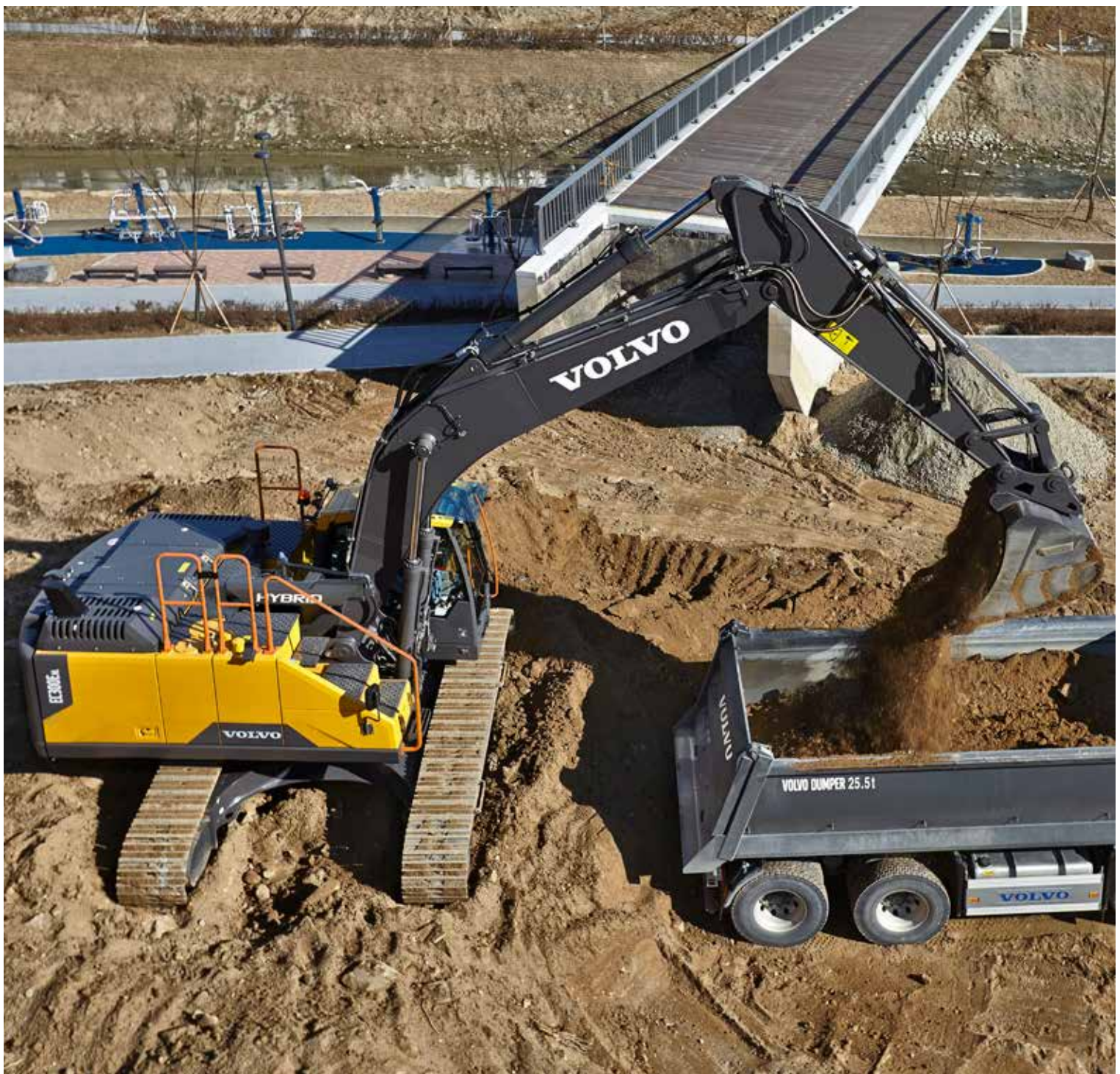


Volvo Construction Equipment  
Building Tomorrow



# EC300E HYBRID

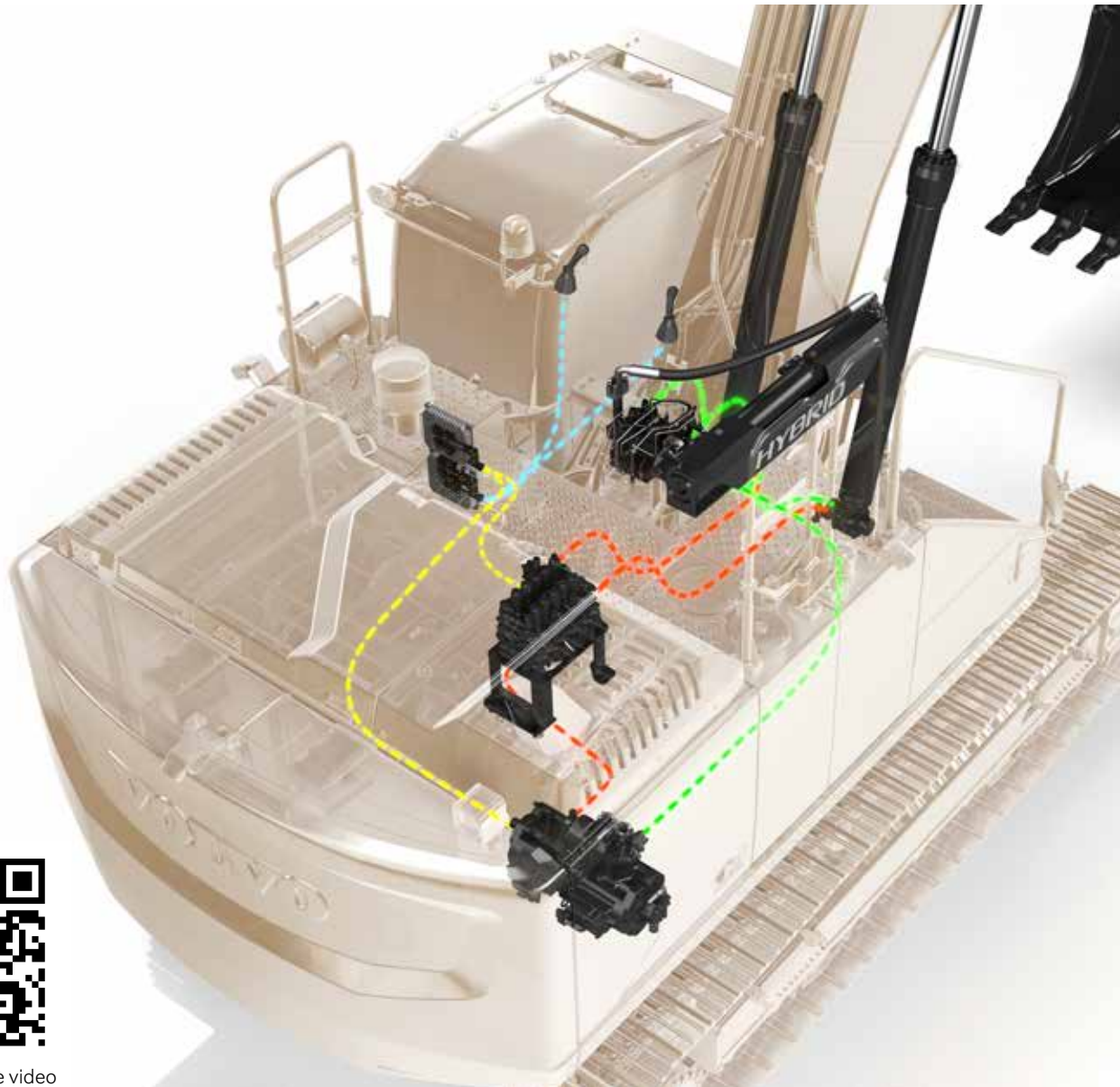
Volvo Excavators



# Simple solution, big savings

Introducing the new EC300E Hybrid. Featuring unique hydraulic hybrid Volvo technology, the excavator utilizes the boom down motion to charge accumulators, with the stored energy used to drive assist motors which power the engine system.

The result is up to 20% increase in fuel efficiency while delivering all the power and performance you would expect from a conventional EC300E.



Scan to watch the video

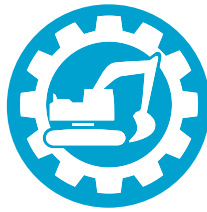
## Simply reliable

The uncomplicated and reliable hybrid solution is easy to maintain and consists of just a handful of add-on components, meaning no disruption or complication to how the high performing EC300E is engineered.



**20%**

**More Fuel Efficiency**



**100%**

**Volvo Engineered**



**17%**

**Lower Fuel Consumption**



**Cleaner and greener**

The EC300E reduces CO<sub>2</sub> emissions by up to 17% making it a more environmentally respectful choice, especially when working in built-up areas.

**The value of efficiency**

When working in dig and dump applications, the EC300E Hybrid is a straightforward solution with big payback. Save fuel, lower emissions and boost the profitability of your operation.

# EC300E 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	D8J
Max power at	r/min	1800
Net, ISO 9249/SAE J1349	kW	179
	hp	243
Gross, ISO 14396/SAE J1995	kW	180
	hp	245
Max torque	Nm	1238
at engine speed	r/min	1350
No. of cylinders		6
Displacement	l	7.8
Bore	mm	110
Stroke	mm	136

## 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 20 litre hydraulic accumulators (5.3 gallon), 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 EC300E, including the ability to work in ECO mode and Hybrid mode simultaneously.

### Accumulator

No. of accumulator		1
Displacement	l	20

## 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	200
Alternator	V/A	28/80

## Undercarriage

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

Track shoes		2 x 50
Link pitch	mm	203
Shoe width, triple grouser	mm	600 / 700 / 800 / 900
Shoe width, triple grouser (HD)	mm	600
Shoe width, double grouser	mm	700
Bottom rollers		2 x 9
Top rollers		2 x 2

## 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 nine different adjustments plus a seat belt for the operator's comfort and safety.

## 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	10.7
Max. slew torque	kNm	110.9

## 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	3.4
Max. travel speed (high)	km/h	5.4
Gradeability	°	35

## Sound Level

Sound pressure level in cab according to ISO 6396

L <sub>pA</sub> (standard)	dB	70
L <sub>pA</sub> (tropical)	dB	71

External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

L <sub>WA</sub> (standard)	dB	104
L <sub>WA</sub> (tropical)	dB	105

## 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 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.

**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.

**Power boost:** All digging and lifting forces are increased.

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

### Main pump, Type 2 x variable displacement axial piston pumps

Maximum flow	l/min	2 x 263
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### Pilot pump, Type Gear pump

Maximum flow	l/min	18
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### Relief value setting pressure

Implement	MPa	33.3/36.3
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Travel circuit	MPa	33.3
----------------	-----	------

Slew circuit	MPa	27.9
--------------	-----	------

Pilot circuit	MPa	3.9
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**Travel:** Variable displacement axial piston motor with mechanical brake

**Slew:** Fixed displacement axial piston motor with mechanical brake

## Hydraulic Cylinders

Mono boom		2
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Bore x Stroke	ø x mm	140 x 1 480
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Arm		1
-----	--	---

Bore x Stroke	ø x mm	150 x 1 745
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Bucket		1
--------	--	---

Bore x Stroke	ø x mm	140 x 1 140
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## Service Refill

Fuel tank	l	470
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DEF/AdBlue® tank	l	53
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Hydraulic system, total	l	400
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Hydraulic tank	l	207
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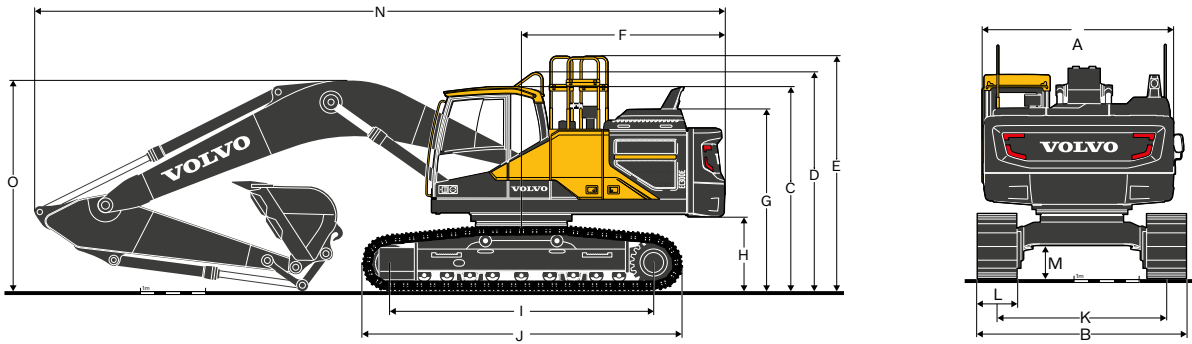
Engine oil	l	32
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Engine coolant	l	41
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Slew reduction unit	l	6.1
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Travel reduction unit	l	2 x 6
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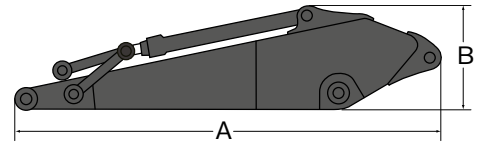
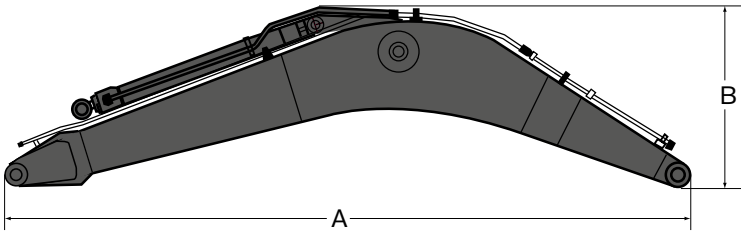
# Specifications



## DIMENSIONS

Description	Unit	EC300EL Hybrid			EC300ENL Hybrid		
Boom	m	6.2 mono			6.2 mono		
Arm	m	2.55	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
B. Overall width	mm	3 190	3 190	3 190	2 990	2 990	2 990
C. Overall height of cab	mm	3 110	3 110	3 110	3 110	3 110	3 110
D. Overall height of handrail	mm	3 325	3 325	3 325	3 325	3 325	3 325
E. Overall height of guardrail (Unfolded)	mm	3 570	3 570	3 570	3 570	3 570	3 570
E. Overall height of guardrail (Folded)	mm	3 175	3 175	3 175	3 175	3 175	3 175
F. Tail swing radius	mm	3 120	3 120	3 120	3 120	3 120	3 120
G. Overall height of engine hood	mm	2 770	2 770	2 770	2 770	2 770	2 770
H. Counterweight clearance *	mm	1 100	1 100	1 100	1 100	1 100	1 100
I. Tumbler length	mm	4 015	4 015	4 015	4 015	4 015	4 015
J. Track length	mm	4 870	4 870	4 870	4 870	4 870	4 870
K. Track gauge	mm	2 590	2 590	2 590	2 390	2 390	2 390
L. Shoe width	mm	600	600	600	600	600	600
M. Min. ground clearance *	mm	480	480	480	480	480	480
N. Overall length	mm	10 610	10 510	10 550	10 610	10 510	10 550
O. Overall height of boom	mm	3 480	3 350	3 580	3 480	3 350	3 580

\* Without shoe grouser



**DIMENSIONS BOOM**

		EC300E Hybrid	
Description	Unit	mono	mono
<b>Boom</b>	<b>m</b>	<b>6.2 GP</b>	<b>6.2 HD</b>
Length	mm	6430	6430
Height	mm	1680	1680
Width	mm	770	770
Weight	kg	2610	2810

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

**DIMENSIONS ARM**

		EC300E Hybrid			
Description	Unit	2.55 HD	3.05 GP	3.05 HD	3.7 GP
<b>Arm</b>	<b>m</b>				
Length	mm	3710	4150	4150	4800
Height	mm	1010	1010	1010	1050
Width	mm	545	545	545	545
Weight	kg	1530	1530	1590	1660

\* Includes cylinder, linkage and pin

# Specifications

## WORKING RANGES

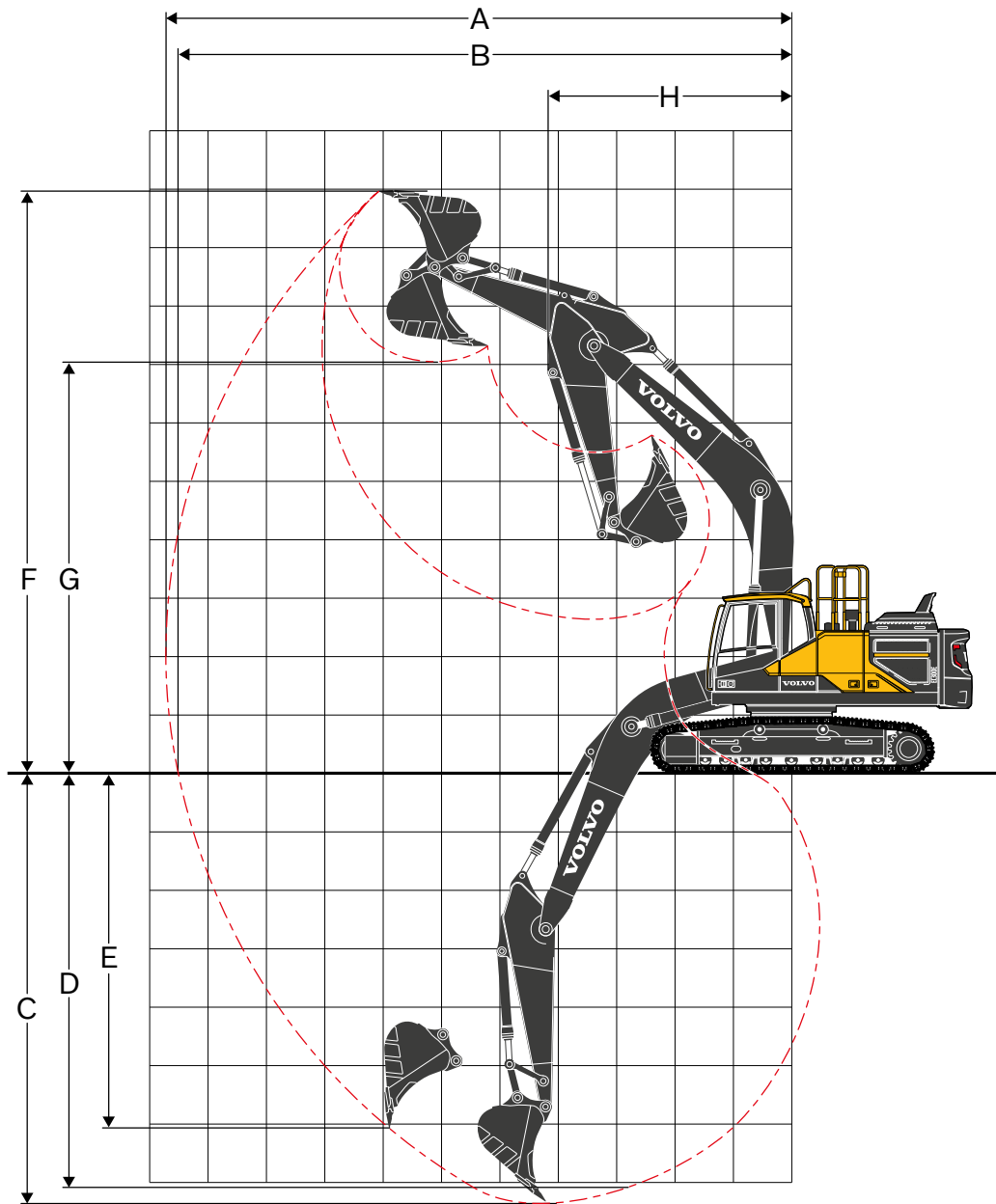
Description	Unit	EC300EL Hybrid and EC300ENL Hybrid		
<b>Boom</b>	<b>m</b>	<b>6.2</b>		
<b>Arm</b>	<b>m</b>	<b>2.55</b>	<b>3.05</b>	<b>3.7</b>
A. Max. digging reach	mm	10 180	10 710	11 310
B. Max. digging reach on ground	mm	9 970	10 520	11 130
C. Max. digging depth	mm	6 840	7 340	7 990
D. Max. digging depth (2.44 m level)	mm	6 600	7 150	7 830
E. Max. vertical wall digging depth	mm	5 320	6 080	6 680
F. Max. cutting height	mm	9 560	9 980	10 260
G. Max. dumping height	mm	6 680	7 040	7 330
H. Min. front swing radius	mm	4 220	4 180	4 240

## DIGGING FORCES WITH DIRECT FIT BUCKET

Bucket radius			mm	1 600	1 600	1 600
Breakout force - bucket	Normal	SAE J1179	kN	168	168	168
	Power boost	SAE J1179	kN	182	182	182
	Normal	ISO 6015	kN	188	188	188
	Power boost	ISO 6015	kN	205	205	205
Tearout force - dipper arm	Normal	SAE J1179	kN	157	132	115
	Power boost	SAE J1179	kN	170	143	125
	Normal	ISO 6015	kN	161	135	118
	Power boost	ISO 6015	kN	176	147	128
Rotation angle, bucket			°	179	179	179



**MACHINE WITH MONO BOOM**



# Specifications

## GROUND PRESSURE

Description	Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm	kg	kPa	mm
<b>EC300E</b>							
		<b>EC300E Hybrid with L undercarriage, 6.2m boom, 3.05m arm, 1 209kg bucket, 5 100kg counterweight</b>			<b>EC300E Hybrid with L undercarriage, 6.2m HD boom, 3.05m HD arm, 1 209kg bucket, 5 100kg counterweight</b>		
<b>Triple grouser</b>	600	29 780	57.5	3 190	30 080	58	3 190
	700	30 340	50.2	3 290	30 640	50.7	3 290
	800	30 720	44.5	3 390	31 020	44.9	3 390
	900	31 090	40	3 490	31 390	40.4	3 490
<b>Triple grouser(HD)</b>	600	29 980	57.8	3 190	30 280	58.4	3 190
<b>Double grouser</b>	700	30 490	50.4	3 290	30 790	50.9	3 290
		<b>EC300E Hybrid with L undercarriage, 6.2m boom, 3.05m arm, 1 209kg bucket, 5 500kg counterweight</b>		<b>EC300E Hybrid with L undercarriage, 6.2m HD boom, 3.05m HD arm, 1 209kg bucket, 5 500kg counterweight</b>			
<b>Triple grouser</b>	600	30 180	58.2	3 190	30 480	58.8	3 190
	700	30 740	50.8	3 290	31 040	51.3	3 290
	800	31 120	45	3 390	31 420	45.5	3 390
	900	31 490	40.5	3 490	31 790	40.9	3 490
<b>Triple grouser(HD)</b>	600	30 380	58.6	3 190	30 680	59.2	3 190
<b>Double grouser</b>	700	30 890	51.1	3 290	31 190	51.6	3 290
		<b>EC300E Hybrid with NL undercarriage, 6.2m boom, 3.05m arm, 1 209kg bucket, 5 100kg counterweight</b>		<b>EC300E Hybrid with NL undercarriage, 6.2m HD boom, 3.05m HD arm, 1 209kg bucket, 5 100kg counterweight</b>			
<b>Triple grouser</b>	600	29 650	57.2	2 990	29 950	57.8	2 990
	700	30 210	50	3 090	30 510	50.5	3 090
	800	30 590	44.3	3 190	30 890	44.7	3 190
	900	30 960	39.8	3 290	31 260	40.2	3 290
<b>Triple grouser(HD)</b>	600	29 850	57.6	2 990	30 150	58.2	2 990
		<b>EC300E Hybrid with NL undercarriage, 6.2m boom, 3.05m arm, 1 209kg bucket, 5 500kg counterweight</b>		<b>EC300E Hybrid with NL undercarriage, 6.2m HD boom, 3.05m HD arm, 1 209kg bucket, 5 500kg counterweight</b>			
<b>Triple grouser</b>	600	30 050	58	2 990	30 350	58.6	2 990
	700	30 610	50.6	3 090	30 910	51.1	3 090
	800	30 990	44.8	3 190	31 290	45.3	3 190
	900	31 360	40.3	3 290	31 660	40.7	3 290
<b>Triple grouser(HD)</b>	600	30 250	58.4	2 990	30 550	58.9	2 990

**BUCKET SELECTION GUIDE**

Bucket type		Capacity	Cutting width	Weight	Teeth	EC300ELC Hybrid		
						6.2m Boom		
		600mm shoe, 5 500kg counterweight						
		m <sup>3</sup>	mm	kg	EA	2.55m	3.05m	3.7m
Direct fit Buckets	General purpose	0.55	600	823	3	D	D	D
		0.66	750	869	3	D	D	D
		0.95	1050	1018	4	D	D	D
		1.32	1350	1209	5	D	D	D
		1.45	1450	1263	5	D	D	C
		1.51	1500	1307	5	D	D	C
		1.76	1700	1448	6	C	B	A
	Heavy duty	0.66	750	1000	3	D	D	D
		0.66	750	992	3	D	D	D
		1.14	1200	1294	5	D	D	D
		1.32	1350	1381	5	D	D	D
		1.51	1500	1476	5	D	D	B
		1.51	1500	1409	5	D	D	B
Bucket type		Capacity	Cutting width	Weight	Teeth	EC300ENL Hybrid		
						6.2m Boom		
		600mm shoe, 5 500kg counterweight						
		m <sup>3</sup>	mm	kg	EA	2.55m	3.05m	3.7m
Direct fit Buckets	General purpose	0.55	600	823	3	D	D	D
		0.66	750	869	3	D	D	D
		0.95	1050	1018	4	D	D	D
		1.32	1350	1209	5	D	D	C
		1.45	1450	1263	5	D	C	B
		1.51	1500	1307	5	D	C	B
		1.76	1700	1448	6	B	B	X
	Heavy duty	0.66	750	1000	3	D	D	D
		0.66	750	992	3	D	D	D
		1.14	1200	1294	5	D	D	D
		1.32	1350	1381	5	D	D	B
		1.51	1500	1476	5	C	B	A
		1.51	1500	1409	5	D	C	B

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.  
 Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application.

- X : Not recommended  
**Maximum material density**  
 A 1200~1300 kg/m<sup>3</sup> Coal, Caliche, Shale  
 B 1400~1600 kg/m<sup>3</sup> Wet earth and clay, Limestone, Sandstone  
 C 1700~1800 kg/m<sup>3</sup> Granite, Wet sand, Well blasted rock  
 D 1900 kg/m<sup>3</sup> ~ Wet mud, Iron ore

# Specifications

## LIFTING CAPACITY EC300EL Hybrid

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			
		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 : 6.2m Arm : 2.55m Shoe : 600mm CWT : 5 100kg	7.5 m	kg							*7660	*7660					*7820	6830	6.5
	6.0 m	kg							*8000	7780	*7800	5350			*7810	5270	7.6
	4.5 m	kg					*11310	*11310	*9090	7430	*8120	5230			7200	4520	8.2
	3.0 m	kg					*14460	10620	*10520	7010	8110	5040			6660	4140	8.5
	1.5 m	kg					*16600	9980	11140	6650	7910	4850			6500	4010	8.5
	0 m	kg					*17180	9780	10900	6450	7770	4730			6700	4110	8.3
	-1.5 m	kg			*12810	*12810	*16750	9790	10840	6400	7750	4710			7360	4490	7.8
	-3.0 m	kg			*20860	20290	*15370	9950	10950	6500					8910	5400	6.9
	-4.5 m	kg			*16600	*16600	*12360	10330							*9950	7820	5.4
Boom : 6.2m Arm : 3.05m Shoe : 600mm CWT : 5 100kg	7.5 m	kg												*6350	5880	7.2	
	6.0 m	kg									*7190	5480			*6080	4720	8.2
	4.5 m	kg							*8500	7590	*7660	5330			*6080	4120	8.7
	3.0 m	kg					*13430	10940	*10000	7150	8200	5120	6140	3830	6100	3800	9.0
	1.5 m	kg					*15980	10190	11260	6760	7970	4910	6040	3740	5970	3690	9.1
	0 m	kg					*17090	9850	10960	6510	7800	4760			6120	3770	8.9
	-1.5 m	kg	*7560	*7560	*11710	*11710	*17060	9780	10850	6410	7730	4700			6630	4070	8.4
	-3.0 m	kg	*13850	*13850	*19420	*19420	*16060	9890	10900	6450	7820	4770			7770	4750	7.5
	-4.5 m	kg			*18860	*18860	*13700	10180	*10000	6690					*9370	6340	6.2
Boom : 6.2m Arm : 3.7m Shoe : 600mm CWT : 5 100kg	7.5 m	kg									*6300	5630			*5010	*5010	8.0
	6.0 m	kg									*6390	5580			*4820	4150	8.8
	4.5 m	kg							*7570	*7570	*6970	5390	6280	3950	*4820	3670	9.4
	3.0 m	kg					*11900	11250	*9140	7260	*7810	5150	6160	3840	*4960	3400	9.6
	1.5 m	kg					*14830	10340	*10700	6800	7980	4910	6020	3710	*5250	3300	9.7
	0 m	kg			*6800	*6800	*16530	9820	10950	6480	7760	4710	5910	3610	5480	3350	9.5
	-1.5 m	kg	*6990	*6990	*11020	*11020	*17030	9640	10750	6310	7640	4600	5870	3580	5860	3570	9.0
	-3.0 m	kg	*11650	*11650	*16650	*16650	*16520	9670	10730	6290	7650	4610			6680	4060	8.3
	-4.5 m	kg	*17420	*17420	*21100	20040	*14850	9880	10890	6430					8460	5130	7.1
-6.0 m	kg			*15550	*15550	*11020	10360							*8920	8150	5.3	
Boom : 6.2m Arm : 2.55m Shoe : 600mm CWT : 5 500kg	7.5 m	kg							*7660	*7660					*7820	7080	6.5
	6.0 m	kg							*8000	*8000	*7800	5550			*7810	5480	7.6
	4.5 m	kg					*11310	*11310	*9090	7700	*8120	5430			7430	4700	8.2
	3.0 m	kg					*14460	11020	*10520	7280	8370	5240			6880	4310	8.5
	1.5 m	kg					*16600	10380	11490	6920	8170	5050			6720	4180	8.5
	0 m	kg					*17180	10180	11260	6720	8030	4930			6930	4290	8.3
	-1.5 m	kg			*12810	*12810	*16750	10190	11200	6670	8010	4920			7610	4690	7.8
	-3.0 m	kg			*20860	*20860	*15370	10350	11310	6770					9210	5630	6.9
	-4.5 m	kg			*16600	*16600	*12360	10730							*9950	8130	5.4
Boom : 6.2m Arm : 3.05m Shoe : 600mm CWT : 5 500kg	7.5 m	kg									*6300	5840			*5010	*5010	8.0
	6.0 m	kg									*6390	5780			*4820	4320	8.8
	4.5 m	kg							*7570	*7570	*6970	5600	*6480	4110	*4820	3820	9.4
	3.0 m	kg					*11900	11650	*9140	7530	*7810	5350	6360	4000	*4960	3560	9.6
	1.5 m	kg					*14830	10740	*10700	7080	8240	5110	6220	3870	*5250	3450	9.7
	0 m	kg			*6800	*6800	*16530	10220	11310	6750	8020	4920	6120	3770	5670	3500	9.5
	-1.5 m	kg	*6990	*6990	*11020	*11020	*17030	10040	11110	6580	7900	4810	6080	3740	6070	3730	9.0
	-3.0 m	kg	*11650	*11650	*16650	*16650	*16520	10070	11090	6560	7910	4810			6910	4240	8.3
	-4.5 m	kg	*17420	*17420	*21100	20820	*14850	10280	*11050	6700					*8740	5340	7.1
-6.0 m	kg			*15550	*15550	*11020	10760							*8920	8470	5.3	

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 EC300ENL Hybrid

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		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 : 6.2m Arm : 2.55m Shoe : 600mm CWT : 5 100kg	7.5 m	kg							*7660	7 270					*7820	6 270	6.5		
	6.0 m	kg							*8000	7 130	*7800	4 890			*7810	4 830	7.6		
	4.5 m	kg					*11 310	10 530	*9 090	6 790	*8 120	4 780			7 170	4 120	8.2		
	3.0 m	kg					*14 460	9 570	*10 520	6 380	8 070	4 590			6 620	3 760	8.5		
	1.5 m	kg					*16 600	8 960	11 080	6 030	7 870	4 400			6 470	3 640	8.5		
	0 m	kg					*17 180	8 760	10 850	5 830	7 730	4 290			6 670	3 730	8.3		
	-1.5 m	kg			*12 810	*12 810	*16 750	8 770	10 780	5 780	7 710	4 270			7 330	4 070	7.8		
	-3.0 m	kg			*20 860	17 770	*15 370	8 930	10 900	5 870					8 870	4 900	6.9		
	-4.5 m	kg			*16 600	*16 600	*12 360	9 300							*9 950	7 080	5.4		
Boom : 6.2m Arm : 3.05m Shoe : 600mm CWT : 5 100kg	7.5 m	kg												*6 350	5 400	7.2			
	6.0 m	kg									*7 190	5 020			*6 080	4 320	8.2		
	4.5 m	kg							*8 500	6 940	*7 660	4 880			*6 080	3 750	8.7		
	3.0 m	kg					*13 430	9 890	*10 000	6 520	8 160	4 670	6 110	3 480	6 070	3 460	9.0		
	1.5 m	kg					*15 980	9 160	11 200	6 130	7 930	4 460	6 010	3 390	5 940	3 350	9.1		
	0 m	kg					*17 090	8 830	10 910	5 880	7 760	4 310			6 090	3 410	8.9		
	-1.5 m	kg	*7 560	*7 560	*11 710	*11 710	*17 060	8 770	10 790	5 790	7 700	4 250			6 600	3 690	8.4		
	-3.0 m	kg	*13 850	*13 850	*19 420	17 560	*16 060	8 870	10 840	5 830	7 780	4 330			7 730	4 300	7.5		
	-4.5 m	kg			*18 860	18 070	*13 700	9 150	*10 000	6 060					*9 370	5 760	6.2		
Boom : 6.2m Arm : 3.7m Shoe : 600mm CWT : 5 100kg	7.5 m	kg									*6 300	5 170			*5 010	4 610	8.0		
	6.0 m	kg									*6 390	5 120			*4 820	3 790	8.8		
	4.5 m	kg							*7 570	7 080	*6 970	4 940	6 250	3 600	*4 820	3 340	9.4		
	3.0 m	kg					*11 900	10 190	*9 140	6 620	*7 810	4 700	6 130	3 490	*4 960	3 090	9.6		
	1.5 m	kg					*14 830	9 300	*10 700	6 170	7 940	4 460	5 990	3 360	*5 250	2 990	9.7		
	0 m	kg					*6 800	*6 800	8 800	10 890	5 850	7 720	4 270	5 880	3 270	5 450	3 030	9.5	
	-1.5 m	kg	*6 990	*6 990	*11 020	*11 020	*17 030	8 620	10 700	5 690	7 600	4 160	5 840	3 230	5 830	3 230	9.0		
	-3.0 m	kg	*11 650	*11 650	*16 650	*16 650	*16 520	8 650	10 680	5 670	7 610	4 160			6 650	3 680	8.3		
	-4.5 m	kg	*17 420	*17 420	*21 100	17 530	*14 850	8 860	10 840	5 810					8 420	4 640	7.1		
-6.0 m	kg			*15 550	*15 550	*11 020	9 320							*8 920	7 380	5.3			
Boom : 6.2m Arm : 2.55m Shoe : 600mm CWT : 5 500kg	7.5 m	kg							*7 660	7 530					*7 820	6 500	6.5		
	6.0 m	kg							*8 000	7 390	*7 800	5 090			*7 810	5 020	7.6		
	4.5 m	kg					*11 310	10 910	*9 090	7 050	*8 120	4 970			7 400	4 300	8.2		
	3.0 m	kg					*14 460	9 950	*10 520	6 630	8 330	4 780			6 840	3 930	8.5		
	1.5 m	kg					*16 600	9 340	11 440	6 290	8 130	4 600			6 690	3 810	8.5		
	0 m	kg					*17 180	9 140	11 200	6 090	7 990	4 480			6 890	3 900	8.3		
	-1.5 m	kg			*12 810	*12 810	*16 750	9 150	11 140	6 030	7 970	4 460			7 570	4 260	7.8		
	-3.0 m	kg			*20 860	18 480	*15 370	9 310	11 260	6 130					9 160	5 120	6.9		
	-4.5 m	kg			*16 600	*16 600	*12 360	9 680							*9 950	7 380	5.4		
Boom : 6.2m Arm : 3.05m Shoe : 600mm CWT : 5 500kg	7.5 m	kg									*6 300	5 370			*5 010	4 790	8.0		
	6.0 m	kg									*6 390	5 310			*4 820	3 950	8.8		
	4.5 m	kg							*7 570	7 340	*6 970	5 130	6 450	3 760	*4 820	3 490	9.4		
	3.0 m	kg					*11 900	10 570	*9 140	6 880	*7 810	4 890	6 330	3 650	*4 960	3 240	9.6		
	1.5 m	kg					*14 830	9 680	*10 700	6 430	8 200	4 650	6 190	3 520	*5 250	3 130	9.7		
	0 m	kg					*6 800	*6 800	*16 530	9 180	11 250	6 110	7 980	4 460	6 080	3 420	5 640	3 180	9.5
	-1.5 m	kg	*6 990	*6 990	*11 020	*11 020	*17 030	9 000	11 060	5 950	7 870	4 360	6 050	3 390	6 040	3 380	9.0		
	-3.0 m	kg	*11 650	*11 650	*16 650	*16 650	*16 520	9 030	11 040	5 930	7 870	4 360			6 880	3 850	8.3		
	-4.5 m	kg	*17 420	*17 420	*21 100	18 240	*14 850	9 230	*11 050	6 070					8 700	4 850	7.1		
-6.0 m	kg			*15 550	*15 550	*11 020	9 700							*8 920	7 680	5.3			

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

Fuel filler pump: 50 l/min, with automatic shutoff

Alternator, 110 A

### Hybrid

Accumulator, 20 L

Boom regeneration valves

Assist motor

Main pump with PTO

### Electric / Electronic control system

Contronics

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

Batteries, 2 x 12 V / 200 Ah

Start motor, 24 V / 5.5 kW

### Frame

Access way with handrail

Tool storage area

Punched metal antislip plates

Full height counterweight:

5 500 kg

### Undercarriage

Undercover (heavyduty)

Hydraulic track adjusters

Greased and sealed track link

Track Guard

### Hydraulic system

Boom float function

Hose rupture valve: boom

Overload warning device

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

## STANDARD EQUIPMENT

### Cab and interior

ROPS (ISO121172) certified cab

Silicon oil and rubber mounts with spring

Travel pedals and hand levers

Adjustable operator seat and joystick control console

Control joysticks with 4 switches each

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

Rear view camera

Master key

### Track shoes

600 mm with triple grousers

### Digging equipment

Boom: 6.2 m monoblock

Arm: 3.05 m

Manual centralized lubrication

## 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

### Electric

Extra work lights(Halogen or LED):

Cab-mounted 3

Boom-mounted 1

Counterweight-mounted 1

Travel alarm

Anti-theft system

Rotating warning beacon

### Frame

Counterweight 5 100 kg

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**OPTIONAL EQUIPMENT**

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**Undercarriage**

Full track guard  
Track shoes  
600/700/800/900 mm with triple grousers  
600 mm HD with triple grousers  
Track shoes 700 mm with double grousers

**Hydraulic system**

Hose rupture valve: arm  
Without Hose rupture valve: boom  
Hydraulic piping:  
Attachment management system  
(up to 18 programmable memories)  
Hammer & shear, 1 and 2 pump flow  
Hammer & shear:  
variable flow and pressure pre-setting  
Additional return filter  
Slope & rotator  
Grapple  
Oil leak (drain) line  
Quick coupler piping  
Volvo hydraulic quick coupler S2  
Volvo hydraulic quick coupler U29  
Hydraulic oil, longlife oil 32  
Hydraulic oil, longlife oil 46  
Hydraulic oil, longlife oil 68

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**OPTIONAL EQUIPMENT**

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**Machine control system**

Dig assist 2D/In-field/Steelwrist

**Cab and interior**

Fabric seat with heater  
Fabric seat with heater and air suspension  
Opening top hatch  
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  
Specific key  
Air compressor

**Digging equipment**

Arm: 2.55 m HD, 3.05 m HD, 3.7 m  
Linkage with lifting eye

**Service**

Tool kit, daily maintenance  
Tool kit, full scale

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**SELECTION OF VOLVO OPTIONAL EQUIPMENT**

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**LED Lights****Side-view camera****Reversible cooling fan****Swing-out FOG (\*for demolition package only)****Demolition package**

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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