT : 6 900 kg	13.5 m	kg														
	12.0 m	kg														
	10.5 m	kg														
	9.0 m	kg														
	7.5 m	kg														
	6.0 m	kg														
	4.5 m	kg														
	3.0 m	kg					*4 180	*4 180					*5 290	*5 290	*4 500	*4 500
	1.5 m	kg							*5 640	*5 640	*7 990	7 360	*6 170	5 460	*5 090	4 230
	0 m	kg					*1 820	*1 820	*4 000	*4 000	*9 090	6 570	*6 920	4 940	*5 620	3 870
	-1.5 m	kg			*1 790	*1 790	*2 380	*2 380	*3 940	*3 940	*7 290	6 070	*7 500	4 560	*6 060	3 590
	-3.0 m	kg	*2 450	*2 450	*2 470	*2 470	*3 040	*3 040	*4 370	*4 370	*7 040	5 800	7 580	4 310	5 880	3 390
	-4.5 m	kg	*3 000	*3 000	*3 160	*3 160	*3 770	*3 770	*5 020	*5 020	*7 450	5 680	7 430	4 180	5 740	3 270
	-6.0 m	kg	*3 610	*3 610	*3 890	*3 890	*4 560	*4 560	*5 850	*5 850	*8 250	5 680	7 390	4 140	5 690	3 220
	-7.5 m	kg	*4 280	*4 280	*4 670	*4 670	*5 450	*5 450	*6 850	*6 850	*9 420	5 770	7 430	4 170	5 700	3 230
	-9.0 m	kg	*5 000	*5 000	*5 520	*5 520	*6 450	*6 450	*8 060	*8 060	*9 240	5 940	*7 440	4 280	5 780	3 300
	-10.5 m	kg			*6 460	*6 460	*7 610	*7 610	*9 590	*9 590	*8 300	6 190	*6 740	4 460	*5 580	3 450
	-12.0 m	kg					*8 990	*8 990	*8 660	*8 660	*6 890	6 550	*5 610	4 740	*4 560	3 700
	-13.5 m	kg									*4 670	*4 670				
	Lifting hook related to ground level		10.5 m		12.0 m		13.5 m		15 m		16.5 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	m	
Boom : 10.2 m LR Arm : 7.9 m LR Shoe : 800 mm CWT : 6 900 kg	13.5 m	kg											*1 340	*1 340	12.9	
	12.0 m	kg					*1 880	*1 880					*1 260	*1 260	14.1	
	10.5 m	kg					*2 470	*2 470	*1 340	*1 340			*1 220	*1 220	15.1	
	9.0 m	kg					*2 700	*2 700	*2 070	*2 070			*1 190	*1 190	15.9	
	7.5 m	kg					*2 800	2 720	*2 530	2 160			*1 190	*1 190	16.4	
	6.0 m	kg			*3 060	*3 060	*2 950	2 610	*2 870	2 090	*1 690	1 660	*1 200	*1 200	16.9	
	4.5 m	kg	*3 580	*3 580	*3 320	3 100	*3 130	2 490	*3 000	2 010	*2 090	1 610	*1 220	*1 220	17.2	
	3.0 m	kg	*3 980	3 630	*3 610	2 910	*3 340	2 350	*3 140	1 910	*2 360	1 550	*1 260	*1 260	17.3	
	1.5 m	kg	*4 390	3 360	*3 900	2 710	*3 550	2 210	3 080	1 820	*2 530	1 490	*1 320	*1 320	17.3	
	0 m	kg	*4 770	3 110	*4 180	2 530	3 530	2 090	2 990	1 730	2 550	1 430	*1 400	1 310	17.2	
	-1.5 m	kg	4 910	2 900	4 060	2 380	3 410	1 970	2 910	1 650	*2 370	1 390	*1 500	1 320	17.0	
	-3.0 m	kg	4 750	2 740	3 930	2 260	3 320	1 890	2 850	1 590	*1 810	1 360	*1 640	1 350	16.6	
	-4.5 m	kg	4 640	2 640	3 850	2 190	3 270	1 840	2 820	1 560			*1 820	1 420	16.0	
	-6.0 m	kg	4 590	2 600	3 820	2 150	3 250	1 820	2 820	1 570			*2 070	1 530	15.3	
	-7.5 m	kg	4 590	2 600	3 830	2 160	3 280	1 850					*2 450	1 700	14.4	
	-9.0 m	kg	4 660	2 670	3 900	2 230							*3 030	1 970	13.3	
	-10.5 m	kg	*4 630	2 800									*3 800	2 410	11.9	
	-12.0 m	kg											*3 840	3 220	10.1	
	-13.5 m	kg											*3 640	*3 640	7.50	

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Equipment

STANDARD AND OPTIONAL EQUIPMENT

• = Standard /o = Optional

Engine

Turbocharged, 6 stroke diesel engine with water cooling, direct injection and charged air cooler that meets EU StageV requirements	•
Cooling system by fan clutch	•
New work mode with 10 steps	•
Cyclone pre-cleaner	•
Fuel shut off valve	•
Engine block heater	o
Coolant heater by diesel	o
Reversible fan drive	o
Precleaner, oil bath	o
Air filter, High efficiency	o
Delayed engine Shutdown	o
Automatic engine shutdown	o
Water separator with heater	o
Arctic regeneration	o
Oil sampling port for engine oil	o

Hybrid

Accumulator, 32 L	•
Boom regeneration valves	•
Assist motor	•
Main pump with PTO	•

Electric / Electronic control system

Anti-theft with code lock system	•
Alternator, 120 A	•
Automatic idling system	•
Lock Out / Tag Out function on main battery switch	•
Standard light	•
Basic light package	o
Advanced light package	o
Deluxe light package	o
Arm light	o
LH light	o

Undercarriage and structures

3-point side access	•
Direct filling DEF(AdBlue) / Sight gauge and splash guard	•
Openable 3 piece hood	•
Guardrail, fixed/foldable	o
Inner rail	o
SIPS (Side Impact Protection Steel)	o
HD Side door & hood with screen	o
Without lower structure	o
Lower frame, NLC/High walker	o
Link 600 / 700 / 800 / 900 mm triple grouser shoe	o
Link 600 mm triple grouser shoe, HD	o
Link 600 / 700 mm double grouser shoe	o
Link 700 mm single grouser shoe	o

STANDARD AND OPTIONAL EQUIPMENT

• = Standard /o = Optional

Hydraulic System

EH (Electro-Hydraulic) control system	•
Auto warm up	•
Auto power boost	•
One touch power boost	•
Priority Adjustment	•
Boom down speed control	•
Shock reduction function	•
Joystick, Semi-long / 4 switch / 4 switch & 1 proportional / Simple L8 / L8	o
Hydraulic oil mineral 32 / 46 / 68	o
Longlife hyd oil mineral 32 / 46 / 68	o
Hydraulic oil bio 46	o
Pattern change	o
Boom float function	o
Straight travel pedal	o
Comfort driving control	o
Creep mode	o
Dedicated drain line	o
Variable X3 P-Q control	o
Hose rupture valve for boom	•
Hose rupture valve for arm	•

Cab and interior

Keyless engine start and stop	•
8" HD display	•
ROPS certified cab	•
Tiltable left console	•
Digital hour meter	•
Wireless mobile charger with Kinematic sensor package option	•
Various storage space with cool/heated	•
Cleaning air gun	o
1 piece wind shield cab	o
High visibility cab	o
Cabin large mirror	o
Cabin large mirror, Heated	o
Basic / Premium / Deluxe seat	o
Seat belt, 2 inch 2 point / 3 inch 2 point / 3 inch 3 point	o
Climate control-HEPA filter	o
Radio with MP3/USB/Bluetooth	o
Front rain shield	o
Sun screen	o
Lower wiper	o
Sun shield, roof hatch	o
Foot rest, High mount	o
FOG (Falling Object Guard)	o
FOPS (Falling Object Protection Structure)	o
Safety net	o

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Digging equipment

Boom: 6.2 m monoblock	•
Boom: VA 6.2 m / LR 10.2 m / Straight 7.0 m	o
Arm: 3.05 m	•
Arm: 2.55 m	o
Arm: 2.75 m	o
Arm: 3.7 m	o
Arm: LR 7.9 m	o

Machine controls

Kinematic sensor package	•
Volvo Co-Pilot 2nd display, 12.8" touchable Full HD	•
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	o
Quick Hydraulic Oil Fill connection	o
Jump start connector	o
Auto lubrication system	o
Tool kit	o

Safety and security

Travel alarm, beep / white noise	o
Flashing beacon, LED	o
Green light beacon	o
Rear view camera	•
Side view camera	•
HD VSV (Volvo Smart View)	o
HD VSV with obstacle detection	o
Provision, HD VSV with obstacle detection	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.

V O L V O