

Volvo Construction Equipment  
Building Tomorrow



# EC300E STRAIGHT BOOM, EC380E STRAIGHT BOOM

Volvo Excavators for demolition





## **Made for demolition**

Specialist tasks require specialist equipment, which is why Volvo offer a range of tailor-made machinery, specially adapted to meet the unique requirements of the segment you are working in. Two such machines are the EC300E Straight Boom and EC380E Straight Boom – configured to deliver the highest levels of performance and safety in demolition applications, all while retaining the quality and comfort you would expect from their standard counterparts.

## **The perfect choice in demolition applications**

With a significant height advantage over standard models, the custom-built straight boom excavators offer a clear view of the jobsite, and ultimate protection against falling debris. Providing outstanding reach, stability and lifting capabilities, along with a durable design and protected operator environment, the EC300E Straight Boom and EC380E Straight Boom models are the perfect choice when working in demolition applications.

## **More than machines**

As with all Volvo products you can trust in the full support and back-up of your Volvo dealer, combined with a comprehensive portfolio of Volvo aftermarket solutions, for the lifetime of your machine.



# Configured for success

## High visibility, protected cab

Industry renowned Volvo Care Cab comfort combines additional features to enhance safety and visibility

- Frame-mounted Falling Object Guards
- Wide opening of front guard for easy cleaning
- Roll Over Protection Structure, meeting ISO 12117-2:2008 requirements
- P5A grade glazing on single-piece front window and roof window, offering high impact protection which meets EN356 standards
- Washer and wiper on windshield and roof window

## LED lights

See more, do more

Standard LED lights on the cab, platform, counterweight and boom

## Reversible cooling fan

Protects vital machine components from damage through overheating

Reversible functionality enables self-cleaning, reducing maintenance requirements and machine downtime

## Heavy counterweight

Outstanding stability, yet easy to transport

A hydraulically removable counterweight enables easy transportation (EC380E Straight Boom)





### Specialist work equipment

Fully equipped and ready for action

- 7.0 meter straight boom
- Dedicated arms
- X1 and X3 auxiliary piping
- Quick fit and oil drain line
- Water lines for dust suppression system

### Dust suppression system

The unique Volvo system 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. In Auto mode, the water is only sprayed when the attachment is operating
- Can also be used for cleaning the machine, with a high-pressure water gun mounted behind the cab

### Heavy duty protection

Ultimate protection from damage and debris, securing uptime and long-term performance

- Boom cylinder protection
- Bucket cylinder protection
- Heavy-duty side doors with screens and louvers
- Slew ring cover
- Side Impact Protection Structure (SIPS): choice of fixed cab entrance and thicker SIPS or the new foldable cab entrance and narrow SIPS to facilitate transportation (EC380E Straight Boom)
- Heavy-Duty or eXtreme-Duty undercover
- Heavy-Duty belly cover
- Full track guard

# Take a closer look

**Hydraulically removable counterweight (EC380E Straight boom)**



**High visibility cab**



**Dust Suppression System - Selectable Auto/Manual mode**



**LED lighting**



**Heavy duty side doors**



**Reversible cooling fan**



# Volvo EC300E 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, highpressure fuel injectors, turbo charger and intercooler, and electronic engine controls to optimize machine performance.

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.

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

## Undercarriage

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

Track shoes		2 x 50
Link pitch	mm	203
Shoe width, triple grouser	mm	600/600HD/ 700/800/900
Shoe width, double grouser	mm	600 / 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. Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO<sub>2</sub>-eq.

## Swing system

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

Max. slew speed	r/min	11
Max. slew torque	kNm	114.8

## Travel System

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

Max. drawbar pull	kN	248
Max. travel speed (low)	km/h	3.6
Max. travel speed (high)	km/h	5.4
Gradeability	°	35

## Hydraulic system

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

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

Maximum flow	l/min	2 x 276
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### Pilot pump, Type Gear Pump

Maximum flow	l/min	20.3
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### Max. pressure

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

## Hydraulic Motors

**Travel:** Variable displacement axial piston motor with mechanical brake.

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

## Hydraulic Cylinders

Boom		2
Bore x Stroke	ø x mm	140 x 1 480
Arm		1
Bore x Stroke	ø x mm	150 x 1 745
Bucket		1
Bore x Stroke	ø x mm	140 x 1 140

## Service Refill

Fuel tank	l	472
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	6.1
Travel reduction unit	l	2 x 6

## Sound Level

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

# Volvo EC380E Straight Boom in detail

## Engine

The latest generation, Volvo engine Stage V emissions certified 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	D13J
Max power at	r/min	1 700
Net, ISO 9249/SAE J1349	kW	229
	hp	311
Gross, ISO 14396/SAE J1995	kW	230
	hp	313
Max torque	Nm	1 692
at engine speed	r/min	1 275
No. of cylinders		6
Displacement	l	12.8
Bore	mm	131
Stroke	mm	158

## 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	215.9
Shoe width, triple grouser	mm	600/600HD/ 700/800/900
Shoe width, double grouser	mm	600
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 12 different adjustments plus a seat belt for the operator's comfort and safety. Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO<sub>2</sub>-eq.

## 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	10.2
Max. slew torque	kNm	130.5

## 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	276.5
Max. travel speed (low)	km/h	3.4
Max. travel speed (high)	km/h	5.3
Gradeability	°	35

## 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 300
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### Pilot pump, Type Gear pump

Maximum flow	l/min	32.6
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### Max. pressure

Implement	MPa	32.4 / 35.3
Travel circuit	MPa	35.3
Slew circuit	MPa	27.9
Pilot circuit	MPa	3.9

## Hydraulic Motors

**Travel:** Variable displacement axial piston motor with mechanical brake.

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

## Hydraulic Cylinders

Boom		2
Bore x Stroke	ø x mm	160 x 1 530
Arm		1
Bore x Stroke	ø x mm	175 x 1 700
Bucket		1
Bore x Stroke	ø x mm	145 x 1 285

## Service Refill

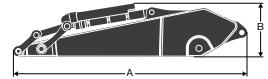
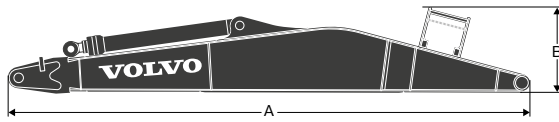
Fuel tank	l	620
DEF/AdBlue® tank	l	62.5
Hydraulic system, total	l	500
Hydraulic tank	l	225
Engine oil	l	42
Engine coolant	l	60
Slew reduction unit	l	6.5
Travel reduction unit	l	2 x 6.8

## Sound Level

Sound pressure level in cab according to ISO 6396		
L <sub>pA</sub>	dB	71
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L <sub>WA</sub>	dB	105



# Specifications



## DIMENSIONS

### EC300E

Description	Unit	Straight	Description	Unit	3.05 HD
<b>Boom</b>	<b>m</b>	<b>7.0</b>	<b>Arm</b>	<b>m</b>	<b>3.05 HD</b>
A	mm	7 225	A	mm	4 145
B	mm	1 059	B	mm	1 010
Width	mm	766	Width	mm	560
Weight	kg	3 178	Weight	kg	1 969

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

\* Includes bucket cylinder, protector, linkage, piping, and pin

### EC380E

Description	Unit	Straight	Description	Unit	3.2 HD	3.9 HD
<b>Boom</b>	<b>m</b>	<b>7.0</b>	<b>Arm</b>	<b>m</b>	<b>3.2 HD</b>	<b>3.9 HD</b>
A	mm	7 260	A	mm	4 360	5 080
B	mm	1 240	B	mm	1 145	1 145
Width	mm	820	Width	mm	560	560
Weight	kg	3 950	Weight	kg	2 490	2 714

\* Includes arm cylinder, piping and pin

\* Includes bucket cylinder, linkage and pin, bucket cylinder protection

## TOOL WEIGHT GUIDELINE FOR STRAIGHT BOOM

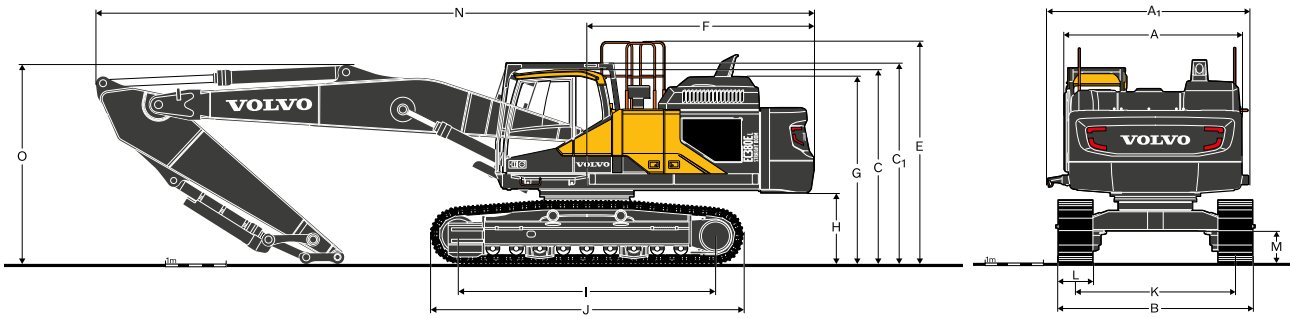
### Allowable tool weight at arm end w/o quick fit

Model		EC300E		EC380E			
		L	NL	L		NL	
<b>Lower frame</b>				<b>7.0</b>		<b>7.0</b>	
<b>Boom</b>	<b>m</b>	<b>7.0</b>		<b>7.0</b>		<b>7.0</b>	
<b>Arm</b>	<b>m</b>	<b>3.05</b>		<b>3.2</b>	<b>3.9</b>	<b>3.2</b>	<b>3.9</b>
<b>CWT</b>	<b>t</b>	<b>6.9</b>		<b>9.0</b>	<b>10.0</b>	<b>9.0</b>	<b>10.0</b>
Breaker	kg	2 400	2 100	3 600	3 500	3 200	3 100
Crusher	kg	3 100	2 800	4 800	4 600	4 200	4 100
Multiprocessor	kg	2 700	2 500	4 200	4 000	3 600	3 500
Shear	kg	2 400	2 100	3 600	3 500	3 200	3 100
Sort & Grab	kg	1 700	1 500	2 600	2 600	2 300	2 200

### Boom mount attachment

Model		EC300E		EC380E			
		L	NL	L		NL	
<b>Lower frame</b>				<b>7.0</b>		<b>7.0</b>	
<b>Boom</b>	<b>m</b>	<b>7.0</b>		<b>7.0</b>		<b>7.0</b>	
<b>CWT</b>	<b>t</b>	<b>6.9</b>		<b>9.0</b>	<b>10.0</b>	<b>9.0</b>	<b>10.0</b>
Shear	kg	4 900	4 600	7 500	7 900	7 000	7 400

# Specifications



## DIMENSIONS

Description	Unit	EC300EL	EC300ENL
<b>Boom</b>	<b>m</b>	<b>7.0</b>	<b>7.0</b>
<b>Arm</b>	<b>m</b>	<b>3.05</b>	<b>3.05</b>
A. Overall width of upper structure	mm	2 890	2 890
A1. Overall width of upper frame - SIPS	mm	3 086	3 086
Overall width of upper frame - Narrow SIPS	mm	2 928	2 928
B. Overall width	mm	3 190	2 990
C. Overall height of cab	mm	3 110	3 110
C1. Overall height of FOG	mm	3 220	3 220
D. Overall height of handrail	mm	3 360	3 360
E. Overall height of guardrail (Unfolded)	mm	3 570	3 570
E'. Overall height of guardrail (Folded)	mm	3 090	3 090
F. Tail swing radius	mm	3 120	3 120
G. Overall height of engine hood	mm	3 010	3 010
H. Counterweight clearance *	mm	1 105	1 105
I. Tumbler length	mm	4 015	4 015
J. Track length	mm	4 865	4 865
K. Track gauge	mm	2 590	2 390
L. Shoe width	mm	600	600
M. Min. ground clearance *	mm	475	475
N. Overall length	mm	11 340	11 340
O. Overall height of boom	mm	2 954	2 954

\* Without shoe grouser

## DIMENSIONS

Description	Unit	EC380EL		EC380ENL	
<b>Boom</b>	<b>m</b>	<b>7.0</b>		<b>7.0</b>	
<b>Arm</b>	<b>m</b>	<b>3.2</b>	<b>3.9</b>	<b>3.2</b>	<b>3.9</b>
A. Overall width of upper structure	mm	2 990	2 990	2 990	2 990
A1. Overall width of upper frame - SIPS with fixed cab entrance	mm	3 437	3 437	3 437	3 437
Overall width of upper frame - Narrow SIPS with foldable cab entrance (unfolded)	mm	3 345	3 345	3 345	3 345
Overall width of upper frame - Narrow SIPS with foldable cab entrance (folded)	mm	3 168	3 168	3 168	3 168
B. Overall width	mm	3 340	3 340	2 990	2 990
C. Overall height of cab	mm	3 220	3 220	3 220	3 220
C1. Overall height of FOG	mm	3 330	3 330	3 330	3 330
D. Overall height of engine hood	mm	3 110	3 110	3 110	3 110
E. Overall height of diffuser	mm	3 468	3 468	3 468	3 468
F. Overall height of guardrail	mm	3 687	3 687	3 687	3 687
G. Tail swing radius	mm	3 760	3 760	3 760	3 760
G'. Tail swing radius, with removed counterweight	mm	3 582	3 582	3 582	3 582
H. Counterweight clearance*	mm	1 150	1 150	1 150	1 150
I. Tumbler length	mm	4 240	4 240	4 240	4 240
J. Track length	mm	5 180	5 180	5 180	5 180
K. Track gauge	mm	2 740	2 740	2 390	2 390
L. Shoe width	mm	600	600	600	600
M. Min. ground clearance*	mm	500	500	500	500
N. Overall length	mm	11 940	11 895	11 940	11 895
O. Overall height of boom	mm	2 950	3 300	2 950	3 300

\* Without shoe grouser

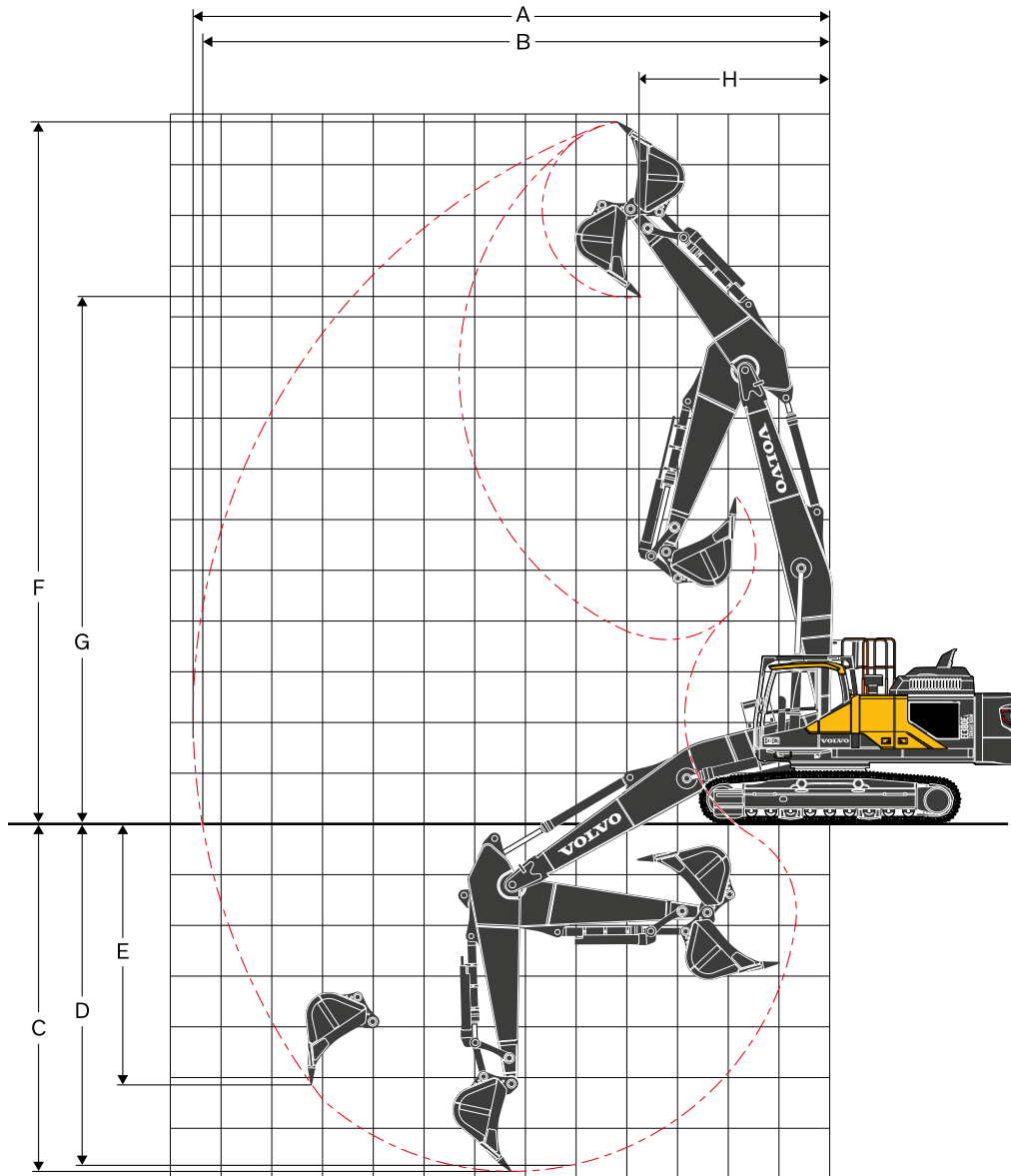
**MACHINE WEIGHTS AND GROUND PRESSURE**

		EC300E Straight Boom					
		EC300E with L undercarriage, 7.0 m boom, 3.05 m HD arm, 1 209 kg bucket, 6 900 kg counterweight			EC300E with NL undercarriage, 7.0 m boom, 3.05 m HD arm, 1 209 kg bucket, 6 900 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	34 327	65.0	3 190	34 195	64.8	2 990
	700	34 910	56.7	3 290	34 778	56.5	3 090
	800	35 286	50.2	3 390	35 155	50.0	3 190
	900	35 658	45.0	3 490	35 526	44.9	3 290
Triple grouser(HD)	600	34 482	65.3	3 190	34 351	65.1	2 990
Double grouser	600	34 643	65.6	3 190	34 512	65.4	2 990
	700	35 045	56.9	3 290	34 914	56.7	3 090

**MACHINE WEIGHTS AND GROUND PRESSURE**

		EC380E Straight Boom			
		EC380E with LC undercarriage, 7.0 m boom, 3.2 m arm, 1 546 kg bucket, 9 000 kg counterweight		EC380E with NLC undercarriage, 7.0 m boom, 3.2 m arm, 1 546 kg bucket, 9 000 kg counterweight	
Description	Shoe width	Operating weight	Ground pressure	Operating weight	Ground pressure
	mm	kg	kPa	kg	kPa
Triple grouser	600	44 262	79.2	44 004	78.7
	700	44 704	68.5	44 446	68.1
	800	45 146	60.6	44 888	60.2
	900	45 588	54.4	45 330	54.1
Triple grouser(HD)	600	44 701	80.0	44 443	79.5
Double grouser	600	44 525	79.6	44 267	79.2
		EC380E with LC undercarriage, 7.0 m boom, 3.9 m arm, 1 546 kg bucket, 10 000 kg counterweight		EC380E with NLC undercarriage, 7.0 m boom, 3.9 m arm, 1 546 kg bucket, 10 000 kg counterweight	
Description	Shoe width	Operating weight	Ground pressure	Operating weight	Ground pressure
	mm	kg	kPa	kg	kPa
Triple grouser	600	45 195	80.8	44 937	80.4
	700	45 637	70.0	45 379	69.6
	800	46 079	61.8	45 821	61.5
	900	46 521	55.5	46 263	55.2
Triple grouser(HD)	600	45 634	81.6	45 376	81.2
Double grouser	600	45 458	81.3	45 200	80.8

# Specifications

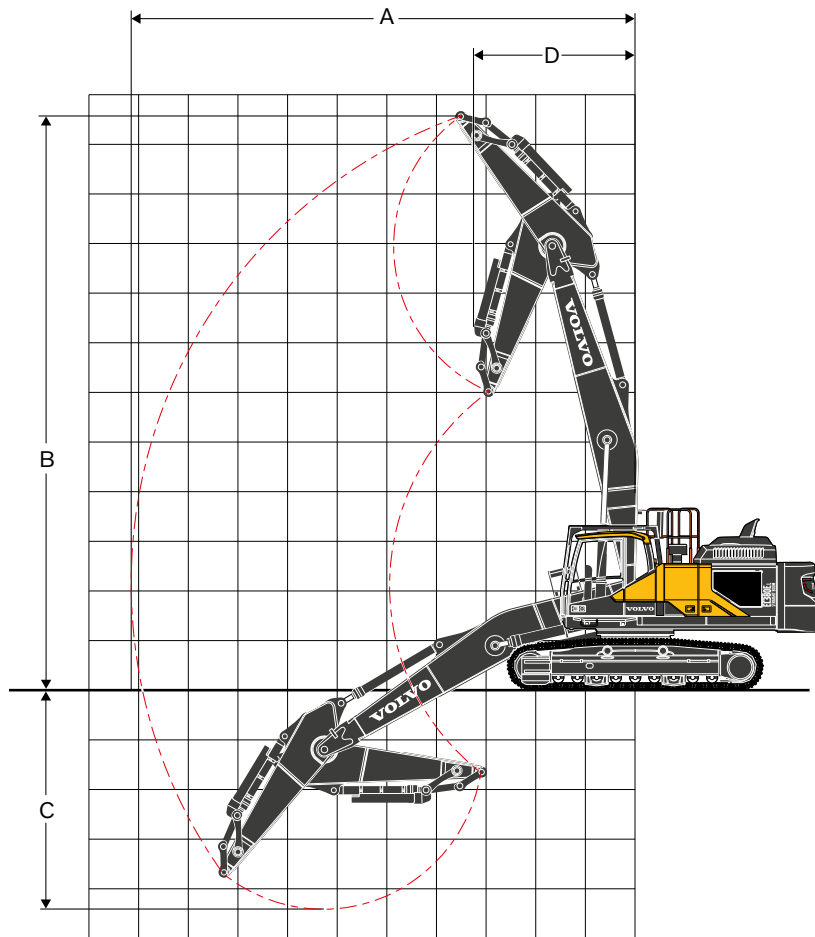


## WORKING RANGES

Description	Unit	EC300EL and EC300ENL	EC380EL and EC380ENL	
<b>Boom</b>	<b>m</b>	<b>7.0 Straight</b>	<b>7.0 Straight</b>	
<b>Arm</b>	<b>m</b>	<b>3.05 HD</b>	<b>3.2 HD</b>	<b>3.9 HD</b>
A. Max. digging reach	mm	11 716	11 890	12 565
B. Max. digging reach on ground	mm	11 536	11 700	12 380
C. Max. digging depth	mm	6 110	6 140	6 840
D. Max. digging depth (2.44 m level)	mm	5 948	5 985	6 705
E. Max. vertical wall digging depth	mm	4 863	4 350	5 120
F. Max. cutting height	mm	13 117	13 300	13 860
G. Max. dumping height	mm	9 881	9 835	10 400
H. Min. front slew radius	mm	3 473	3 495	3 760

## DIGGING FORCES WITH DIRECT FIT BUCKET

Bucket radius			mm	1 624		
Breakout force - bucket	Normal	SAE J1179	kN	165	198.0	198.0
	Power boost	SAE J1179	kN	179	215.0	215.0
	Normal	ISO 6015	kN	190	221.7	221.7
	Power boost	ISO 6015	kN	207	242.7	242.7
Tearout force - dipper arm	Normal	SAE J1179	kN	133	161.9	141.3
	Power boost	SAE J1179	kN	144	176.9	154.3
	Normal	ISO 6015	kN	136	166.0	144.4
	Power boost	ISO 6015	kN	148	181.0	157.4



Description	Unit	EC300E	EC380E	
<b>Boom</b>	<b>m</b>	<b>7.0</b>	<b>7.0</b>	
<b>Arm</b>	<b>m</b>	<b>3.05</b>	<b>3.2</b>	<b>3.9</b>
A. Max. pin reach	mm	10 097	10 150	10 825
B. Max. pin height	mm	11 500	11 580	12 140
C. Max. pin depth	mm	4 491	4 395	5 095
D. Min. front swing radius	mm	3 191	3 240	3 520

# Specifications

## LIFTING CAPACITY EC300EL

Lifting capacity at the arm end without bucket / with bucket cylinder protection.

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		
		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 : 7.0 m Straight Arm : 3.05 m HD Shoe : 600 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	6 800	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 500			*6 180	5 120	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 180	*8 540	6 340	7 210	4 550	*5 830	4 260	9.3
	4.5 m kg					*10 900	8 570	*8 860	6 040	7 100	4 440	*5 700	3 770	9.8
	3.0 m kg					*11 590	7 880	*9 150	5 690	6 910	4 270	*5 730	3 510	10.1
	1.5 m kg					*11 770	7 330	8 850	5 370	6 720	4 090	5 620	3 400	10.1
	0 m kg					*11 250	7 000	8 590	5 140	6 570	3 960	*5 710	3 450	9.9
	-1.5 m kg			*12 000	10 560	*10 040	6 870	*8 000	5 030	*6 030	3 910	*5 100	3 670	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	6 900	*6 380	5 040			*4 180	4 160	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 700 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	6 900	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 600			*6 180	5 210	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 310	*8 540	6 440	7 340	4 630	*5 830	4 340	9.3
	4.5 m kg					*10 900	8 700	*8 860	6 140	7 230	4 520	*5 700	3 850	9.8
	3.0 m kg					*11 590	8 020	*9 150	5 790	7 040	4 350	*5 730	3 580	10.1
	1.5 m kg					*11 770	7 460	9 020	5 470	6 850	4 170	5 730	3 470	10.1
	0 m kg					*11 250	7 130	8 760	5 240	6 700	4 040	*5 710	3 520	9.9
	-1.5 m kg			*12 000	10 750	*10 040	7 000	*8 000	5 130	*6 030	3 990	*5 100	3 750	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 030	*6 380	5 140			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 800 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	*6 910	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 660			*6 180	5 270	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 400	*8 540	6 510	7 420	4 680	*5 830	4 390	9.3
	4.5 m kg					*10 900	8 790	*8 860	6 210	7 310	4 580	*5 700	3 890	9.8
	3.0 m kg					*11 590	8 100	*9 150	5 850	7 120	4 400	*5 730	3 620	10.1
	1.5 m kg					*11 770	7 550	9 120	5 530	6 930	4 220	5 810	3 520	10.1
	0 m kg					*11 250	7 220	8 870	5 300	6 790	4 090	*5 710	3 570	9.9
	-1.5 m kg			*12 000	10 880	*10 040	7 090	*8 000	5 190	*6 030	4 040	*5 100	3 800	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 120	*6 380	5 210			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 900 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	*6 910	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 730			*6 180	5 320	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 490	*8 540	6 570	*7 480	4 730	*5 830	4 440	9.3
	4.5 m kg					*10 900	8 870	*8 860	6 270	7 400	4 630	*5 700	3 940	9.8
	3.0 m kg					*11 590	8 190	*9 150	5 920	7 210	4 450	*5 730	3 670	10.1
	1.5 m kg					*11 770	7 630	*9 210	5 590	7 010	4 270	5 880	3 560	10.1
	0 m kg					*11 250	7 300	*8 870	5 370	6 870	4 140	*5 710	3 610	9.9
	-1.5 m kg			*12 000	11 010	*10 040	7 170	*8 000	5 250	*6 030	4 090	*5 100	3 840	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 200	*6 380	5 270			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	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.

## LIFTING CAPACITY EC300ENL

Lifting capacity at the arm end without bucket / with bucket cylinder protection.

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		
		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 : 7.0 m Straight Arm : 3.05 m HD Shoe : 600 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	6 770	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 470			*6 180	5 100	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 150	*8 540	6 320	7 180	4 530	*5 830	4 240	9.3
	4.5 m kg					*10 900	8 540	*8 860	6 020	7 070	4 430	*5 700	3 760	9.8
	3.0 m kg					*11 590	7 850	*9 150	5 670	6 880	4 250	5 720	3 490	10.1
	1.5 m kg					*11 770	7 300	8 810	5 340	6 690	4 070	5 590	3 390	10.1
	0 m kg					*11 250	6 970	8 560	5 110	6 540	3 940	5 700	3 430	9.9
	-1.5 m kg			*12 000	10 510	*10 040	6 840	*8 000	5 000	*6 030	3 890	*5 100	3 650	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	6 870	*6 380	5 020			*4 180	4 140	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 700 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	6 880	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 570			*6 180	5 190	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 290	*8 540	6 420	7 310	4 610	*5 830	4 320	9.3
	4.5 m kg					*10 900	8 670	*8 860	6 120	7 200	4 510	*5 700	3 830	9.8
	3.0 m kg					*11 590	7 990	*9 150	5 770	7 010	4 330	*5 730	3 560	10.1
	1.5 m kg					*11 770	7 430	8 980	5 440	6 820	4 150	5 710	3 460	10.1
	0 m kg					*11 250	7 100	8 720	5 210	6 670	4 020	*5 710	3 500	9.9
	-1.5 m kg			*12 000	10 710	*10 040	6 970	*8 000	5 100	*6 030	3 970	*5 100	3 730	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 000	*6 380	5 120			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 800 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	*6 910	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 640			*6 180	5 250	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 370	*8 540	6 490	7 390	4 660	*5 830	4 370	9.3
	4.5 m kg					*10 900	8 760	*8 860	6 190	7 280	4 560	*5 700	3 880	9.8
	3.0 m kg					*11 590	8 070	*9 150	5 830	7 090	4 380	*5 730	3 610	10.1
	1.5 m kg					*11 770	7 520	9 080	5 510	6 900	4 210	5 780	3 500	10.1
	0 m kg					*11 250	7 190	8 830	5 280	6 760	4 070	*5 710	3 550	9.9
	-1.5 m kg			*12 000	10 840	*10 040	7 060	*8 000	5 170	*6 030	4 030	*5 100	3 780	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 090	*6 380	5 190			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	7.7	
Boom : 7.0 m Straight Arm : 3.05 m HD Shoe : 900 mm CWT : 6 900 kg	10.5 m kg											*8 640	*8 640	5.3
	9.0 m kg					*9 400	*9 400					*6 910	*6 910	7.2
	7.5 m kg					*9 070	*9 070	*8 390	6 700			*6 180	5 300	8.4
	6.0 m kg			*9 370	*9 370	*9 990	9 460	*8 540	6 550	*7 480	4 710	*5 830	4 420	9.3
	4.5 m kg					*10 900	8 840	*8 860	6 250	7 370	4 610	*5 700	3 920	9.8
	3.0 m kg					*11 590	8 160	*9 150	5 890	7 180	4 430	*5 730	3 650	10.1
	1.5 m kg					*11 770	7 600	9 190	5 570	6 980	4 260	5 850	3 550	10.1
	0 m kg					*11 250	7 270	*8 870	5 340	6 840	4 120	*5 710	3 600	9.9
	-1.5 m kg			*12 000	10 960	*10 040	7 140	*8 000	5 230	*6 030	4 080	*5 100	3 830	9.5
	-3.0 m kg	*8 280	*8 280	*9 390	*9 390	*8 120	7 170	*6 380	5 250			*4 180	*4 180	8.8
-4.5 m kg	*4 100	*4 100	*5 800	*5 800	*5 170	*5 170	*3 170	*3 170			*2 610	*2 610	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.







# Equipment

STANDARD EQUIPMENT			
	EC300E	EC380E	
<b>Engine</b>			
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 pre-cleaner	•	•	
Electric engine shut-off	•	•	
Fuel filter and water separator	•	•	
Fuel filler pump: 50 l/min, with automatic shut-off	•	•	
Alternator, 80 A	•	•	
<b>Electric / Electronic control system</b>			
Contronics	•	•	
Advanced mode control system	•	•	
Self-diagnostic system	•	•	
Machine status indication	•	•	
Engine speed sensing power control	•	•	
Automatic idling system	•	•	
One-touch power boost	•	•	
Safety stop/start function	•	•	
Adjustable LCD color monitor	•	•	
Master electrical disconnect switch	•	•	
Engine restart prevention circuit	•	•	
LED lights:	•	•	
Frame-mounted 2	•	•	
Boom-mounted 2	•	–	
Boom-mounted 4	–	•	
Cab-mounted 2	•	•	
On counterweight	•	•	
Batteries, 2 x 12 V / 170 Ah	•	–	
Batteries, 2 x 12 V / 200 Ah	–	•	
Start motor, 24 V / 5.5 kW	•	–	
Start motor, 24 V / 7 kW	–	•	
<b>Frame</b>			
Access way with handrail	•	•	
Tool storage area	•	•	
Punched metal anti-slip plates	•	•	
<b>Undercarriage</b>			
Undercover (heavy-duty)	•	•	
Hydraulic track adjusters	•	•	
Greased and sealed track link	•	•	
Track Guard	•	•	

STANDARD EQUIPMENT			
	EC300E	EC380E	
<b>Hydraulic system</b>			
Hose rupture valve: boom	•	•	
Overload warning device	•	•	
Automatic sensing hydraulic system	•	•	
2-pump flow bucket circuit	–	•	
Summation system	•	•	
Boom priority	•	•	
Arm priority	•	•	
Swing priority	•	•	
ECO mode fuel saving technology	•	–	
Boom, arm and bucket regeneration valves	•	•	
Swing anti-rebound valves	•	•	
Boom and arm holding valves	•	•	
Multi-stage filtering system	•	•	
Cylinder cushioning	•	•	
Cylinder contamination seals	•	•	
Auxiliary hydraulic valve	•	•	
Automatic two-speed travel motors	•	•	
Hydraulic oil, ISO VG 46	•	•	
<b>Cab and interior</b>			
High visibility cabin	•	•	
ROPS (ISO12117-2) certified cab	•	•	
Falling object guard (FOG)	•	•	
Silicon oil and rubber mounts with spring	•	•	
Travel pedals and hand levers	•	•	
Adjustable operator seat and joystick control console	•	•	
Control joysticks with 3 switches + 1 proportional	•	•	
Heater & air-conditioner, automatic	•	•	
Flexible antenna	•	•	
AM/FM stereo with MP3, USB and bluetooth input	•	•	
Hydraulic safety lock lever	•	•	
Cab, all-weather sound suppressed, includes:	•	•	
Cup holders	•	•	
Door locks	•	•	
Tinted glass	•	•	
Floor mat	•	•	
Horn	•	•	
Large storage area	•	•	
Pull-up type front window	•	•	
Removable lower windshield	•	•	
Seat belt	•	•	
Safety glass	•	•	
Sun screens, front, roof, rear	•	•	
Rain shield	•	•	
Washer and wiper on windshield and roof window	•	•	
Rear view camera	•	•	
Master key	•	•	
<b>Track shoes</b>			
600 mm with triple grousers	•	•	
<b>Digging equipment</b>			
7.0 m straight boom	•	•	
Arm: 3.2 m Heavy-Duty	–	•	
Arm: 3.05 m Heavy-Duty	•	–	
Manual centralized lubrication	•	•	

OPTIONAL EQUIPMENT		
	EC300E	EC380E
<b>Engine</b>		
Block heater: 120 V, 240 V	•	•
Oil bath pre-cleaner	•	•
Diesel coolant heater, 10 kW	•	•
Water separator with heater	•	•
Auto engine shutdown	•	•
<b>Electric</b>		
Travel alarm	•	•
Anti-theft system	•	•
Rotating warning beacon	•	•
<b>Undercarriage</b>		
Full track guard	•	•
<b>Hydraulic system</b>		
Hose rupture valve: arm	•	•
Boom float function with HRV	•	•
Boom float function without HRV	•	•
Hydraulic piping:	•	•
Work tool management system (up to 20 programmable memories)	–	•
Attachment management system (up to 32 programmable memories)	•	–
Hammer & shear	•	•
1 and 2 pump flow	•	•
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 S3	–	•
Volvo hydraulic quick coupler VQC-HU	–	•
Volvo hydraulic quick coupler DR38	–	•
Volvo hydraulic quick coupler U29	•	–
Hydraulic oil, ISO VG 32	–	•
Hydraulic oil, ISO VG 46	–	•
Hydraulic oil, ISO VG 68	–	•
Hydraulic oil, biodegradable 46	•	•
Hydraulic oil, longlife oil 32	•	•
Hydraulic oil, longlife oil 46	•	•
Hydraulic oil, longlife oil 68	•	•
<b>Counterweight</b>		
9 000 kg (3.2 m arm), 10 000 kg (3.9 m arm)	–	•
6 900 kg	•	–

OPTIONAL EQUIPMENT		
	EC300E	EC380E
<b>Cab and interior</b>		
Fabric seat with heater	•	•
Fabric seat with heater and air suspension	•	•
Deluxe seat	•	•
Pilot control pattern change	•	•
Falling object guard, FOG (fixed type or hinge type)	•	•
Frame-mounted	•	•
Side view camera	•	•
Smoker kit (ashtray and lighter)	•	•
Specific key	•	•
<b>Track shoes</b>		
Track shoes 600/700/800/900 mm with triple grousers	•	•
Track shoes 600 mm HD with triple grousers and HD links	–	•
Track shoes 600 mm HD with triple grousers	•	–
Track shoes 600 mm with double grousers	•	•
Track shoes 700 mm with double grousers	•	–
<b>Digging equipment</b>		
Arm: 3.9 m Heavy-Duty	–	•
Linkage with lifting eye	•	•
<b>Service</b>		
Tool kit, daily maintenance	•	•
Tool kit, full scale	•	•
Automatic lubrication system	–	•
Air compressor	•	•

**VOLVO**

**Volvo Construction Equipment**

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