

V O L V O



Volvo Excavators 41.8-43.3 t 344 hp

EC300, EC400 STRAIGHT BOOM

Volvo Construction Equipment

EC300, EC400 STRAIGHT BOOM

The EC300 Straight Boom and EC400 Straight Boom crawler excavator is configured to deliver the highest levels of performance and safety in demolition applications, all while retaining the quality and comfort from its standard counterpart.



From E to F-generation: top news

EC400 Straight boom vs EC380E Straight Boom, EC300 Straight Boom vs EC300E Straight Boom

- Up to 14% higher fuel efficiency
- 10% more engine power
- +1 000 hr service intervals on hydraulic oil and return filter
- New state-of-the-art cab environment
- Dig Assist suite of tools enabled: Boundary Limits, On-Board Weighing, In-Field Design
- New features, including Auto Power Boost, boom and arm shock reduction, ability to adjust boom down speed plus set boom/swing and boom/travel priority
- Optimized positioning of water spraying nozzles to capture dust at earliest
- Bigger X1 return line for faster attachment movements

Made for demolition



The Volvo straight boom excavator offers 30% better reach over digging-biased models, ultimate protection against falling debris and a clear view of the jobsite. These, combined with outstanding stability and a durable design, make it the perfect choice for efficient demolition projects.

High visibility, protected cab



Industry renowned Volvo cab comfort combines additional features to protect the operator and secure efficient demolition

- Frame-mounted Falling Object Guards – opening of front guard eases window cleaning
- Roll Over Protection Structure
- 12 mm thick single-piece front window and top window
- Washer and wiper on front and top windows
- Standard LED lights on the cab, platform, counterweight and boom

Reversible cooling fan



Protects vital machine components from damage through overheating in dusty demolition environments

- Reversible functionality enables self-cleaning, reducing maintenance requirements and machine downtime
- Customizable settings: manual or auto modes

Heavy counterweight



Outstanding stability, yet easy to transport

- 1 200 kg heavier counterweight than on standard excavator
- Hydraulically removable to facilitate transportation (not applicable to EC300 Straight Boom)

Dust suppression system



The unique factory-fit system from Volvo captures dust, removing the need for a separate truck for pumping water

- 30 liters per minute water pump
- Four nozzles fitted on the arm create a fine mist which encapsulates the dust
- Selectable Auto/Manual mode
- Can also be used for cleaning the machine, with a high-pressure water gun mounted behind the cab

Specialist work equipment



Fully equipped boom and arm, designed for productivity

- 7.0 meter straight boom: 30% increase in reach compared to standard boom design
- Dedicated arms
- X1 and X3 auxiliary piping, including case drain line to protect the attachment
- Quick fit and oil drain line: fast attachment change
- Water lines for dust suppression system

Heavy duty protection



Protecting your investment

- Boom and bucket cylinders protection
- Heavy-duty side doors with screens and louvers
- Slew ring cover
- Side Impact Protection Structure
- Heavy-Duty or eXtreme-Duty undercover
- Heavy-Duty belly cover
- Full track guard

Volvo EC300, EC400 Straight Boom in detail

Engine

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

Air Filter: 3-stage and 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.

	EC300 SB	EC400 SB
Engine	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.		
	EC300 SB	EC400 SB
Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	170
Alternator	V/A	28
Alternator rating	V - kW	28
Start motor	V - kW	24

Undercarriage and structures

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

	EC300 SB	EC400 SB
Track shoe	2 x 50	2 x 50
Link pitch	mm	203
Shoe width	mm	600 / 700 / 800 / 900
Shoe width, triple grouser (HD)	mm	600
Shoe width, double grouser	mm	600 / 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 anti-rebound valve are standard.

	EC300 SB	EC400 SB
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.

	EC300 SB	EC400 SB
Max. drawbar pull	kN	248
Max. travel speed (low)	km/h	2.2
Max. travel speed (high)	km/h	3.6
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 10 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.

Sound Level

	EC300 SB	EC400 SB
Sound level in cab according to ISO 6396		
L _p A	dB	70 71
External sound level according to ISO 6395		
L _{WA}	dB	104 106

Service Refill

	EC300 SB	EC400 SB
Fuel tank	l	440 600
DEF/AdBlue® tank	l	50 45
Hydraulic system, total	l	385 440
Hydraulic tank	l	215 200
Engine oil	l	30 55
Engine coolant	l	44 60
Slew reduction unit	l	6 6.5
Travel reduction unit	l	2 x 6.0 2 x 6.8

Hydraulic System

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

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.

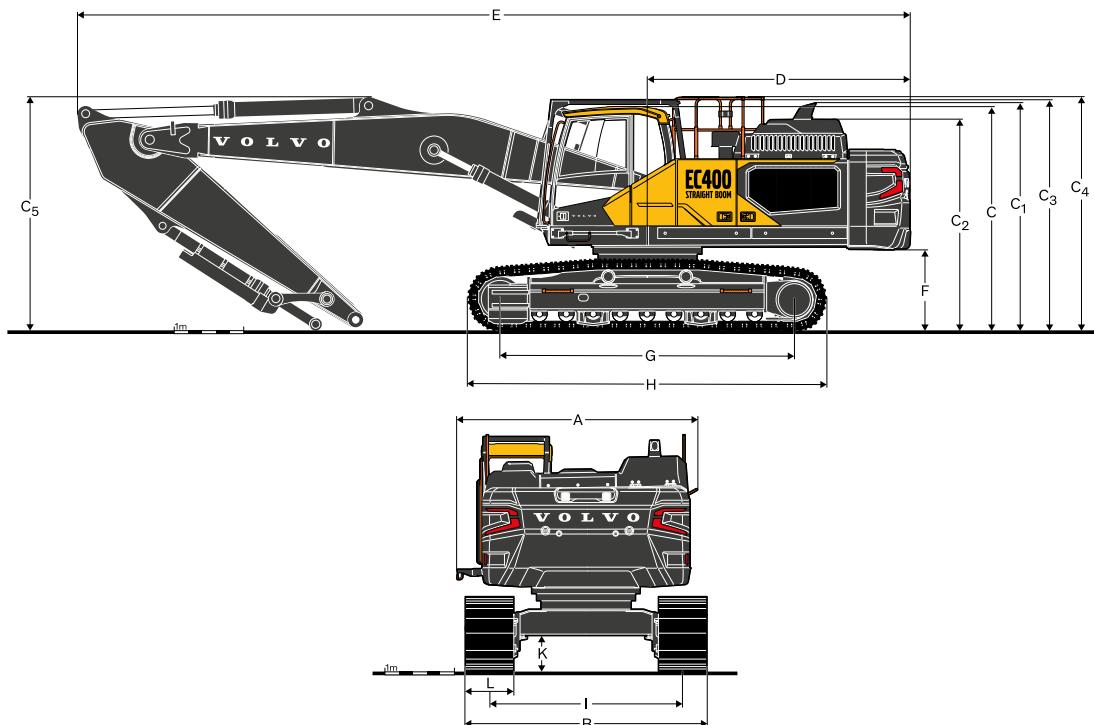
Power boost: All digging and lifting forces are increased.

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

	EC300 SB	EC400 SB
2 x Variable displacement axial piston pumps		
Maximum flow	l/min	2 x 276 2 x 288
Gear pump		
Maximum flow	l/min	1 x 20.3 1 x 26.7
Max. pressure		
Implement	MPa	33.3 / 36.3 32.4 / 35.3
Travel circuit	MPa	36.3 35.3
Slew circuit	MPa	28.9 27.5
Pilot circuit	MPa	3.9 3.9
Hydraulic Cylinders		
	EC300 SB	EC400 SB
Mono boom	2	2
Bore x Stroke	ø x mm	140 x 1 480 160 x 1 530
Arm		1 1
Bore x Stroke	ø x mm	150 x 1 745 175 x 1 700
Bucket		1 1
Bore x Stroke	ø x mm	140 x 1 140 145 x 1 285
ME Bucket		- 1
Bore x Stroke	ø x mm	- 160 x 1 250



Specifications



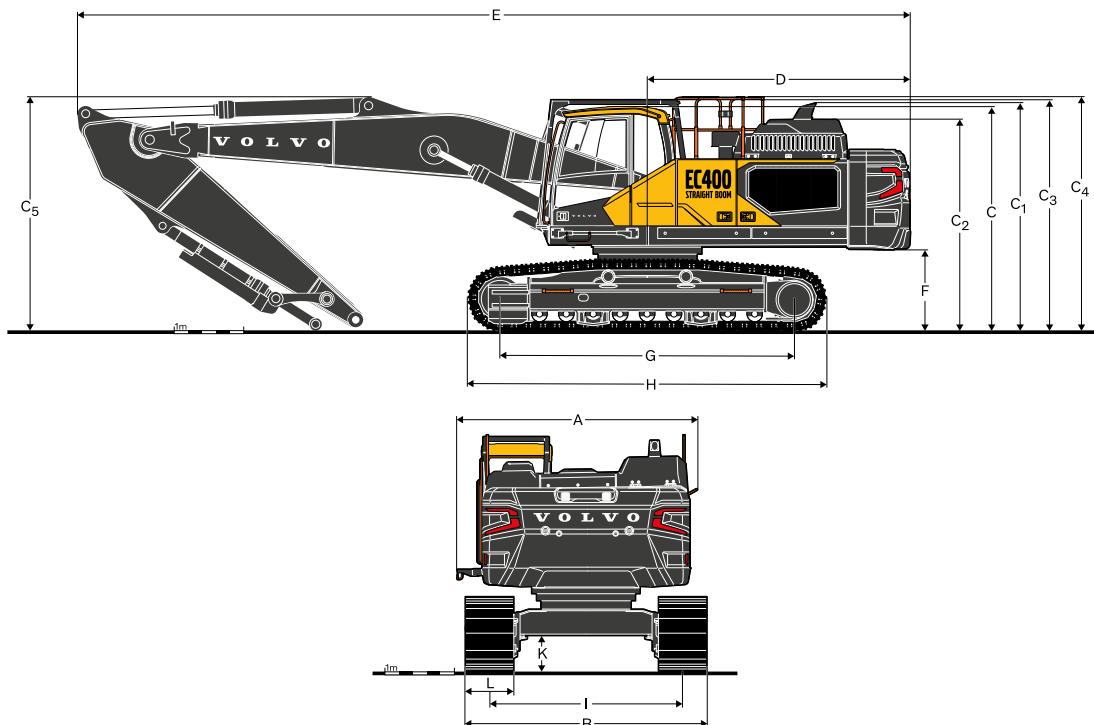
DIMENSIONS

	Unit	EC300F Straight Boom L	EC300F Straight Boom NL
Boom	m	7.0	
Arm	m	3.05	
A. Overall width of upper structure*	mm	2 890	2 890
B. Overall width**	mm	3 190	2 990
C. Overall height of cab***	mm	3 110	3 110
D. Overall height of handrail	mm	3 205	3 205
E. Overall height of guardrail	mm	3 470	3 470
F. Tail swing radius	mm	3 125	3 125
G. Overall height of engine hood	mm	2 920	2 920
H. Counterweight clearance *	mm	1 135	1 135
I. Tumbler length	mm	4 015	4 015
J. Track length	mm	4 865	4 865
K. Track gauge	mm	2 590	2 590
L. Shoe width	mm	600	600
M. Min. ground clearance *	mm	475	475
N. Overall length	mm	11 175	11 175
O. Overall height of boom	mm	3 135	3 135

*With walkway, handrail

** Shoe end to end

*** Without shoe grouser



DIMENSIONS

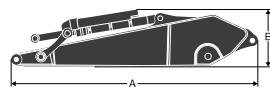
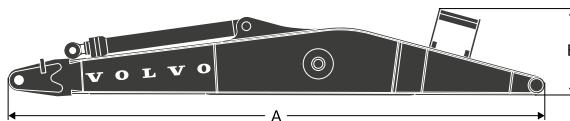
	Unit	EC400F Straight Boom	
Boom	m	7.0	
Arm	m	3.2	3.9
A. Overall width of upper structure*	mm	3 400	3 400
B. Overall width**	mm	3 340	3 340
C. Overall height of cab***	mm	3 240	3 240
D. Overall height of handrail	mm	3 360	3 360
E. Overall height of guardrail	mm	3 360	3 360
F. Tail swing radius	mm	3 600	3 600
G. Overall height of engine hood	mm	3 000	3 000
H. Counterweight clearance *	mm	1 190	1 190
I. Tumbler length	mm	4 240	4 240
J. Track length	mm	5 180	5 180
K. Track gauge	mm	2 740	2 740
L. Shoe width	mm	600	600
M. Min. ground clearance *	mm	480	480
N. Overall length	mm	11 891	11 800
O. Overall height of boom	mm	3 416	3 870

*With walkway, handrail

** Shoe end to end

*** Without shoe grouser

Specifications



DIMENSIONS EC300F Straight Boom

Description	Unit	Boom		Description	Unit	Arm	
		m	7.0 SB			m	3.05 HD
A. Length	mm	7 225		A. Length	mm	4 145	
B. Height	mm	1 060		B. Height	mm	1 010	
Width	mm	765		Width	mm	560	
Weight	kg	3 020		Weight	kg	1 930	

* Includes cylinder, piping and pin, excludes boom cyl. Pin

* Includes cylinder, piping and pin, excludes boom cyl. Pin

DIMENSIONS EC400F Straight Boom

Description	Unit	Boom		Description	Unit	Arm		
		m	7.0			m	3.2	m
A. Length	mm	7 260		A. Length	mm	4 350		5 050
B. Height	mm	1 195		B. Height	mm	1 090		1 110
Width	mm	832		Width	mm	440		440
Weight	kg	3 992		Weight	kg	2 080		2 285

* Includes cylinder, piping and pin, excludes boom cyl. Pin

* Includes cylinder, piping and pin, excludes boom cyl. Pin

Superstructure with boom cylinders, weight EC300F SB

Description	Unit	Superstructure	
Weight	kg		9 750

Lower structure, weight EC300F SB

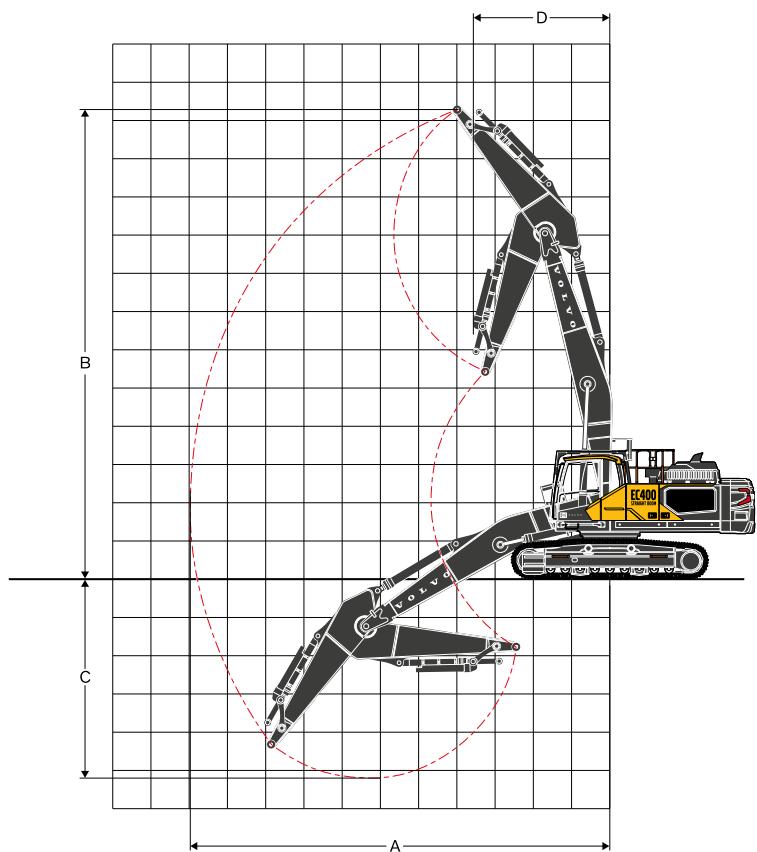
Description	Unit	Long crawler undercarriage	Narrow Long crawler undercarriage
600 mm	kg	10 391	10 259
600 mm (HD)	kg	10 601	10 469
700 mm	kg	10 971	10 839
800 mm	kg	11 331	11 199
900 mm	kg	11 701	11 569
600 mm double	kg	10 761	10 629
600 mm single	kg	11 171	11 039

Superstructure with boom cylinders, weight EC400F SB

Description	Unit	Superstructure	
Weight	kg		11 830

Lower structure, weight EC400F SB

Description	Unit	Long crawler undercarriage	Narrow Long crawler undercarriage
600 mm	kg	13 060	12 660
600 mm (HD)	kg	13 500	13 100
700 mm	kg	13 510	13 110
800 mm	kg	13 950	13 550
900 mm	kg	14 400	14 000
600 mm double	kg	13 330	12 930
600 mm single	kg	13 130	12 730



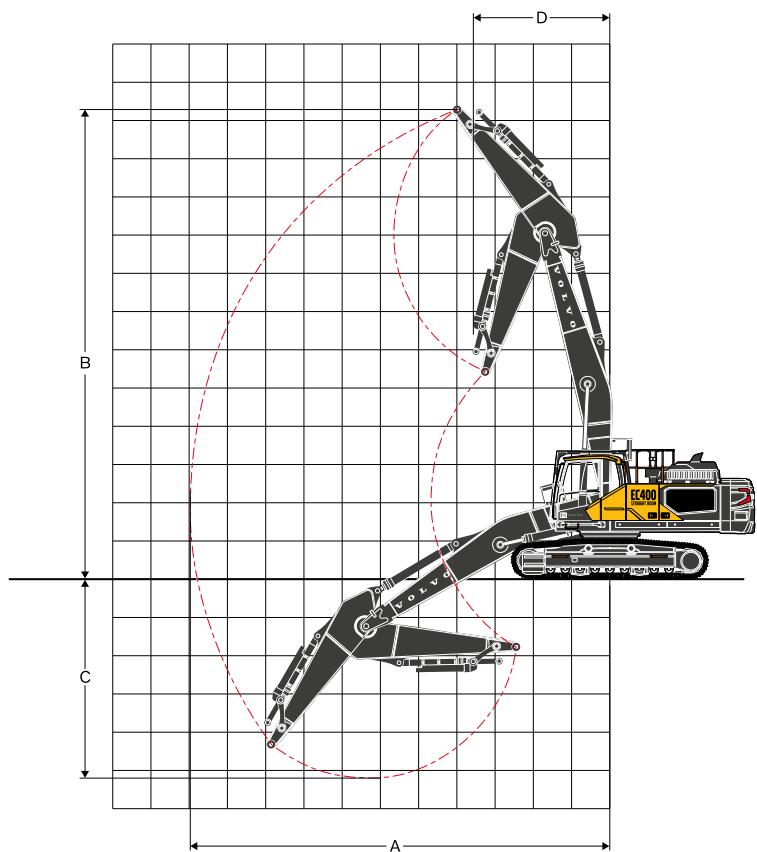
WORKING RANGES WITH DIRECT FIT BUCKET

Description	Unit	EC300F Straight Boom L/NL
Boom	m	7.0
Arm	m	3.05
A. Max. digging reach	mm	11 760
B. Max. digging reach on ground	mm	11 580
C. Max. digging depth	mm	6 150
D. Max.digging depth ($I=2.44$ m level)	mm	5 990
E. Max. vertical wall digging depth	mm	4 920
F. Max. cutting height	mm	13 155
G. Max. dumping height	mm	9 835
H. Min. front swing radius	mm	3 470

DIGGING FORCES WITH DIRECT FIT BUCKET

Breakout force (bucket)	Normal	SAE J1179	kN	165
	Power boost	SAE J1179	kN	179
	Normal	ISO 6015	kN	190
	Power boost	ISO 6015	kN	207
Tearout force (arm)	Normal	SAE J1179	kN	133
	Power boost	SAE J1179	kN	144
	Normal	ISO 6015	kN	136
	Power boost	ISO 6015	kN	148
Rotation angle, bucket			°	179

Specifications



WORKING RANGES WITH DIRECT FIT BUCKET

Description	Unit	EC400F Straight Boom	
Boom	m	7.0	
Arm	m	3.2	3.9
A. Max. digging reach	mm	12 004	12 652
B. Max. digging reach on ground	mm	11 810	12 468
C. Max. digging depth	mm	6 295	6 942
D. Max. digging depth (l=(2.44 m level)	mm	6 146	6 811
E. Max. vertical wall digging depth	mm	5 117	5 534
F. Max. cutting height	mm	13 396	13 956
G. Max. dumping height	mm	9 718	10 283
H. Min. front swing radius	mm	3 403	3 660

DIGGING FORCES WITH DIRECT FIT BUCKET

Breakout force (bucket)	Normal	SAE J1179	kN	198	198
	Power boost	SAE J1179	kN	215	215
	Normal	ISO 6015	kN	222	222
	Power boost	ISO 6015	kN	243	243
Tearout force (arm)	Normal	SAE J1179	kN	162	142
	Power boost	SAE J1179	kN	177	154
	Normal	ISO 6015	kN	166	144
	Power boost	ISO 6015	kN	181	157
Rotation angle, bucket			°	178	178

MACHINE WEIGHTS AND GROUND PRESSURE
EC300F Straight Boom L

Description	Shoe width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm
Triple grouser	600	33 540	64.7	3 190
	600 (HD)	33 750	65.1	3 190
	700	34 120	56.4	3 290
	800	34 480	49.9	3 390
	900	34 850	44.8	3 490
Double grouser	600	33 910	65.4	3 190
Single grouser	600	34 320	56.8	3 290
EC300F Straight Boom L, 7.0 m boom, 3.05 m arm, 1 546 kg bucket, 6 900 kg counterweight				

EC300F Straight Boom NL

Description	Shoe width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm
Triple grouser	600	33 408	64.5	2 990
	600 (HD)	33 618	64.9	2 990
	700	33 988	56.2	3 090
	800	34 348	49.7	3 190
	900	34 718	44.7	3 290
Double grouser	600	33 778	65.2	2 990
Single grouser	600	34 188	56.5	3 090
EC300F Straight Boom NL, 7.0 m boom, 3.05 m arm, 1 546 kg bucket, 6 900 kg counterweight				

MACHINE WEIGHTS AND GROUND PRESSURE
EC400F Straight Boom 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	42 848	76.6	3 340	43 054	77.0	3 340
	600 (HD)	43 289	77.4	3 340	43 495	77.8	3 340
	700	43 290	66.4	3 440	43 496	66.7	3 440
	800	43 732	58.7	3 540	43 938	58.9	3 540
	900	44 174	52.7	3 640	44 380	52.9	3 640
Double grouser	600	43 089	77.1	3 340	43 295	77.4	3 340
Single grouser	600	42 919	76.8	3 340	43 125	77.1	3 340
				EC400F Straight Boom L, 7.0 m GP boom, 3.2 m HD arm, 1 546 kg bucket, 10 250 kg counterweight			
				EC400F Straight Boom L, 7.0 m GP boom, 3.9 m HD arm, 1 546 kg bucket, 10 250 kg counterweight			

EC400F Straight Boom 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	42 433	75.9	2 990	42 639	76.3	2 990
	600 (HD)	43 095	77.1	2 990	43 095	77.1	2 990
	700	43 081	66.0	3 090	43 081	66.0	3 090
	800	43 523	58.4	3 190	43 523	58.4	3 190
	900	43 965	52.4	3 290	43 965	52.4	3 290
Double grouser	600	42 925	76.8	2 990	42 925	76.8	2 990
Single grouser	600	42 725	76.4	2 990	42 725	76.4	2 990
				EC400F Straight Boom NL, 7.0 m GP boom, 3.2 m HD arm, 1 546 kg bucket, 10 250 kg counterweight			
				EC400F Straight Boom NL, 7.0 m GP boom, 3.9 m HD arm, 1 546 kg bucket, 10 250 kg counterweight			

Specifications

LIFTING CAPACITY EC300F Straight Boom 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	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	
Boom : 7.0 m Arm : 3.05 m Shoe : 600 mm CWT : 6 900 kg	10.5 m kg													*8 580 *8 580 5.4
	9.0 m kg							*9 360 *9 360						*6 890 6 660 7.2
	7.5 m kg							*9 100 *9 100	*8 320 6 400					*6 180 5 100 8.5
	6.0 m kg							*9 490 *9 490	*9 970 8 980	*8 490 6 270	7 180 4 570	*5 830 4 300		9.3
	4.5 m kg								*10 840 8 450	*8 860 6 010	7 090 4 490	*5 700 3 860		9.8
	3.0 m kg								*11 630 7 890	9 170 5 730	6 940 4 350	*5 740 3 630		10.1
	1.5 m kg								*11 920 7 460	8 900 5 480	6 800 4 220	5 740 3 570		10.1
	0 m kg								*11 490 7 240	8 720 5 320	6 710 4 140	5 890 3 650		9.9
	-1.5 m kg							*12 110 11 100	*10 360 7 200	*8 250 5 280	*6 270 4 140	*5 360 3 910		9.5
	-3 m kg	*9 210	*9 210	*9 930	*9 930	*8 500	7 300	*6 680	5 350					*4 480 4 450 8.7
Boom : 7.0 m Arm : 3.05 m Shoe : 700 mm CWT : 6 900 kg	-4.5 m kg	*5 060	*5 060	*6 390	*6 390	*5 600	*5 600	*3 490	*3 490					*2 970 *2 970 7.7
	10.5 m kg													*8 570 *8 570 5.4
	9.0 m kg							*9 370 *9 370						*6 890 6 740 7.2
	7.5 m kg							*9 100 *9 100	*8 330 6 480					*6 180 5 170 8.5
	6.0 m kg							*9 490 *9 490	*9 980 9 080	*8 500 6 340	7 270 4 640	*5 830 4 370		9.3
	4.5 m kg								*10 850 8 560	*8 870 6 090	7 180 4 550	*5 700 3 920		9.8
	3.0 m kg								*11 650 8 000	*9 230 5 810	7 030 4 420	*5 730 3 690		10.1
	1.5 m kg								*11 950 7 580	9 020 5 570	6 900 4 290	5 830 3 630		10.1
	0 m kg								*11 520 7 360	8 850 5 410	6 810 4 210	*5 940 3 710		9.9
	-1.5 m kg							*12 110 11 270	*10 390 7 320	*8 270 5 370	*6 280 4 210	*5 370 3 980		9.5
Boom : 7.0 m Arm : 3.05 m Shoe : 800 mm CWT : 6 900 kg	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 420	*6 700	5 440					*4 500 *4 500 8.7
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990 7.7
	10.5 m kg													*8 570 *8 570 5.4
	9.0 m kg							*9 370 *9 370						*6 890 6 840 7.2
	7.5 m kg							*9 100 *9 100	*8 330 6 570					*6 180 5 250 8.5
	6.0 m kg							*9 490 *9 490	*9 980 9 200	*8 500 6 440	7 390 4 710	*5 830 4 440		9.3
	4.5 m kg								*10 850 8 680	*8 870 6 190	7 300 4 630	*5 700 3 990		9.8
	3.0 m kg								*11 650 8 120	*9 230 5 900	7 150 4 490	*5 730 3 760		10.1
	1.5 m kg								*11 950 7 700	9 170 5 660	7 010 4 360	*5 920 3 690		10.1
	0 m kg								*11 520 7 480	9 000 5 500	6 920 4 280	*5 940 3 780		9.9
Boom : 7.0 m Arm : 3.05 m Shoe : 900 mm CWT : 6 900 kg	-1.5 m kg							*12 110 11 450	*10 390 7 440	*8 270 5 460	*6 280 4 290	*5 370 4 050		9.5
	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 540	*6 700	5 530					*4 500 *4 500 8.7
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990 7.7
	10.5 m kg													*8 570 *8 570 5.4
	9.0 m kg							*9 370 *9 370						*6 890 *6 890 7.2
	7.5 m kg							*9 100 *9 100	*8 330 6 630					*6 180 5 300 8.5
	6.0 m kg							*9 490 *9 490	*9 980 9 280	*8 500 6 500	7 470 4 760	*5 830 4 490		9.3
	4.5 m kg								*10 850 8 760	*8 870 6 250	7 380 4 680	*5 700 4 030		9.8
	3.0 m kg								*11 650 8 200	*9 230 5 960	7 230 4 540	*5 730 3 800		10.1
	1.5 m kg								*11 950 7 780	9 270 5 720	7 090 4 410	*5 920 3 730		10.1
Boom : 7.0 m Arm : 3.05 m Shoe : 1000 mm CWT : 6 900 kg	0 m kg							*11 520 7 560	*9 090 5 570	7 000 4 330	*5 940 3 820		9.9	
	-1.5 m kg							*12 110 11 580	*10 390 7 520	*8 270 5 520	*6 280 4 340	*5 370 4 100		9.5
	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 620	*6 700	5 600					*4 500 *4 500 8.7
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990 7.7
	10.5 m kg													*8 570 *8 570 5.4

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 Straight Boom 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	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			
Boom : 7.0 m Arm : 3.05 m Shoe : 600 mm CWT : 6 900 kg	10.5 m kg													*8 570 *8 570 5.4		
	9.0 m kg							*9 370 *9 370						*6 890 6 640 7.2		
	7.5 m kg					*9 100	*9 100	*8 330	6 390					*6 180 5 090 8.5		
	6.0 m kg			*9 490	*9 490	*9 980	8 950	*8 500	6 250	7 160	4 560	*5 830	4 290	9.3		
	4.5 m kg							*10 850	8 430	*8 870	6 000	7 060	4 480	*5 700 3 850	9.8	
	3.0 m kg							*11 650	7 870	9 150	5 720	6 920	4 340	*5 730 3 630	10.1	
	1.5 m kg							*11 950	7 450	8 870	5 470	6 780	4 210	5 730 3 560	10.1	
	0 m kg							*11 520	7 240	8 700	5 320	6 690	4 140	5 870 3 640	9.9	
	-1.5 m kg					*12 110	11 090	*10 390	7 190	*8 270	5 270	*6 280	4 140	*5 370 3 910	9.5	
	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 290	*6 700	5 350					*4 500 4 440	8.7	
Boom : 7.0 m Arm : 3.05 m Shoe : 700 mm CWT : 6 900 kg	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990	7.7	
	10.5 m kg													*8 570 *8 570 5.4		
	9.0 m kg							*9 370 *9 370						*6 890 6 720 7.2		
	7.5 m kg							*9 100	*9 100	*8 330	6 460			*6 180 5 150 8.5		
	6.0 m kg			*9 490	*9 490	*9 980	9 050	*8 500	6 320	7 250	4 620	*5 830	4 350	9.3		
	4.5 m kg							*10 850	8 530	*8 870	6 070	7 150	4 540	*5 700 3 910	9.8	
	3.0 m kg							*11 650	7 970	*9 230	5 790	7 010	4 400	*5 730 3 680	10.1	
	1.5 m kg							*11 950	7 550	8 990	5 540	6 870	4 270	5 800 3 610	10.1	
	0 m kg							*11 520	7 330	8 820	5 390	6 780	4 190	*5 940 3 700	9.9	
	-1.5 m kg					*12 110	11 230	*10 390	7 290	*8 270	5 340	*6 280	4 200	*5 370 3 960	9.5	
Boom : 7.0 m Arm : 3.05 m Shoe : 800 mm CWT : 6 900 kg	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 390	*6 700	5 420					*4 500 *4 500	8.7	
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990	7.7	
	10.5 m kg													*8 570 *8 570 5.4		
	9.0 m kg							*9 370 *9 370						*6 890 6 810 7.2		
	7.5 m kg							*9 100	*9 100	*8 330	6 550			*6 180 5 230 8.5		
	6.0 m kg			*9 490	*9 490	*9 980	9 170	*8 500	6 410	7 360	4 690	*5 830	4 420	9.3		
	4.5 m kg							*10 850	8 650	*8 870	6 160	7 270	4 610	*5 700 3 970	9.8	
	3.0 m kg							*11 650	8 090	*9 230	5 880	7 120	4 470	*5 730 3 740	10.1	
	1.5 m kg							*11 950	7 670	9 130	5 630	6 980	4 350	5 900 3 670	10.1	
	0 m kg							*11 520	7 450	8 960	5 480	6 900	4 270	*5 940 3 760	9.9	
Boom : 7.0 m Arm : 3.05 m Shoe : 900 mm CWT : 6 900 kg	-1.5 m kg					*12 110	11 410	*10 390	7 410	*8 270	5 440	*6 280	4 270	*5 370 4 030	9.5	
	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 510	*6 700	5 510					*4 500 *4 500	8.7	
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990	7.7	
	10.5 m kg													*8 570 *8 570 5.4		
	9.0 m kg							*9 370 *9 370						*6 890 6 880 7.2		
	7.5 m kg							*9 100	*9 100	*8 330	6 610			*6 180 5 280 8.5		
	6.0 m kg			*9 490	*9 490	*9 980	9 250	*8 500	6 480	7 440	4 740	*5 830	4 470	9.3		
	4.5 m kg							*10 850	8 730	*8 870	6 230	7 350	4 660	*5 700 4 020	9.8	
	3.0 m kg							*11 650	8 170	*9 230	5 940	7 200	4 520	*5 730 3 790	10.1	
	1.5 m kg							*11 950	7 750	9 240	5 700	7 060	4 400	*5 920 3 720	10.1	
Boom : 7.0 m Arm : 3.05 m Shoe : 1000 mm CWT : 6 900 kg	0 m kg							*11 520	7 530	9 070	5 540	6 980	4 320	*5 940 3 810	9.9	
	-1.5 m kg							*12 110	11 530	*10 390	7 490	*8 270	5 500	*6 280 4 320	*5 370 4 080	9.5
	-3 m kg	*9 260	*9 260	*9 970	*9 970	*8 520	7 590	*6 700	5 570					*4 500 *4 500	8.7	
	-4.5 m kg	*5 100	*5 100	*6 420	*6 420	*5 620	*5 620	*3 510	*3 510					*2 990 *2 990	7.7	

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 EC400F Straight Boom 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	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 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 : 7.0 m Arm : 3.2 m Shoe : 600 mm CWT : 10 250 kg	10.5 m kg			*14 020 *14 020												*10 890 *10 890 5.7 m
	9.0 m kg					*12 550 *12 550										*9 110 *9 110 7.4 m
	7.5 m kg					*12 690 *12 690 *11 210 9 510										*8 330 7 470 8.6 m
	6.0 m kg	*12 740 *12 740 *14 160 *14 160 *13 490 13 150 *11 490 9 310		*10 160 6 900												*7 990 6 390 9.4 m
	4.5 m kg			*19 480 18 950	*14 660 12 450	*12 000 8 960	*10 270 6 760									*7 890 5 780 9.9 m
	3.0 m kg					*15 720 11 690 *12 490 8 560	*10 390 6 560									*8 020 5 450 10.1 m
	1.5 m kg					*16 130 11 070 *12 670 8 200	*10 320 6 360									*8 360 5 340 10.1 m
	0 m kg			*11 480 *11 480 *15 610 10 710	*12 330 7 950	*9 830 6 210										*8 150 5 440 9.9 m
	-1.5 m kg			*17 310 15 950 *14 150 10 580	*11 260 7 840	*8 610 6 170										*7 460 5 790 9.5 m
	-3 m kg			*13 810 *13 810 *11 670 10 630	*9 180 7 870											*6 360 *6 360 8.7 m
Boom : 7.0 m Arm : 3.2 m Shoe : 700 mm CWT : 10 250 kg	10.5 m kg			*14 020 *14 020												*10 890 *10 890 5.7 m
	9.0 m kg					*12 550 *12 550										*9 110 *9 110 7.4 m
	7.5 m kg					*12 690 *12 690 *11 210 9 580										*8 330 7 530 8.6 m
	6.0 m kg	*12 740 *12 740 *14 160 *14 160 *13 490 13 240 *11 490 9 380		*10 160 6 950												*7 990 6 450 9.4 m
	4.5 m kg			*19 480 19 080 *14 660 12 540	*12 000 9 030	*10 270 6 820										*7 890 5 830 9.9 m
	3.0 m kg					*15 720 11 780 *12 490 8 630	*10 390 6 610									*8 020 5 500 10.1 m
	1.5 m kg					*16 130 11 170 *12 670 8 270	*10 320 6 410									*8 360 5 390 10.1 m
	0 m kg			*11 480 *11 480 *15 610 10 800	*12 330 8 020	*9 830 6 270										*8 150 5 490 9.9 m
	-1.5 m kg			*17 310 16 090 *14 150 10 670	*11 260 7 900	*8 610 6 220										*7 460 5 850 9.5 m
	-3 m kg			*13 810 *13 810 *11 670 10 720	*9 180 7 940											*6 360 *6 360 8.7 m
Boom : 7.0 m Arm : 3.2 m Shoe : 800 mm CWT : 10 250 kg	10.5 m kg			*14 020 *14 020												*10 890 *10 890 5.7 m
	9.0 m kg					*12 550 *12 550										*9 110 *9 110 7.4 m
	7.5 m kg					*12 690 *12 690 *11 210 9 650										*8 330 7 590 8.6 m
	6.0 m kg	*12 740 *12 740 *14 160 *14 160 *13 490 13 330 *11 490 9 450		*10 160 7 010												*7 990 6 500 9.4 m
	4.5 m kg			*19 480 19 220 *14 660 12 630	*12 000 9 100	*10 270 6 870										*7 890 5 880 9.9 m
	3.0 m kg					*15 720 11 870 *12 490 8 700	*10 390 6 670									*8 020 5 550 10.1 m
	1.5 m kg					*16 130 11 260 *12 670 8 340	*10 320 6 470									*8 360 5 440 10.1 m
	0 m kg			*11 480 *11 480 *15 610 10 900	*12 330 8 090	*9 830 6 330										*8 150 5 540 9.9 m
	-1.5 m kg			*17 310 16 220 *14 150 10 760	*11 260 7 970	*8 610 6 280										*7 460 5 900 9.5 m
	-3 m kg			*13 810 *13 810 *11 670 10 810	*9 180 8 010											*6 360 *6 360 8.7 m
Boom : 7.0 m Arm : 3.2 m Shoe : 900 mm CWT : 10 250 kg	10.5 m kg			*14 020 *14 020												*10 890 *10 890 5.7 m
	9.0 m kg					*12 550 *12 550										*9 110 *9 110 7.4 m
	7.5 m kg					*12 690 *12 690 *11 210 9 720										*8 330 7 650 8.6 m
	6.0 m kg	*12 740 *12 740 *14 160 *14 160 *13 490 13 420 *11 490 9 520		*10 160 7 070												*7 990 6 550 9.4 m
	4.5 m kg			*19 480 19 350 *14 660 12 730	*12 000 9 170	*10 270 6 930										*7 890 5 930 9.9 m
	3.0 m kg					*15 720 11 960 *12 490 8 770	*10 390 6 720									*8 020 5 600 10.1 m
	1.5 m kg					*16 130 11 350 *12 670 8 410	*10 320 6 530									*8 360 5 490 10.1 m
	0 m kg			*11 480 *11 480 *15 610 10 990	*12 330 8 160	*9 830 6 380										*8 150 5 590 9.9 m
	-1.5 m kg			*17 310 16 360 *14 150 10 850	*11 260 8 040	*8 610 6 330										*7 460 5 950 9.5 m
	-3 m kg			*13 810 *13 810 *11 670 10 900	*9 180 8 080											*6 360 *6 360 8.7 m

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

	EC300 SB	EC400 SB
Engine		
Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets EU StageV/NA T4f requirements	•	•
Dual cooling fan system including electric driven for CAC	•	•
Cyclone pre-cleaner	•	•
Fuel shut off valve	•	•
Engine block heater	o	o
Coolant heater by diesel	o	o
Reversible fan drive	•	•
High Capacity cooling	o	o
Precleaner, oil bath	o	o
Air filter, High efficiency (EON)	o	o
Delayed engine Shutdown	o	o
Automatic engine shutdown	o	o
Water separator with heater	o	o
Arctic regeneration	o	o
Regeneration control	o	o
Oil sampling for engine oil	o	o
Electric / Electronic control system		
Anti-theft with code lock system	•	•
Alternator, 180 A	•	•
Automatic idling system	•	•
Lock Out / Tag Out function on main battery switch	•	•
Standard light	•	•
Deluxe light package	•	•
Arm light	o	o
LH light	o	o
Undercarriage and structures		
3-point side access	•	•
Direct filling DEF(AdBlue) / Sight gauge and splash guard	•	•
Openable combined muffler hood	•	•
Handrail & Guardrail, Foldable	•	•
Inner rail	o	o
Cabin entrance, foldable	o	o
Cabin entrance, fixed	o	o
Walk way, fixed/foldable	o	o
SIPS (Side Impact Protection System)	•	•
HD Side door & hood with screen	•	•
Without lower structure	o	o
Link 600 / 700 / 800 / 900 mm triple grouser shoe	o	o
Link 600 mm triple grouser shoe, HD	o	o
Link 600 mm double grouser shoe	o	o
Full track guard	o	o
Track tensioner,sand protect	o	o
Removable counterweight	•	•

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

	EC300 SB	EC400 SB
Hydraulic System		
EH(Electro-Hydraulic) control system	•	•
New work mode with 10 steps	•	•
Auto power boost	•	•
One touch power boost	•	•
Priority Adjustment	•	•
Boom down speed control	•	•
Shock reduction function	•	•
Joystick, 4 switch & 1 proportional / Simple L8 / L8	o	o
Hydraulic oil mineral 32 / 46 / 68	o	o
Longlife hyd oil mineral 32 / 46 / 68	o	o
Hydraulic oil bio 46	o	o
Pattern change	o	o
Boom float function	o	o
Straight travel pedal	o	o
Comfort driving control	o	o
Creep mode	o	o
Dust suppression system	•	•
Dedicated drain line	•	•
Variable X3 P-Q control	o	o
Hose rupture valve for boom	•	•
Hose rupture valve for arm	•	•
Cab and interior		
Keyless engine start and stop	•	•
8" HD display	•	•
High visibility cab	•	•
Tilttable left console	•	•
Digital hour meter	•	•
Wireless mobile charger with Kinematic sensor package option	•	•
Various storage space with cool/heated	•	•
Air pressure supply in cabin	o	o
Cabin large mirror with heater	o	o
Cabin large mirror	o	o
Basic / Premium / Deluxe seat	o	o
Seat belt, 2 inch 2 point / 3 inch 2 point / 3 inch 3 point	o	o
Climate control-HEPA filter	o	o
Radio with MP3/USB/Bluetooth	o	o
Lower wiper	•	•
Sun shield, roof hatch	o	o
Foot rest, High mount	o	o
FOG, frame mounted, hinge type for easy cleaning	•	•
Digging equipment		
7.0 m Straight boom	•	•
3.2 m HD	o	o
3.9 m HD	o	o

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

	EC300 SB	EC400 SB
Safety		
Travel alarm, beep	o	o
Travel alarm, white noise	o	o
Flashing beacon, LED	o	o
Green light beacon	o	o
Rear view camera	•	•
Side view camera	•	•
HD VSV(Volvo Smart View)	o	o
HD VSV with obstacle detection	o	o
Provision, HD VSV with obstacle detection	o	o
Service and Maintenance		
Fuel level gauge	•	•
Swing out A/C condenser	•	•
Fuel filler pump	o	o
Fast Fuel Fill preparation	o	o
Quick Hydraulic Oil Fill connection	o	o
Quick Engine Oil Change	o	o
Jump start connector	o	o
Auto lubrication system	o	o
Tool kit	o	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