VOLVO

EC210D

Volvo Excavators 20.5 - 23.8 t 167 hp (Metric)

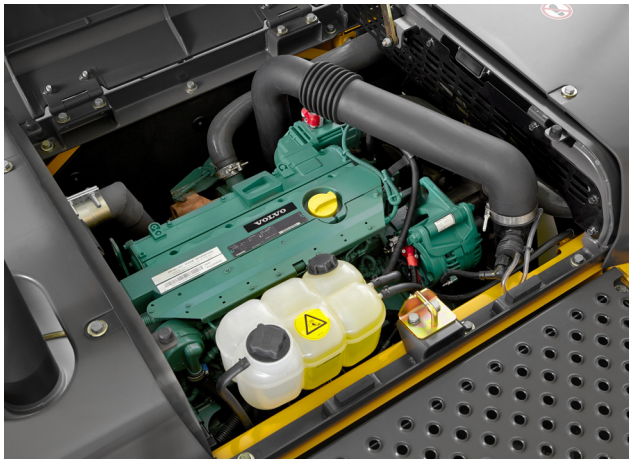
Volvo Construction Equipment. Building Tomorrow

The power to perform

Get the most out of your excavator in any application. The EC210D is equipped with a range of features to ensure a superior performance, shift after shift. Designed with Volvo's extensive experience and expertise, this robust machine delivers ultimate productivity and efficient operation in a wide variety of tasks.

Powerful Volvo engine

Experience optimum power with the EC210D's robust Volvo engine. Working together with the machine's proven hydraulics, this engine delivers high torque at low rpm for the ultimate combination of performance and improved fuel efficiency.



Enhanced operator performance

Operate in comfort for a more productive work shift. The EC210D is equipped with a spacious and safe operator environment offering enhanced all-around visibility, an adjustable seat and ergonomic controls. The improved cab interior features a new I-ECU monitor that displays a range of information for efficient operation.

Excellent controllability

The EC210D features increased hydraulic flow for responsive, accurate control in grading and combined operations. Benefit from smoother and easier movement when traveling and lifting simultaneously as well as better grading quality from the harmonized boom and arm movement.

Efficient work mode

For fast cycle times and optimum fuel consumption, the EC210D is equipped with the new G4 work mode. Operators can choose the best mode to suit the task at hand, selecting from I (Idle), F (Fine), G (General), H (Heavy) and P (Power max) mode. Choose the correct mode according to your working conditions for added versatility and increased productivity.

Efficiency that lasts

The Volvo EC210D is a versatile machine that ensures optimum profitability. This excavator is designed to lower fuel consumption and reduce operating costs, featuring best-in-class fuel efficiency and Volvo's intelligent ECO mode. Excellent service access and a durable design guarantee a long machine life and allow you to get the most out of your machine.

ECO mode

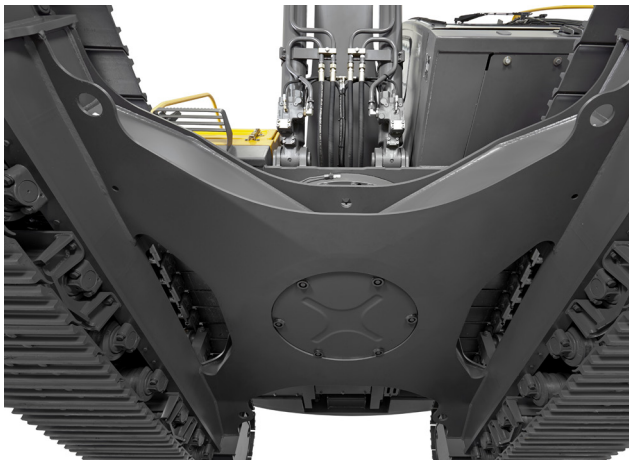
Work efficiently and profitably with Volvo's intelligent ECO mode. This feature contributes to the machine's total improved fuel efficiency – without any loss of performance. The design optimizes flow and pressure while maintaining digging power and swing torque.

Easy to service

The EC210D is built to ensure servicing is safe, quick and easy, featuring anti-slip plates, grouped filters, ground-level service access and centralized lubrication points. Long service intervals enhance machine availability and increase uptime for maximum productivity.

Superior durability

Benefit from a robust performance, shift after shift. Built with durable components for outstanding results in all applications, the EC210D is designed to secure lasting machine value and an excellent return on investment.

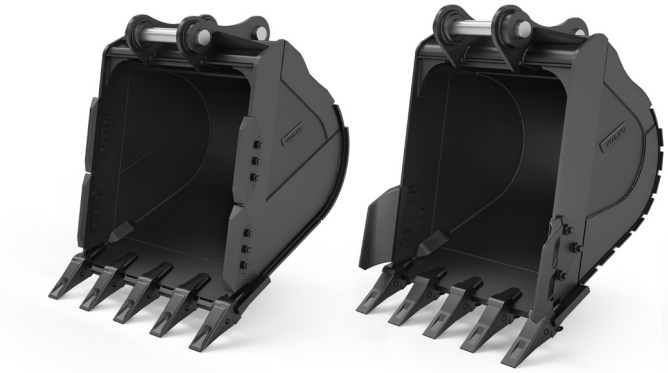


Volvo versatility

Make sure you are ready to tackle any job. Volvo CE offers a comprehensive range of attachments that let you handle a wide variety of tasks. The EC210D can be fitted with a selection of buckets and breakers that work in harmony with the machine to ensure optimal performance and profitability in any application.

Quality Volvo buckets

Volvo offers a range of high quality buckets designed to perform efficiently in a variety of materials. Featuring exceptional design and built-in durability, these buckets are equipped with Volvo teeth to handle the toughest applications.



Powerful breakers

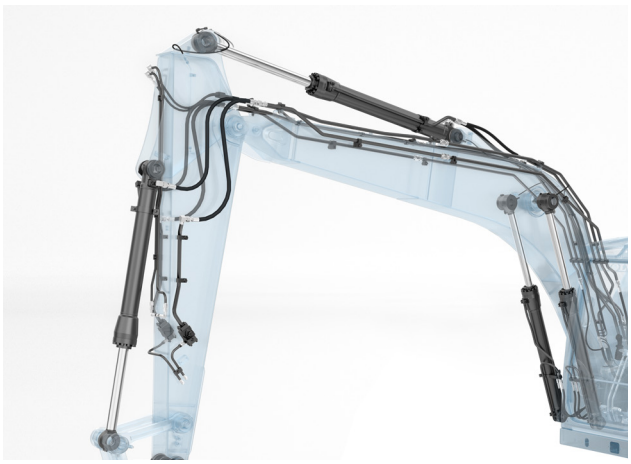
The EC210D can be equipped with either a top or side mounted Volvo hydraulic breaker built to break even most demanding materials. With consistent power and high breaking force you'll benefit from maximum impact and durability. Set your Volvo breaker at the right frequency to suit your application needs.

Attachment Management System

Pre-set and adjust hydraulic flow from the monitor inside the cab with this password-protected management system, providing storage for up to 20 different attachments for increased versatility. You can choose between one or two pump flow to maximize profits and productivity.

Optional auxiliary piping

The Volvo-designed hydraulic breaker / shear piping and quick coupler piping option provides optimum flow to the hydraulic attachments. State-of-the-art auxiliary lines allow the correct flow and pressure for special attachments.



Volvo EC210D in detail

Engine		
The engine, which provide excellent performance, is equipped with four cylinder, vertical, electronic-controlled, high pressure, fuel injectors, turbocharger with waste gate, air-to-air intercooler and water cooled diesel type.		
Engine	Volvo	D5E
Max. power at	r/min	2000
Net ISO 9249/SAEJ1349	kW	115
	hp	156
Gross, ISO 14396/SAEJ1995	kW	123
	hp	167
Max. torque	Nm	670
at engine speed	r/min	1600
No. of cylinders		4
Displacement	l	4.7
Bore	mm	108
Stroke	mm	130
Electrical System		
Well protected high-capacity electrical system. Waterproof double-lock connectors are used to ensure corrosion-free connection. Main relays and fuses are located in a shielded electrical distribution box. The master switch is standard. Advanced monitoring of machine functions and important diagnostic information is displayed on the I-ECU.		
Voltage	V	24
Batteries	V	2 x 12
Battery Capacity	Ah	120
Alternator	V/Ah	28/80
Start Motor	V-kW	24-5.5
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	12.3
Max. slew torque	kNm	76.7
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	183
Max. travel speed (low)	km/h	3.6
Max. travel speed (high)	km/h	5.8
Gradeabilty	°	35
Undercarriage		
The idlers, track links, upper and bottom rollers are built to withstand all elements and terrain.		
		EC210D
Track shoe		2 x 46
Link pitch	mm	190
Shoe width, triple grouser	mm	500/600/700/800/900
Shoe width, triple grouser (HD)	mm	600
Bottom rollers		2 x 7
Top roller		2 x2
		EC210DL
Track shoe		2 x 49
Link pitch	mm	190
Shoe width, triple grouser	mm	600/700/800
Shoe width, triple grouser (HD)	mm	600
Shoe width, double grouser		700
Bottom rollers		2 X 8
Top rollers		2 x 2
		EC210DLR
Track shoe		2 x 49
Link pitch	mm	190
Shoe width, triple grouser	mm	800/900
Bottom rollers		2 x 8
Top roller		2 x 2
Hydraulic System		
The hydraulic system and MCV (main control valve) use intelligent technology to control on-demand flow for high productivity, high-digging capacity 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 levelling 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.		
2 x Variable displacement axial piston pumps		
Maximum flow	l/min	2 x 212
Gear pump		
Maximum flow	l/min	1 x 18
Relief valve setting pressure		
Implement	MPa	32.4/4.3
Travel circuit	MPa	34.3
Slew circuit	MPa	27.9
Pilot circuit	Mpa	3.9
Hydraulic cylinders		
Mono boom		2
Bore x Stroke	ø x mm	125 x 1235
Arm		1
Bore x Stroke	ø x mm	135 x 1540
Bucket		1
Bore x Stroke	ø x mm	120 x 1065
Bucket for LR Boom		1
Bore x Stroke	ø x mm	100 x 865
Service Refill		
Fuel tank	l	375
Hydraulic system, total	l	300
Hydraulic tank	l	160
Engine oil	ltr	19.5
Engine coolant	ltr	15
Slew reduction unit	l	8.6
Travel reduction unit	l	2 x 5.8
Cab		
The Volvo cab features a brand new Volvo styling including a strong cab structure, slim pillars and a large glass area for good visibility, a spacious cab, an ergonomic switch layout, efficient air ventilation and a pressurized cab.		
Sound Level		
Sound level in cab according to ISO 6396		
LpA (standard)	dB(A)	73
LpA (tropical)	dB(A)	73.5
External sound level according to ISO 6395, GB16710-2010		
LwA (standard)	dB(A)	102.5
LwA (tropical)	dB(A)	103.5

Specifications

MACHINE WEIGHTS AND GROUND PRESSURE

Description	Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
Units	mm	kg	kPa	mm	kg	kPa	mm
EC210D	**EC210D, 5.7m boom, 2.5m Arm, 1.0m³ / 993 kg bucket, 4200 kg counteweight**				**EC210D, 5.7m boom, 2.2m Arm, 1.0m³ /993 kg bucket, 4200 kg, counterweight**		
Triple grouser, HD	600	22338	0.51	2800	22328	0.51	2800
EC210DL	**EC210DL, 5.7m boom, 2.5m Arm, 1.0m³ /993 kg bucket, 4200 kg counterweight**				**EC210D, 5.7m boom, 2.2m Arm, 1.0m³ /993 kg bucket, 4200 kg, counterweight**		
Triple grouser, HD	600	22878	0.48	2990	22868	0.48	2990
EC210DLR	EC210DLR, 8.85m boom, 6.25m, Arm, 0.52m / 460 kg bucket, 4900 counterweight						
Triple grouser	800	23454	0.37	3190			
	900	23734	0.33	3290			

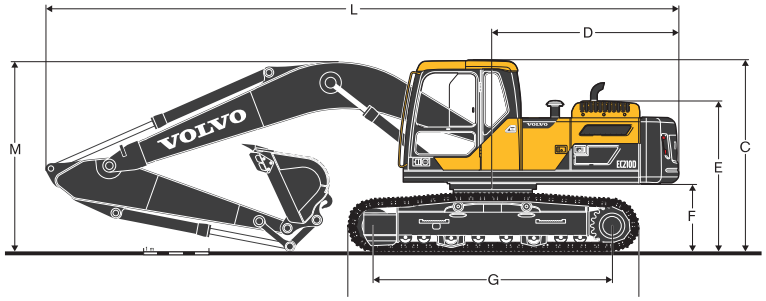
Specifications

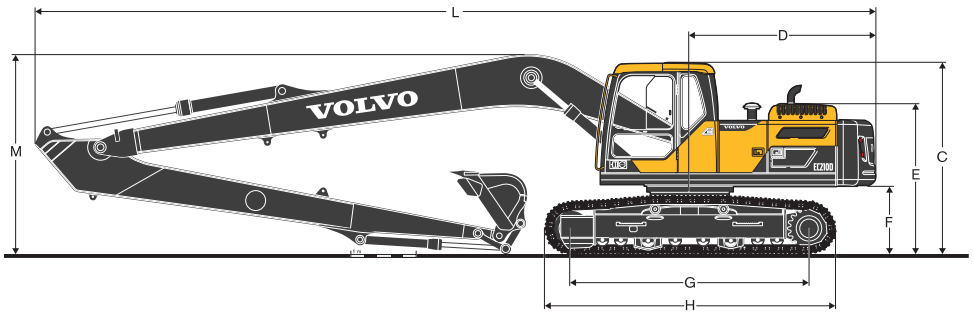
Bucket type		Capacity	Cutting width	Weight	Recommended maximum material density (kg/m³)						
					EC 210D STD 5.7m HD Boom			EC210DL STD 5.7m HD Boom			EC210DLR STD 8.85M LR Boom
		L	mm	kg	H 2.2m	H 2.5 m	G2.9 m	H 2.2m	H 2.5 m	G2.9 m	6.25 m
Direct Fit	GP	520	1020	454	X	X	X	X	X	X	B
		1220	1505	895	B	B	B	B	B	B	X
		1600 RH	1840	820	A	A	A	**A**	A	A	X
	HD	0.7 RL	1230	957	D	D	B	D	D	D	X
		1000	1295	993	D	C	C	D	C	C	X

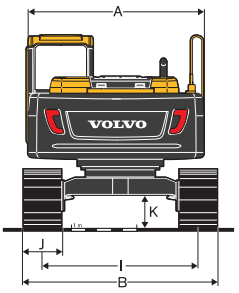
MAXIMUM MATERIAL DENSITY
A 1200~1300 kg/m³ Coal, Caliche, Shale
B 1400~1600 kg/m³ Wet earth and clay, Limestone, Sandstone
C 1700~1800 kg/m³ Granite, Wet sand, Well blasted rock
D 900 kg/m³ ~ Wet mud, Iron ore
X Not recommended

Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application. The recommendations are given as a guide only, based on typical operation conditions. Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

DIMENSIONS





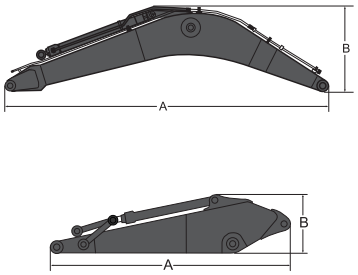


Description		Unit	EC210D	EC210DL	EC210DLR
Boom		**m**	**5.7**	**5.7**	**8.85**
Arm		**m**	**2.5**	**2.5**	**6.25**
A	Overall width of upper structure	mm	2700	2700	2700
B	Overall width	mm	2800	2990	3190
C	Overall height of cab	mm	2930	2930	2930
D	Tail swing radius	mm	2850	2850	2850
E	Overall height of engine hood	mm	2315	2315	2315
F	Counterweight clearance*	mm	1025	1025	1025
G	Tumbler length	mm	3370	3660	3660
H	Track length	mm	4160	4460	4460
I	Track gauge	mm	2200	2390	2390
J	Shoe width	mm	600	600	800
K	Min. ground clearance*	mm	460	460	460
L	Overall length	mm	9745	9745	12880
M	Overall height of boom	mm	3080	3080	3055

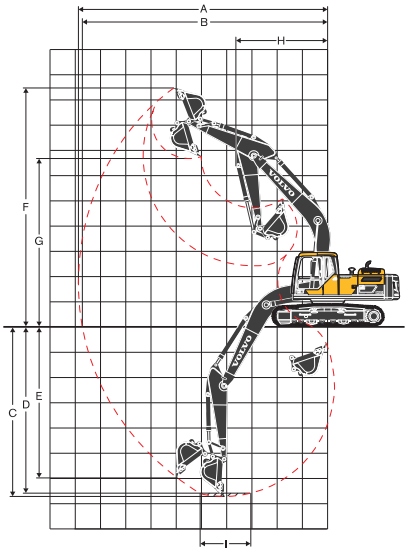
* Without shoe grouser

Specifications

Boom								
Description		**Unit**	**Mono**	**Long Reach**	**Arm**			**Long Reach**
		m	5.7	8.85	2.2	2.5	2.9	6.25
A	Length	mm	5910	9060	3270.0	3525.0	3910.0	7330.0
	Height	mm	1585	1460	1000.0	860.0	860.0	945.0
B	Width	mm	670	670	440.0	440.0	440.0	385.0
	Weight	kg	2110	2510	1139.0	1129.0	1130.0	1309.0



Working Ranges with Direct fit Bucket



WORKING RANGES						
Description		**Unit**	**EC210D / EC210DL**			**EC210DLR**
Boom		**m**	**5.7**			8.85
Arm		**m**	2.2	2.5	2.9	6.25
A	Max. digging reach	mm	9300	9580	9970	15800
B	Max. digging reach on ground	mm	9120	9410	9800	15700
C	Max. digging depth	mm	6060	6360	6760	12100
D	Max. digging depth (2.44m level)	mm	5820	6140	6570	12000
E	Max. vertical wall digging depth	mm	4800	5430	5900	11290
F	Max. cutting height	mm	9030	9240	9470	13300
G	Max. dumping height	mm	5240	6400	6620	10950
H	Min. front swing radius	mm	3730	3670	3640	5200

DIGGING FORCES WITH DIRECT FIT BUCKET							
Description			**Unit**	**EC210D / EC210DL / EC210DLR**			
Boom			**m**	**5.7 m**			**8.85**
Arm			**m**	**2.2**	**2.5**	**2.9**	**6.25**
Bucket radius			mm	1503	1503	1503	1248
Breakout force bucket	Normal	SAEJ1179	kN	119	120	120	68
	Power boost	SAEJ1179	kN	126	127	127	-
	Normal	ISO 6015	kN	135	136	136	77
	Power boost	ISO 6015	kN	143	144	144	-
Tearout force - dipper arm	Normal	SAE J1179	kN	125	111	96	44
	Power boost	SAE J1179	kN	133	118	102	-
	Normal	ISO 6015	kN	129	114	99	45
	Power boost	ISO 6015	kN	137	121	104	-
Rotation angle, bucket				179	175	175	178

LIFTING CAPACITY EC210D

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 the quick coupler from the following values.

	Lifting hook related to ground level		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
			Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	m
Boom: 5.7 m Arm: 2.5 m Shoe: 600 mm CWT: 4200 kg	7.5 m	kg									*5280	4930	5.6
	6.0 m	kg					*5120	4440			*5200	3500	6.9
	4.5 m	kg			*6520	*6520	*5600	4270	4560	2950	*4460	2880	7.6
	3.0 m	kg			*8380	6110	6320	4020	4460	2860	4040	2570	8.0
	1.5 m	kg			9430	5620	6060	3780	4340	2750	3890	2460	8.1
	0 m	kg			9170	5400	5880	3630	4260	2670	3980	2500	7.9
	-1.5 m	kg	*10270	*10270	9130	5370	5830	3580			4370	2730	7.4
	-3.0 m	kg	*13680	10550	9250	5470	5910	3660			5330	3330	6.5
	-4.5 m	kg	*10530	*10530	*7520	5760					*6610	5040	5.0

VOLVO

VolvoCE Dealer Network

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